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**FIGURE 1**

CTGCAGGCGTCGCGCCAATCTTCGCTCTGAGGTGCTGTCTCACCGGTGAGACCTGGAAGCGGGCGAGTCTCGTGC  
TGTGTTCGGACCTGCAGCCCCTGGCCTTCCGCCACCATGGAGTACCTCATCGGTATCCAAGGCCCCGACTATGTTC  
TTGTGCGCTCCGACCGGGTGGCCGCCAGCAATATTGTCCAGATGAAGGACGATCATGACAAGATGTTTAAGATGA  
GTGAAAAGATATTACTCCTGTGTGTTGGAGAGGCTGGAGACACTGTACAGTTTGCAGAATATATTCAGAAAAACG  
TGCAACTTTATAAGATGCGAAATGGATATGAATTGTCTCCCACGGCAGCAGCTAACTTCACACGCCGAAACCTGG  
CTGACTGTCTTCGGAGTCGGACCCCATATCATGTGAACCTCCTCCTGGCTGGCTATGATGAGCATGAAGGGCCAG  
CGCTGTATTACATGGACTACCTGGCAGCCTTGGCCAAGGCCCCCTTTGCAGCCCACGGCTATGGTGCCTTCCTGA  
CTCTCAGTATCCTCGACCGATACTACACACCGACTATCTCACGTGAGAGGGCAGTGGAACTCCTTAGGAAATGTC  
TGGAGGAGCTCCAGAAACGCTTCATCCTGAATCTGCCAACCTTCAGTGTTTGAATCATTGACAAAAATGGCATCC  
ATGACCTGGATAACATTTTCCTTCCCCAAACAGGGCTCCTTAACATCATGTCCTCCCTCCCCTTGCCAGGGAACCTT  
TTTTTTGATGGGCTCCTTTATTTTTTCTACTCTTTTCAGGCGCACTCTTGATAAATGGTTAATTCAGAATAAAG  
GTGACTATGGATATAATTGAAAAAA

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**FIGURE 2**

MEYLIQIGPDYVLVASDRVAASNIVQMKDDHDKMFKMSEKILLLCVGEAGDTVQFAEYIQKNVQLYKMRNGYEL  
SPTAAANFTRRNLDCLRSRTPYHVNLLLAGYDEHEGPALYYMDYLAALAKAPFAAHGYGAFTLSILDRIYTP  
ISRERAVELLRKCLEELQKRFILNLPFTSVRIIDKNGIHDLDNISFPKQGS



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FIGURE 3

CTCCGGCGCAGTGTGGGACTGTCTGGGTATCGGAAAGCAAGCCTACGTTGCTCACTATTACGTATAATCCTTTT  
 CTTTTCAAGATGCTGAGGAAGTGCACCATGGAGAGGAGGAGGTGGAGACTTTTGCCTTTCAGGCAGAAATTGCC  
 CAACTCATGTCCCTCATCATCAATACCTTCTATTCCAACAAGGAGATTTTCCTTCGGGAGTTGATCTCTAATGCT  
 TCTGATGCCTTGGACAAGATTGCTATGAGAGCCTGACAGACCCTTCGAAGTTGGACAGTGGTAAAGAGCTGAAA  
 ATTGACATCATCCCCAACCTCAGGAACGTACCCTGACTTTGGTAGACACAGGCATTGGCATGACCAAAGCTGAT  
 CTCATAAATAATTTGGGAACCATTGCCAAGTCTGGTACTAAAGCATTTCATGGAGGCTCTTCAGGCTGGTGCAGAC  
 ATCTCCATGATTGGGCAGTTTGGTGTGGCTTTTATTCTGCCTACTTGGTGGCAGAGAAAGTGGTTGTGATCACA  
 AAGCACAACGATGATGAACAGTATGCTTGGGAGTCTTCTGCTGGAGGTTCCCTTCACTGTGCGTGCTGACCATGGT  
 GAGCCCATTGGCAGGGGTACCAAAGTGATCCTCCATCTTAAAGAAGATCAGACAGAGTACCTAGAAGAGAGGCGG  
 GTCAAAGAAGTAGTGAAGAAGCATTCTCAGTTTCATAGGCTATCCCATCACCCCTTTATTTGGAGAAGGAACGAGAG  
 AAGGAAATTAGTGATGATGAGGCAGAGGAAGAGAAAGGTGAGAAAGAAGAGGAAGATAAAGATGATGAAGAAAA  
 CCCAAGATCGAAGATGTGGGTTTCAGATGAGGAGGATGACAGCGGTAAGGATAAGAAGAAGAAAACTAAGAAGATC  
 AAAGAGAAATACATTGATCAGGAAGAACTAAACAAGACCAAGCCTATTTGGACCAGAAAACCTGATGACATCACC  
 CAAGAGGAGTATGGAGAATTCTACAAGAGCCTCACTAATGACTGGGAAGACCCTTGGCAGTCAAGCACTTTTCT  
 GTAGAAGGTGAGTTGGAATTCAGGGCATTGCTATTTATTCTCGTCGGGCTCCCTTTTGACCTTTTTGAGAACAAG  
 AAGAAAAAGAACAACATCAAACCTCTATGTCCGCCGTGTGTTTCATCATGGACAGCTGTGATGAGTTGATACCAGAG  
 TATCTCAATTTTATCCGTGGTGTGGTTGACTCTGAGGATCTGCCCCTGAACATCTCCCGAGAAATGCTCCAGCAG  
 AGCAAAATCTTGAAAGTCATTGCAAAAACATTGTTAAGAAGTGCCTTGAGCTCTTCTCTGAGCTGGCAGAAGAC  
 AAGGAGAATTACAAGAAATTCTATGAGGCATTCTCAAAAATCTCAAGCTTGGAATCCACGAAGACTCCACTAAC  
 CGCCGCCGCTGTCTGAGCTGCTGCGCTATCATACCTCCAGTCTGGAGATGAGATGACATCTCTGTCAGAGTAT  
 GTTTCTCGCATGAAGGAGACACAGAAGTCCATCTATTACATCACTGGTGAGAGCAAAGAGCAGGTGGCCAACTCA  
 GCTTTTGTGGAGCGAGTGCAGGAAACGGGGCTTCGAGGTGGTATATATGACCGAGCCCATTGACGAGTACTGTGTG  
 CAGCAGCTCAAGGAATTTGATGGGAAGAGCCTGGTCTCAGTTACCAAGGAGGGTCTGGAGCTGCCTGAGGATGAG  
 GAGGAGAAGAAGAAGATGGAAGAGAGCAAGGCAAAGTTTGAGAACCTCTGCAAGCTCATGAAAGAAATCTTAGAT  
 AAGAAGGTTGAGAAGGTGACAATCTCCAATAGACTTGTGTCTTCACTTGTCTGATTGTGACCAGCACCTACGGC  
 TGGACAGCCAATATGGAGCGGATCATGAAAGCCAGGCATTTCGGGACAACTCCACCATGGGCTATATGATGGCC  
 AAAAAGCACCTGGAGATCAACCCTGACCACCCCATTTGTGGAGACGCTGCGGCAGAAGGCTGAGGCCGACAAGAAT  
 GATAAGGCAGTTAAGGACCTGGTGGTGTCTGCTGTTTGAACCGCCCTGCTATCTTCTGGCTTTTCCCTTGAGGAT  
 CCCCAGACCCACTCCAACCGCATCTATCGCATGATCAAGCTAGGTCTAGGTATTGATGAAGATGAAGTGGCAGCA  
 GAGGAACCCAATGCTGCAGTTTCTGATGAGATCCCCCTCTCGAGGGCGATGAGGATGCGTCTCGCATGGAAGAA  
 GTCGATTAGGTTAGGAGTTTCATAGTTGGAAAACCTTGTGCCCTTGTATAGTGTCCCCATGGGCTCCCACTGCAGCC  
 TCGAGTGCCCCCTGTCCACCTGGCTCCCCCTGCTGGTGTCTAGTGTTTTTTTTCCCTCTCCTGTCTTGTGTTGAA  
 GGCAGTAACTAAGGGTGTCAAGCCCCATTCCCTCTCTACTCTTGACAGCAGGATTGGATGTTGTGATTGTGGT  
 TTATTTTATTTTCTTCAATTTTGTCTGAAATTAAAGTATGAAAATAAAGAATATGCCGTTTTAAAAA  
 AAAAAAAAAAAAAAAAAA

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**FIGURE 4**

MPPEVHHGEEEVETFAFQAEIAQLMSLIINTFYSNKEIFLRELISNASDALDKIRYESLTDPSKLD SGKELKIDI  
IPNPQERTLTTLVDTGIGMTKADLINNLGTIAKSGTKAFMEALQAGADISMIGQFGVGFYSAYLVAEKVVVITKHN  
DDEQYAWESSAGGSFTVRADHGEPIGRGTKVILHLKEDQTEYLEERRVKEVVKKHSQFIGYPITLYLEKEREKEI  
SDDEAEEEEKGEKEEEDKDDEEKPKIEDVGSDEEDDSGKDKKKKTKKIKEYIDQEELNKTPIWTRNPDDITQEE  
YGEFYKSLTNDWEDHLAVKHFSVEGQLEFRALLFIPRRAPFDLFENKKKKNNIKLYVRRVFIMDSCDELIPEYLN  
FIRGVVDSEDLP LNISREMLQQSKILKVIRKNIVKKCLELFS ELAEDKENYKKFYEA FSKNLKLG IHEDSTNRRR  
LSELLRYHTSQSGDEMTSLSEYVSRMKETQKSIYYITGESKEQVANS AFVERVRKRGFEVVYMT EPIDEYCVQQL  
KEFDGKSLVSVTKGLELPED EEEEEKKMEESKAKFENLCKLMKEILDKKVEKVTISNRLVSSPCCIVTSTYGWTA  
NMERIMKAQALRDNSTMGYMAKKHLEINPDHP IVETLRQKAEADKNDKAVKDLVLLFETALLSSGFSLED PQT  
HSNRIYRMIKLGLGIDEDEVAAEEPNA AVPDEIPPLEGDEDASRMEEVD

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**FIGURE 5**

GAATTCGGGGCC**ATG**AGCTGCCCCGTGCCCGCCTGCTGCGCGCTGCTGCTAGTCCTGGGGCTCTGCCGGGCGCGT  
CCCCGGAACGCACTGCTGCTCCTCGCGGATGACGGAGGCTTTGAGAGTGGCGCGTACAACAACAGCGCCATCGCC  
ACCCCGCACCTGGACGCCCTTGGCCCGCCGCAGCCTCCTCTTTGCAATGCCTTCACCTCGGTACAGCAGCTGCTCT  
CCCAGCCGCGCCAGCCTCCTCACTGGCCTGCCCCAGCATCAGAATGGGATGTACGGGCTGCACCAGGACGTGCAC  
CACTTCAACTCCTTCGACAAGGTGCGGAGCCTGCCGCTGCTGCTCAGCCAAGCTGGTGTGCGCACAGGCATCATC  
GGGAAGAAGCACGTGGGGCCGAGACCCTGTACCCGTTTGACTTTGCGTACACGGAGGAGAATGGCTCCGTCCTC  
CAGGTGGGGCGGAACATCACTAGAATTAAGCTGCTCGTCCGGAATTCCTGCAGACTCAGGATGACCGGCCTTTC  
TTCTCTACGTGCGCTTCCACGACCCCCACCGCTGTGGGCACTCCAGCCCCAGTACGGAACCTTCTGTGAGAAG  
TTTGGAACGGAGAGAGCGGCATGGGTCTATCCCAGACTGGACCCCCAGGCCTACGACCACTGGACGTGCTG  
GTGCCTTACTTCGTCCCCAACACCCCGGCAGCCGAGCCGACCTGGCCGCTCAGTACACCACCGTCGGCCGCATG  
GACCAAGGAGTTGGACTGGTGTCCAGGAGCTGCGTGACGCCGGTGTCTGAACGACACACTGGTGATCTTCACG  
TCCGACAACGGGATCCCCCTTCCCCAGCGGCAGGACCAACCTGTACTGGCCGGGCACTGCTGAACCCTTACTGGTG  
TCATCCCCGGAGCACCCAAAACGCTGGGGCCAAGTCAGCGAGGCCTACGTGAGCCTCCTAGACCTCACGCCACC  
ATCTTGGATTGGTTCTCGATCCCGTACCCAGCTACGCCATCTTTGGCTCGAAGACCATCCACCTCACTGGCCGG  
TCCCTCCTGCCGGCGCTGGAGGCCGAGCCCTCTGGGCCACCGTCTTTGGCAGCCAGAGCCACCACGAGGTACCC  
ATGTCTTACCCCATGCGCTCCGTGCAGCACCGGCACCTTCCGCTCGTGCACAACCTCAACTTCAAGATGCCCTTT  
CCCATCGACCAGGACTTCTACGTCTCACCCACCTTCCAGGACCTCCTGAACCGCACCACAGCTGGTCAGCCCACG  
GGCTGGTACAAGGACCTCCGTCACTACTACCGGGCGCGCTGGGAGCTCTACGACCGGAGCCGGGACCCCCAC  
GAGACCCAGAACCTGGCCACCGACCCGCGCTTTGCTCAGCTTCTGGAGATGCTTCGGGACCAGCTGGCCAAGTGG  
CAGTGGGAGACCCACGACCCCTGGGTGTGCGCCCCGACGGCGTCTGGAGGAGAAGCTCTCTCCCCAGTGCCAG  
CCCCCTCCACAATGAGCTG**TGAC**CATCCCAGGAGGCCTGTGCACACATCCCAGGCATGTCCCAGACACATCCCACA  
CGTGTCCGTGTGGCCGGCCAGCCTGGGGAGTAGTGGAACAGCCCTTCCGTCCACACTCCCATCCAAGGAGGGTT  
CTTCCTTCTGTGGGGTCACTCTTGCCATTGCCTGGAGGGGGACCAGAGCATGTGACCAGAGCATGTGCCCAGCC  
CCTCCACCACCAGGGGCACTGCCGTCTATGGCAGGGGACACAGTTGTCTTGTGTCTGAACCATGTCCCAGCACGG  
GAATTCTAGACATACGTGGTCTGCGGACAGGGCAGCGCCCCAGCCCATGACAAGGGAGTCTTGTTTTCTGGCTT  
GGTTTGGGGACCTGCAAAATGGGAGGCCTGAGGCCCTTTCAGGCTTTGGCAGCCACAGATACTTCTGAACCCTTC  
ACAGAGAGCAGGCAGGGGCTTCGGTGCCGCGTGGGCAGTACGCAGGTCCCACCGACACTCACCTGGGAGCACGGC  
GCCTGGCTCTTACCAGCGTCTGGCCTAGAGGAAGCCTTTGAGCGACCTTTGGGCAGGTTTCTGCTTCTTCTGTTT  
TGCCCATGGTCAAGTCCCTGTTCCCCAGGCAGGTTTTCAGCTGATTGGCAGCAGGCTCCCTGAGTGATGAGCTTGA  
ACCTGTGGTGTTTCTGGGCAGAAGCTTATCTTTTTTGAGAGTGTCCGAAGATGAAGGCATGGCGATGCCCGTCTT  
CTGGCTTGGGTAAATTCTTCGGTGACACTGGCATTGCTGGGTGGTGATGCCCCGTCTCTGGCTTGGGTAAATTCT  
TCGGTGACACTGGCGTTGCTGGGTGGCAATGCCCGTCTCTGGCTTGGGTAAATTCTTCGGTGACACTGGCGTTG  
CTGGGTGGCGATGCCCGTCTCTGGCTTGGGTAAATTCTTGATGACGTCGGCGTTGCTGGGAGAATGTGCCGTT  
CCTGCCCTGCCTCCACCCACCTCGGGAGCAGAAGCCCGGCCTGGACACCCCTCGGCCCTGGACACCCCTCGAAGGA  
GAGGGCGCTTCCTTGAGTAGGTGGGCTCCCCTTGCCCTTCCCTCCCTATCACTCCATACTGGGGTGGGCTGGAGG  
AGGCCACAGGCCAGCTATTGTAAAAGCTTTTT

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**FIGURE 6**

MSCPVPACCALLLVGLCRARPRNALLLLADDGGFESGAYNNSAIATPHLDALARRSLLFRNAFTSVSSCSPSRA  
SLLTGLPQHONGMYGLHQDVHHFNSFDKVRSLPLLLSQAGVRTGIIGKKHVGPETVYPDFAYTEENGSVLQVGR  
NITRIKLLVRKFLQTQDDRFFFLYVAFHDPHRCGHSQPQYGTFCFKFGNGESGMGRIPDWTPQAYDPLDVLVPYF  
VPNTPAARADLAAQYTTVGRMDQGVGLVLQELRDAGVLNDTLVIFTSDNGIPFP SGRTNLYWPGTAEP LLVSSPE  
HPKRWGQVSEAYVSLLDLTPTILDWFSIPYPSYAIFGSKTIHLTGRSLLPALEAEPLWATVFGSQSHHEVTMSYP  
MRSVQHRHFRVLVHNLNFKMPFP IDQDFYVSPTFQDLLNRRTTAGQPTGWYKDLRHYYYRARWELYDRSRDPHETQN  
LATDPRFAQLLEMLRDQLAKWQWETHDPWVCAPDGVLEEKLSPOCQPLHNEL

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**FIGURE 7**

TATATTGGCAGTTATTGAGGGTAAAGCAATATATTGTAACAGAATGTATAAAATATTTTTGATAAAACAGTCTATA  
TTTTATTAAAAAATGAATTATAACCCATTTTCAGTTTTGCCTGCATCATAAGAGTGAGCACTCCATTGCTTTCTT  
TCCTGGCCACACTGCTACAATCCAGCACTAACTATCCATGTCCAGGGTAAGGATCGAGATCGAGAAGCCACACT  
GCCAGTGAAAAAGCTACGCTTTTACTGCATAAATTAGAGGAAGCAATTTGGAACAACGGAACCTTCAAACCTATA  
AATACTGAATTATCGAACACTTGCCAGGCACTTCAGCAGAAGACAAGGAACTGAAGAAGCTTTTTAGATGAGGA  
ATTTCTCACTATGATTCCCTGTCTGCGCAGATGCAATTCAACAACCTCTTCAAGAAAAATTGAAGCAGTGTTG  
CCACAAACTATATGGTGGTCAAGAAGCAAGAATACATCAGACACCCCTGACCTTGAAACATACGTGCTGGTACAC  
ACCTCTGCTGGATGCTTATCTCTGGATAGTTTTACAGCAGTTCCAACCTGGAATCAACACCTTTCTCAGGTGT  
AGCCAACCAAATCCCACTCTGTGTGAAAGGCCACATATGGAGAAGTAAAGGATGGTGCTTTGGATGTAAAAAG  
ACAACACAAGTGCCAGGCCCCACAAGTGGCCCCAGCCCAGGAACGAATCTCTCAGGCTGCATCAGGATGAATGA  
TGACCCAAGTATGGAAGAGAATGGTGTGAACGCGTGTGTCTGAGAGCCTGCTGCAGTCCAGGGGATATTCCTC  
ACTACCATTACCCAGACACACTTCATCGACAGACGGTACTATAACTTCAAGTGATCCTGGATTAGAAATTCCTGAA  
TATGGCTTCTTGTGACCTTGACAGAACTCGCTCTGTGAAGAAAGAGGAGGATACAAGATCAGCTTCTCCCACGAT  
AGAGGCCCAAGGCACAAGTCCAGCTCATGATAATATTGCATTCCAAGACTCTACGAGTAAGGATAAAACCATATT  
AAATCTGGAAGCCAAAGAGGAACCAGAAACAATAGAAGAACATAAAAAAGAACATGCTTCAGGAGACTCTGTGGT  
TTCCCTCTTCTGTAACTGTGAAATCGGTTAACGTTAGACAAAGTGAGAACACTTCTGCTAATGAGAAGGA  
GGTGGAGGCAGAAATTTCTCAGATTATCTTTGGGATTTAAGTGTGACTGGTTTACCTTGGAGAAGAGAGTGAAGCT  
TGAAGAGAGGTCCCGTGACTGGGCAGAGAAAATTTGAAGAAAGAAATCACTAACTCTTTAAACTATTAGAGTC  
TTTAACACCTCTGTGTGAAGATGACAACCAGGCACAGGAAATCATTAAGAAGCTGGAGAAGAGTATAAAGTTTCT  
TAGCCAGTGTGCAGCACGAGTGGCCAGTAGGGCTGAGATGTTGGGAGCCATCAATCAGGAAAGCCGGGTTAGTAA  
AGCAGTTGAAGTGATGATTGAGCACGTAGAAAACCTTGAAGAGGATGTATGCCAAAGAGCACGCTGAATTAGAAGA  
ACTGAAACAGGTTCTTCTGCAGAATGAAAGGTCTTTCAATCCTCTTGAAGATGATGATGACTGCCAAATTAAGAA  
ACGTTTCACTTCTCTAACTCCAAGCCATCTTCTCTACGAAGAGTGACTATTGCCTCTTTACCCAGAAATATTGG  
AAATGCAGGAATGGTGGCTGGGATGGAAAATAATGATCGATTGATGAGGTAAGGTAAGCAGTTGGCGTATTTTGGG  
GTCAAAGCAGAGTGAACACCGTCCCTCATTACCTCGATTTATTAGCACCTATTCCTGGGCAGATGCTGAAGAAGA  
AAAATGTGAACTAAAACTAAAGATGACTCAGAGCCATCTGGAGAAGAAACAGTAGAAAGGACAAGGAAGCCAAG  
TCTTTCTGAAAAGAAAAATAATCCATCAAAGTGGGATGTCTCTTCAGTTTATGACACAATAGCTTCTTGGGCAAC  
AAATCTCAAGTCTCCATCAGAAAGGCTAATAAGGCCCTCTGGCTCTCTATTGCATTCAATTGTAAGTTTGCAGC  
TTTGATGAGCTTCTCAGAGGCAATTATTCCAGAAGTCTGTGGATGCCGCTCCACACAGCAAGAGGACTCATG  
GACGTCTCTAGAACATATCTTGTGGCCATTTACCAGACTCCGACACAATGGGCCACCACAGTGTGACAGCAGGA  
CATCCTAATATATGGATCTTGATTTTAAAGTTTCAAGTATCTGAACTTCGTAAATTAGTAACTTTTAGCTGGGAAA  
GTATAGCATGAAACCAGAGGTTCTCAGAATGACCGTAAGATAGCTTACATTTCTCTTTTTGCCTTTATCTCCCC  
AACTAAAATACAATGGG

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**FIGURE 8**

MESTPFGVANQIHTLCERPTYGEVKDGDVLRQHKCPGPTSGPSPGTNLSGCIRMNDDPSMEENGVERVCPE  
LLQSRGYSSLPLPRHTSSTDGTITSSDPGLEILNMASCDLDRNSLCKKEEDTRSASPTIEAQGTSPAHDNIAFQD  
STSKDKTILNLEAKEEPETIEEHKKEHASGDSVVSPLPVTTVKSVNVRQSENTSANEKEVEAEFLRLSLGFKCDW  
FTLEKRVKLEERSRDWAEENLKKEITNSLKLLESITPLCEDDNQAQEI IKKLEKSIKFLSQCAARVASRAEMLGA  
INQESRVSKAVEVMIQHVENLKRM YAKEHAELEELKQVLLQNER SFNPLEDDDDCQIKKRSASLNSKPSSLRRVT  
IASLPRNIGNAGMVAGMENNDRF SRRSSSWRILGSKQSEHRPSLPRFISTYSWADAE EEEKCELKTKDDSEPSGEE  
TVERTRKPSLSEKKNNPSKWDVSSVYDTIASWATNLKSSIRKANKALWLSIAFIVLFAALMSFLTGQLFQKSVD  
APTQQEDSWTSLEHILWPFTRLRHNGPPP

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**FIGURE 9**

AGTAATTCCGGGAAGCTCGCCTTACAACCTCCGCGCGGCCTCGGCCCCCTGCGCCGCCCGCCCCACAACAAACTC  
AGCGCAGCGCTCCCGGGCGCCCGGTTTCAGAGCGACCTGCGGCTCAGAGCGGAGGGGAGACTGACCGGAGCGCGGA  
TCGGGACAGCGGCCGGGACAGCGGCGAGACGCGCGTGTGTGAGCGCGCCGGACCAAGCGGGCCAGAAAGCGGGTC  
TGCAGCCCAGAGGGCACCTTCTGCAAAACCATGTCTGTGGATCCCCTATCCAGCAAAGCTCTAAAAGATCAAGCGAGA  
GCTGAGCGAGAACACGCCGCACCTGTTCGGACGAGGCGCTGATGGGGCTGTTCGGTGC GCGAGCTGAACCGGCATCT  
GCGCGGGCTCTCCGCCGAGGAGGTGACACGGCTCAAGCAGCGGCGCCGCACACTCAAAAACCGTGGCTACGCCGC  
CAGCTGCCGCGTGAAGCGCGTGTGCCAGAAGGAGGAGCTGCAGAAGCAGAAGTCGGAGCTGGAGCGCGAGGTGGA  
CAAGCTGGCGCGCGAGAACGCCGCCATGCGCCTGGAGCTCGACGCGCTGCGCGGCAAGTGCAGGGCGCTGCAGGG  
CTTCGCGCGCTCCGTGGCCGCCGCCCGCGGGCCCCGCCACGCTCGTGGCGCCGGCCAGCGTCATCACCATCGTCAA  
GTCCACCCCGGGCTCGGGGTCTGGCCCCGCCACGGCCCCGACCCCGCCACGGCCCCGGCCTCCTGCTCCTAGTG  
CCCGCCCCCGCCATGCCTCAGCCACGCCCTCCGGCTCAGCTCCCTCCCCAAAGTGCCTGAGCGCCGCCCTCTGT  
GCCCAGGTCCCATTTCTCTGCAGCACTGGCCCCCTTGGTGCACACACATTCCCTTCGTGGGCCCTGTCTTCCTCTT  
GCAGCCCCCAAAGTGGGACCGAATGACCCCTGGGAAGGGGAAGTGGGTAGGTTGGGGATGGGGCAGAGGTCTGG  
ATCTGGGATCGCCCTTGGCTGAAAAGTTTAGCCTTTTTAGATTGAGAGATACAGAGCCGGCTTAGAGAACAGCTGT  
TGGGGGAGAAGAGGGCACCCCTCATCTTGGAAACTGCTCTTATTGTGCCAATATGCCCTCCAAACCTCCCAGGA  
TTCAAAGCTAGGTTTGGCTGTCTGTGACTTACGGGACCGTCCCTGCTGAGAAATTGCACTGAAGAGATGCCCCAC  
CTCTGGTTGGGCCTGGGGGTGCCTGGCCTTCCGAAACTAAAAGAGTGGGTGGGAAGACTAGTGAAACCCAGTTCA  
CGGATGGGGAAACAGGCCTGAGGTCACATTTCACTTAGTGGTTGTGTTGGGACCAAAACCTGGGTGTCCTCACTG  
CTGCCCTGAGTCCAGCCATGGTTTTTCAGGGGGACAGTGGACAGGGACTCAGAAATGTGGTGGGAGGGCCTCCCTG  
GCTTGGGAGACCGCTCTCTGCAAGGGAGGGGGAGAGAAGCAGAGGGAGAGAGAAGGTGACACGGATGGAAGAGTG  
GGAAGGAGCTGGCCTGGCTCAGCCCTAGGCTGTCCCTGCAGCCAGGGTGTCCGGGGGCTGGCCAGTCAGAGAAAG  
GGGGCCATGGACTGCTGTGGCAAATAGGGAGACAAGGAGACAGACCCTGCAGTCCTACTACAGTCTGGAGTGGGG  
TCCTAAGAAGAAGGGTCCACCTCAACCCCTGTCTAGTGTCCACTGTGGGGTGGGGGCTGACCCCTGCCTTTGATT  
GTCATTCTCCTGGGAAGCCCAGTCTCAGTCCCTCCCCAACACTGTCCACACTGCCCCCTCCCCACTGTTTATTTA  
TTGCACGGATCTAAGTTATTCTCCCCAGCCAGAGCCCGAGCTCCTGCTCCCTGGGAAAAGTGCGGTATGGCCCTG  
AGCTGGGCTTTATATTTTATATCTGCAAAATAAATCACATTTTATCTTATATTTAGGGAAAGCCGGAGAGCAACAA  
CAAAAAATGTTTAAAGCCGGGCGCGGTGGCTCACATCTGTAATCCCAGCACTTTGGGAGTCCAAGGAGGGGGATCG  
CTTGAGTCCAGGAGTTTGGAGACCAGCCTGGACAACATGGTGAAACCCCGTCTCTACAAAAAATACAAAAATTAGC  
CATGCATGGTGGCTCATGCCTGTAGTCCCAGCTACTTGGGAGGCTGAGGCAGGAGGATCACTTAAGCCCAGAAGG  
CAGAGGTTGTAGTGAGCTGAGATCGCACCCTGCACTCCAGCCTGGGCAACATAGCAAAATCCTGTCTCAAAAAA  
AAAGTTAAAAAATATTGCCCGGCTCCTAGAATTTATTTATTTTCTGACTTACAGCAAGCGAGTTATCGTCTTCTG  
TATTTTGTAGACTTTCTAAATAAAGTCAAATTCCTTTCTTTTCCACAGAGAAAAAA

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**FIGURE 10**

MSVDPLSSKALKIKRESENTPHLSDEALMGLSVRELNRHLRGLSAEEVTRLKQRRRTLKNRGYAASCRVKRVCQ  
KEELQKQKSELEREVDKLARENAAMRLELDALRGKCEALQGFARSVAAARGPATLVAPASVITIVKSTPGSGSGP  
AHGPDPAHGPPASCS



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**FIGURE 11**

ACGCGTCCGCTTCGGAATGAGAGACTCAACCATAATAGAAAGAATGGAGAACTATTAACCACCATTCTTCAGTGG  
GCTGTGATTTTCAGAGGGGAATACTAAGAAATGGTTTTCCATACTGGAACCCAAAGGTAAAGACACTCAAGGACA  
GACATTTTTGGCAGAGCATAGATGAAAAATGGCAAGTTCCTGGCTTTCCTTCTGCTCAACTTTTCATGTCTCCCTC  
TTCTTGGTCCAGCTGCTCACTCCTTGCTCAGCTCAGTTTTCTGTGCTTGGACCCTCTGGGCCCATCCTGGCCATG  
GTGGGTGAAGACGCTGATCTGCCCTGTACCTGTTCCCGACCATGAGTGCAGAGACCATGGAGCTGAGGTGGGTG  
AGTTCCAGCCTAAGGCAGGTGGTGAACGTGTATGCAGATGGAAGGAAGTGAAGACAGGCAGAGTGCACCATAT  
CGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTGCAGGGAAGGCTGCTCTCCGAATACACAACGTACAGCC  
TCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATGGTGACTTCTACGAAAAAGCCCTGGTGGAGCTGAAGGTT  
GCAGCATTGGGTTCTGATCTTCACATTGAAGTGAAGGGTTATGAGGATGGAGGGATCCATCTGGAGTGCAGGTCC  
ACTGGCTGGTACCCCCAACCCCAAATAAAGTGGAGCGACACCAAGGGAGAGAACATCCCGGCTGTGGAAGCACCT  
GTGGTTGCAGATGGAGTGGGCTGTATGCAGTAGCAGCATCTGTGATCATGAGAGGCAGCTCTGGTGGGGGTGTA  
TCCTGCATCATCAGAAATTCCTCCTCGGCCCTGGAAAAGACAGCCAGCATATCCATCGCAGACCCCTTCTTCAGG  
AGCGCCAGCCCTGGATCGCGGCCCTGGCAGGGACCCTGCCTATCTCGTTGCTGCTTCTCGCAGGAGCCAGTTAC  
TTCTTGTGGAGACAACAGAAGGAAAAAATTGCTCTGTCCAGGGAGACAGAAAGAGAGCGAGAGATGAAAGAAATG  
GGATACGCTGCAACAGAGCAAGAAATAAGCCTAAGAGAGAAGCTCCAGGAGGAACTCAAGTGGAGGAAAATCCAG  
TACATGGCTCGTGGAGAGAAGTCTTTGGCCTATCATGAATGGAAAATGGCCCTCTTCAAACCTGCGGATGTGATT  
CTGGATCCAGACACGGCAAACGCCATCCTCCTTGTTTTCTGAGGACCAGAGGAGTGTGCAGCGTGTGAAGAGCCG  
CGGGATCTGCCAGACAACCTGAGAGATTTGAATGGCGTTACTGTGTCTTGGCTGTGAAAACCTTCACATCAGGG  
AGACATTACTGGGAGGTGGAAGTGGGGGACAGAAAAGAGTGGCATATTGGGGTATGTAGTAAGAACGTGGAGAGG  
AAAAAAGGTTGGGTCAAAATGACACCGGAGAACGGATACTGGACTATGGGCCTGACTGATGGGAATAAGTATCGG  
GCTCTCACTGAGCCAGAACCAACCTGAACTTCCTGAGCCTCCTAGGAAAGTGGGGATCTTCTGACTATGAG  
ACTGGAGAGATCTCGTTCTATAATGCCACAGATGGATCTCATATCTACACCTTTCGCACGCTCTTTCTCTGAG  
CCTCTATATCCTGTTTTAGAAATTTGACCTTGGAGCCCACTGCCCTGACCATTTGCCCAATACCAAAGAAGTA  
GAGAGTTCCCCCGATCCTGACCTAGTGCCTGATCATTCCCTGGAGACACCACTGACCCCGGGCTTAGCTAATGAA  
AGTGGGGAGCCTCAGGCTGAAGTAACATCTCTGCTTCTCCCTGCCACCCCTGGAGCTGAGGTCTCCCTTCTGCA  
ACAACCAATCAGAACCATAAGCTACAGGCACGCACTGAAGCACTTTACTGATATTTCATTCCATTATTCATATGA  
CAGTTGTTTTGAGTTTTCGTACCACCTTATTGTCCCCTTATACAGATAAGGAAACTGGGGTGCAGAAAGGTGAATT  
AACTTTACAAAGTAGACATGACAAGTGAACAGCAGAGCTGGGATCTAAACAGCAATAACTAACATTAAACAGAGAA  
TTTAAATGTTCTTAGTGCTGTGTTATAAGCTTTGGTGGATGTCACTCCTTTAATCCTCACAAACCCCTGTGCGG  
TAGTCATATTTTGCAAGTATGGAAGCTGAGGCAGGGCAACATGAAGTAACCTTACATAATTCATACAGTAATTTGT  
GCAGTTGGGAGATGTTACGCCTTAGTCCCTGGCTAATTGCCTGTTCTTTTCCAGCCTGATTTTTTTTCCACAGG  
AAGAGCCACATGTAGCCCTGAGGTTTCCTTCCAGGACAGCTGCAGGGTAGAGATCATTTTAAGTGCTTGTGGA  
GTTGACATCCCTATTGACTCTTTCCAGCTGATATCAGAGACTTAGACCCAGCACTCCTTGATTAGCTCTGCAG  
AGTGTCTTGGTTGAGAGAATAACCTCATAGTACCAACATGACATGTGACTTGGAAAGAGACTAGAGGCCACACTT  
GATAAATCATGGGGCACAGATATGTTCCACCCAAACAAATGTGATAAGTGATTGTGCAGCCAGAGCCAGCCTTCC  
TTCAATCAAGTTTCCAGGCAGAGCAAATACCCTAGAGATTCTCTGTGATATAGGAAATTTGGATCAAGGAAGCT  
AAAAGAATTACAGGGATGTTTTTAATCCCACTATGGACTCAGTCTCCTGGAAATAGGTCTGTCCACTCCTGGTCA  
TTGGTGGATGTTAAACCCATATTCCTTTCAACTGCTGCCTGCTAGGGAAAAGTGTCTCCTCATTATCATCACTATT  
ATTGCTCACCCTGTATCCCCTCTACTTGGCAAGTGGTTGTCAAGTTCTAGTTGTTCAATAAATGTGTTAATAAT  
GAAAAAAAAA

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**FIGURE 12**

MKMASSLAFLLLNFHVSFLVQLLTPCSAQFSVLGSPGPIILAMVGEDADLPCHLFPTMSAETMELRWVSSSLRQV  
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGFYEKALVELKVAALGSDL  
HIEVKGYEDGGIHLECRSTGWYPQPQIKWSDTKGENIPAVEAPVVADGVGLYAVAASVIMRGSSGGGVSCIIRNS  
LLGLEKTASISIA DPFFRSAQPWIAALAGTLPISLLLLAGASYFLWRQQKEKIALSRETEREREMKEMGYAATEQ  
EISLREKLQEELKWRKIQYMARGEKSLAYHEWKMALFKPADVILDPDTANAILLVSEDQRSVQRAEEPRLPDNP  
ERFEWRYCVLGCENFTSGRHYWEVEVGDRKEWHIGVCSKNVERKKGWVKMTPENGYWTMGLTDGNKYRALTEPRT  
NLKLPEPPRKVGIFLDYETGEISFYNATDGSHIYTFPHASFSEPLYPVFRILTLEPTALTICPIPEVESSPDPD  
LVPDHSLETPLTPGLANESGEPQAEVTSLLLPAHPGAEVSPSATTNQNHKLQARTEALY

**FIGURE 13A**

CCGGGCTGCGCGGCGAGGCTGAGCCGGGCCCGGGCGCCGGGGCCGGGGCGGGCTGGCGCGGGCAGGAAGCGCCTC  
GCGGACCCGGGGCCCGCCCCCGCTCCCGCCGCCTCCGGGCTCCCGGCTCCCGGCCGCGCCTCGCCCCATGCACT  
CGCCGCGCGCGCAGCCCGCGCACGCCCGGATGGCTCCTCGCGCCGCGGGCGGCGCACCCCTTAGCGCCCGGGCC  
GCCGCGCCAGCCCCCGCGTTCCAGACGCCCGCGGGTGCCCGGTGCCGCTGCTGTTGCTGCTGCTCCTGGGG  
GCGGCGCGGGCGGGCGCCCTGGAGATCCAGCGTCGGTTCCCTCGCCACGCCACCAACAACCTTCGCCCTGGAC  
GGCGCGGCGGGGACCGTGACCTGGCGGCCGTCAACCGCCTCTATCAGCTGTCGGGCGCCAACCTGAGCCTGGAG  
GCCGAGGCGGGCGTGGGCCCGGTGCCGACAGCCCGCTGTGTACGCTCCGCACTGCCGAGGCCTCGTGCGAG  
CACCCGCGGCGCCTCACGGACAACATAACAAGATCCTGCAGCTGGACCCCGGCCAGGGCCTGGTAGTCGTGTGC  
GGGTCCATCTACAGGGCTTCTGCCAGCTGCGGCGCCGGGGTAACATCTCGGCCGTGGCCGTGCGCTTCCCGCCC  
GCCGCGCCGCCCGGAGCCCGTCACGGTGTTCCCGAGCATGCTGAACGTGGCGGCCAACACCCGAACGCGTCC  
ACCGTGGGGCTAGTTCTGCCTCCCGCCGCGGGCGCGGGGGGAGCCCGCTGCTCGTGGGCGCCACGTACACCGGT  
TACGGCAGCTCCTTCTTCCCGCGCAACCGCAGCCTGGAGGACCACCGCTTCGAGAACAGCCCCGAGATCGCCATC  
CGCTCCCTGGACACGCGCGGCGACCTGGCCAAGCTCTTACCTTCGACCTCAACCCCTCCGACGACAACATCCTC  
AAGATCAAGCAGGGCGCCAAGGAGCAGCACAAGCTGGGCTTCGTGAGCGCCTTCTGCACCCGTCCGACCCGCCG  
CCGGGTGCACAGTCTTACGCTACCTGGCGCTCAACAGCGAGGCGCGCGGGGCGACAAGGAGAGCCAGGCGCGG  
AGCCTGCTGGCGCGCATCTGCCTGCCCCACGGCGCCGGCGGGCGACGCCAAGAAGCTCACCGAGTCTACATCCAG  
TTGGGCTTGCACTGCGCGGGCGGCGGGGCCGCGGCGACCTCTACAGCCGCTGGTGTGCGTCTTCCAGCCCGG  
GAGCGGCTCTTTGCTGTCTTCGAGCGGCCCCAGGGTCCCCCGGGCCCGCGCTGCTCCGGCCGCACTCTGCGCC  
TTCCGCTTCGCCGACGTGCGAGCCGCCATCCGAGCTGCGCGCACCGCCTGCTTCGTGGAACGGCGCCCGACGTG  
GTGGCGGTGCTCGACAGCGTGGTGCAGGGCACGGGACCGGCTGCGAGCGCAAGCTCAACATCCAGCTCCAGCCA  
GAGCAGCTGGACTGTGGAGCTGCTCACCTGCAGCACCGCTGTCCATCTGCAGCCCTGAAGGCCACGCCCGTG  
TTCCGCGCCCCGGGCTCACCTCCGTGGCCGTGGCCAGCGTCAACAATAACAGCGGTCTTCTGGGCACGGTC  
AACGGGAGGCTTCTCAAGATCAACCTGAACGAGAGCATGCAGGTGGTGAAGCAGGCGGGTGGTGAAGTGTGGCCTAT  
GGGGAGCCCGTGACCATGTGATGCAGTTTGACCCAGCAGACTCCGTTTACCTTTACCTGATGAGCTCCACCAG  
ATGGCCAGGGTGAAGGTGCGCCCTGCAACGTGCACTCCACCTGTGGGGACTGCGTGGGTGCGGCGGACGCCTAC  
TGCGGCTGGTGTGCCCTGGAGACGCGGTGCACCTTGACGAGGACTGCACCAATTCCAGCCAGCAGCATTTCTGG  
ACCAGTGCCAGCGAGGGCCCCAGCGCTGTCTGCCATGACCGTCTGCTTCCGAGATCGATGTGCGCCAGGAG  
TACCCAGGCATGATCCTGCAGATCTCGGGCAGCCTGCCAGCCTCAGTGGCATGGAGATGGCCTGTGACTATGGG  
AACAACATCCGCACTGTGGCTCGGGTCCCAGGCCCTGCCTTTGGTACCAGATTGCCTACTGCAACCTCCTGCCG  
AGGGACCAGTTTCCGCCCTTCCCCCAACCAGGACCACGTGACTGTTGAGATGTCTGTGAGGGTCAATGGGCGG  
AACATCGTCAAGGCAATTTACCATCTACGACTGCAGCCGCACTGCACAAGTGTACCCCAACAGCCTGTACC  
AGCTGCCTGTGCGCACAGTGGCCCTGTTTCTGGTGCAGCCAGCAGCACTCCTGTGTTTCCAACAGTCTCGGTGC  
GAGGCCTACCAAACCCACGAGCCCTCAGGACTGCCCCGGACCCCTGCTCTACCCCTGGCACCCGTGCCTACG  
GGTGGCTCCCAGAACATCCTGGTGCCCTGCGCAACACTGCCTTTTCCAGGGTGACCCCTGGAGTGTAGTTTT  
GGGCTGGAGGAGATCTTCGAGGCTGTGTGGGTGAATGAGTCTGTTGTACGCTGTGACCAGGTGGTGTGACACG  
ACCCGGAAGAGCCAGGTGTTCCCGCTCAGCCTCCAATAAAGGGGCGGCCAGCCCGATTCTGGACAGCCCTGAG  
CCCATGACAGTCATGGTCTATAACTGTGCCATGGGCAGCCCCGACTGTTCCAGTGCTGGGCCGCGAAGACCTG  
GGTACCTGTGCATGTGGAGTGATGGCTGCCGCTGCGGGGGCCTCTGCAGCCATGGCTGGCACCTGCCCCGCC  
CCCGAGATCCGCGCGATTGAGCCCTGAGTGGCCGCTTGACGGTGGGACCCTGCTGACCATCCGAGGAAGGAAC  
CTGGGCGGGCGGCTCAGTGACGTGGCCACGGCGTGTGGATTGGTGGTGTGGCCTGTGAGCCACTGCCTGACAGA  
TACACGGTGTGCGAGGAGATCGTGTGTGTACAGGGCCAGCCCCAGGACCACTCTCAGGTGTGGTGACCGTGAAC  
GCCTCTAAGGAGGGCAAGTCCCGGGACCGCTTCTCCTACGTGCTGCCCCCTGGTCCACTCCCTGGAGCCTACCATG  
GGCCCCAAGGCCGGGGGACACAGGATCACCATCCATGGGAATGACCTCCATGTAGGCTCCGAGCTCCAGGTCTGTG  
GTGAACGACACAGACCCCTGCACGGAGCTGATGCGCACAGATACCAGCATCGCCTGCACCATGCCTGAGGGGGCC  
CTGCCGGCTCCGGTGCCTGTGTGTGTGCGCTTCGAGCGTCGGGGCTGCGTGCACGGCAACCTCACCTTCTGGTAC  
ATGCAAGAACCCGGTCATCACGGCCATCAGTCCCCGCGCAGCCCTGTGAGTGGCGGACGACCATCACAGTGGCT  
GGTGAGCGTTTCCACATGGTGCAGAAATGTGTCCATGGCCGTCCACCACATTGGCCGGGAGCCACGCTCTGCAAG  
GTTCTCAACTCCACCCTCATCACCTGCCCGTCCCCGGGGCCCTGAGCAACGCATCAGCGCCAGTGGACTTCTTC

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**FIGURE 13B**

ATCAATGGGCGGCCTACGCAGACGAGGTGGCTGTGGCTGAGGAGCTACTGGACCCCGAGGAGGCACAGCGGGGC  
AGCAGGTTCCGCCTGGACTACCTCCCCAACCCACAGTTCTCTACGGCCAAGAGGGAGAAGTGGATCAAGCACCAC  
CCCGGGGAGCCTCTCACCCTCGTTATCCACAAGGAGCAGGACAGCCTGGGGCTCCAGAGTCACGAGTACCGGGTC  
AAGATAGGCCAAGTAAGCTGCGACATCCAGATTGTCTCTGACAGAATCATCCACTGCTCGGTCAACGAGTCCCTG  
GGCGCGGCCGTGGGGCAGCTGCCCCATCACAATCCAGGTAGGGAACCTCAACCAGACCATCGCCACACTGCAGCTG  
GGGGGTAGCGAGACGGCCATCATCGTGTCCATCGTCATCTGCAGCGTCTGCTGCTGCTCTCCGTGGTGGCCCTG  
TTCGTCTTCTGTACCAAGAGCCGACGTGCTGAGCGTTACTGGCAGAAGACGCTGCTGCAGATGGAGGAGATGGAA  
TCTCAGATCCGAGAGGAAATCCGCAAAGGCTTCGCTGAGCTGCAGACAGACATGACAGATCTCACCAGGAGCTG  
AACCGCAGCCAGGGCATCCCCCTTCCTGGAGTATAAGCACTTCGTGACCCGCACCTTCTTCCCCAAGTGTTCTCTC  
CTTTATGAAGAGCGTTACGTGCTGCCCTCCCAGACCCTCAACTCCCAGGGCAGCTCCCAGGCACAGGAAACCCAC  
CCACTGCTGGGAGAGTGGAAAGATTCTTGAGAGCTGCCGGCCCAACATGGAAGAGGGGAATTAGCTTGTTCTCTCTCA  
CTACTCAACAACAAGCACTTCTCTATCGTCTTTGTCCACGCGCTGGAGCAGCAGAAAGGACTTTGCGGTGCGCGAC  
AGGTGCAGCCTGGCCTCGCTGCTGACCATCGCGCTGCACGGCAAGCTGGAGTACTACACCAGCATCATGAAGGAG  
CTGCTGGTGGACCTCATTGACGCCTCGGCCGCCAAGAACCCCAAGCTCATGCTGCGGCGCACAGAGTCTGTGGTG  
GAGAAGATGCTCACCAACTGGATGTCCATCTGCATGTACAGCTGTCTGCGGGAGACGGTGGGGGAGCCATTCTTC  
CTGCTGCTGTGTGCCATCAAGCAGCAAATCAACAAGGGCTCCATCGACGCCATCACAGGCAAGGCCCCGCTACACA  
CTCAATGAGGAGTGGCTGCTGCGGGAGAACATCGAGGCCAAGCCCCGGAACCTGAACGTGTCTTCCAGGGCTGT  
GGCATGGACTCGCTGAGCGTGC GGCCATGGACACCGACACGCTGACACAGGTCAAGGAGAAGATCCTGGAGGCC  
TTCTGCAAGAATGTGCCCTACTCCAGTGGCCGCGTGCAGAGGACGTGCACCTTGAGTGGTTGCGCTCCAGCACA  
CAGAGCTACATCCTTCGGGACCTGGACGACACCTCAGTGGTGGAAAGACGGCCGCAAGAAGCTTAACACGCTGGCC  
CATTACAAGATCCCTGAAGGTGCCTCCCTGGCCATGAGTCTCATAGACAAGAAGGACAACACACTGGGCCGAGTG  
AAAGACTTGACACAGAGAAGTATTTCCATTTGGTGTGCCTACGGACGAGCTGGCGGAGCCCCAAGAAGTCTCAC  
CGGCAGAGCCATCGCAAGAAGGTGCTCCCGGAAATCTACCTGACCCGCTGCTCTCCACCAAGGGCACGTTGCAG  
AAGTTTTCTGGATGACCTGTTCAAGGCCATTCTGAGTATCCGTGAAGACAAGCCCCACTGGCTGTCAAGTACTTT  
TTCGACTTCTGAGGAGCAGGCTGAGAAGAGGGGAATCTCCGACCCGACACCTACACATCTGGAAGACCAAC  
AGCCTTCTCTCCGTTCTGGGTGAACATCCTGAAGAACCCCCAGTTTGTCTTTGACATCGACAAGACAGACCAC  
ATCGACGCCTGCCTTTTACGTCATCGCGCAGGCCTTCATCGACGCCTGCTCCATCTCTGACCTGCAGCTGGGCAAG  
GATTCGCCAACCAACAAGCTCCTCTACGCCAAGGAGATTCTGAGTACCGGAAGATCGTGCAGCGCTACTACAAG  
CAGATCCAGGACATGACGCCGCTCAGCGAGCAAGAGATGAATGCCATCTGGCCGAGGAGTCGAGGAAATACCAG  
AATGAGTTCAACACCAATGTGGCCATGGCAGAGATTTATAAGTACGCCAAGAGGTATCGGCCGCAGATCATGGCC  
GCGCTGGAGGCCAACCCACGGCCCGGAGGACACAACCTGCAGCACAAAGTTTGAGCAGGTGGTGGCTTTGATGGAG  
GACAACATCTACGAGTGCTACAGTGAGGCCTGAGACACATGGAGAGTTGGTCAGGCTGCTGCTGGGAGAAATGGA  
CGCCCACTGGGCCTCAACTTGATCTTCTACCCCGTGCTGTGACTCAGACTGGGAAATACTGAGCAGAGACGGCT  
GGGGCGGGGCAGGAGGAGGGGCTGCTCTCTGAGACAGGGGCGCCCCGCTTGACCCCTGGGCACCTCCATCCC  
CTCCACCTGTCCCCAGATCAGTCTCTGGGATGGAGGCCAGAGAGCTGGTCAGGCTCCCCCATCTGCCAGCACG  
GCCTGCACTGTGCCCACCACTTGCTCCACAACTGTCAGTTGGTCTCTGCTGCCAAGAGCCCCGTGCATCCAGGCG  
GCCAAGCACAACTGGGGGAGAGGAGGCCGCCAGCCGGAGGCTGCAGCCCAGAACTCTACCTCATCCACACTG  
GTGCAGGGAGCCCTCCTTGAAGTACCTTTGATTGGTTTCTGCTTCAACTACCAAAATGTTATCTCCACTTCCCC  
CTACCCGTAGAGGATCCTGGCCACAGACAGTTTCAAGTAGTGTGAGATTTTTGTTGCTTGGGCGGCTGTTGGTA  
GAGTGGGCAGTGCCCGCGCCATGGGGTGTCTGTGGGCTTCTCCAGGAGCAGGGAGGGTGGAGGGGAGGGATGGG  
GGGCACAGGAGCTGGGAGCCCCGTCTCCAGGAAAAGGAGAGGGGTTAAGATGCACCGAGGCTGTAGCTGGGCTAC  
TTGATCTTGCTGAAAGTGTCTTCTAAAGATAGCACCCTTTTTTTTTTAAAGCTTTTATATATTAACCAACGTATC  
ATGC

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**FIGURE 14**

PGCAARLSRARAPGPGAAGAGRKRLADPGPPPASRRLRAPGSRPRLAPCTTRAAQPAHARMAPRAAGGAPLSARA  
AAASPPPFQTPPRCPVPLLLLLLLGAARAGALEIQRRFPSPTPTNNFALDGAAGTVYLAAVNRLYQLSGANLSLE  
AEAAGVPVPSPLCHAPQLPQASCEHPRRLTDNYNKILQLDPGQGLVVVCGSIYQGFQQLRRRGNISAVAVRFPP  
AAPPAEPVTVFSPMLNVAANHPNASTVGLVLPPAAGAGGSRLLVGATYTGYSFFFPRNRSLEDHRENTPEIAI  
RSLDTRGDLAKLFTFDLNPSSDNLKIKQGAKEQHKLGFVSAFLHPSDPPPGAQSYAYLALNSEARAGDKESQAR  
SLLARICLPHGAGGDAKKLTESIQLGLQCAGGAGRGDLYSRLVSVFPARERLFAVFERPQGSFAARAAPAALCA  
FRFADVRAAIRAARTACFVEPAPDVVAVLDSVVQGTGPACERKLNQLQPEQLDCGAHLQHPLSILQLKATPV  
FRAPGLTSVAVASVNNYTAVFLGTVNGRLLKINLNEISMVVSRRVTVAYGEPVHHVMQFDPADSVLYLMTSHQ  
MARVKVAACNVHSTCGDCVGAADAYCGWCALETRCTLQDCTNSSQQHFWTSASEGPSRCPAMTVLPSEIDVRQE  
YPGMILQISGSLPSLSGMEMACDYGNNI RTVARVPGPAFGHQIAYCNLLPRDQFPFPNPQDHVTVEMSVRVNGR  
NIVKANFTIYDCSRTAQVYPHTACTSCLSAQWPCFWCSQQHSCVSNQSRCEASPNPTSPQDCPRTLSPPLAPVPT  
GGSQNILVPLANTAFFQGAALCESFGLEEIFEAVWVNESVVRCDQVVLHTRKSQVFPLSLQLKGRPARFLDSPE  
PMTVMVYNCAMGSPDCSQCLGREDLGHLCMWSDGCRRLRGPLQPMAGTCPAPEIRAIEPLSGPLDGGTLLTIRGRN  
LGRRLSDVAHGVWIGGVACEPLPDRTVSEIIVCVTGPAPGPLSGVTVNASKEGKSRRDRFSYVLPVLVHSLEPTM  
GPKAGGTRITIHGNDLHVGSSELQVLVNDTDPCTELMRTDTSIACMTPEGALPAPVPVCVRFERRGCVHGNLTFWY  
MQNPVITAISPRRSPVSGGRTITVAGERFHMVQNVSMVHHIGREPTLCKVLNSTLITCPSGALSNASAPVDF  
INGRAYADEVAVAEELLDPEEAQRGSRFRDLPLNPQFSTAKREKWKHHHPGEPLTLVIHKEQDSLGLQSHEYRV  
KIGQVSCDIQIVSDRIIHCSVNESLGAAVGQLPITIQVGNFNQTIATLQLGGSETAIIVSIVICSVLLLLSVVAL  
FVFCTKSRAERYWQKTLQMEEMESQIREEIRKGF AELQDMDTLTKELNRSQGIPFLEYKHVTRTFFPKCSS  
LYEERYVLPSQTLNSQGSSQAQETHPLLGEWKIPESCRPNMEEGISLFSLLNNKHFLIVFVHALEQQKDFAVRD  
RCSLASLLTIALHGKLEYYSIMKELLVDLIDASAANKPKMLLRTE SVVEKMLTNWMSICMYSCLRETVGEPFF  
LLLCAIKQQINKGSIDAITGKARYTLNEEWLLRENIEAKPRNLNVSFQCGMDSL SVRAMD TDTLTQVKEKILEA  
FCKNVPYSQWPRAEDVDLEWFASSTQSYILRDLDDTSVVEDGRKKLNTLAHYKIEGASLAMS LIDKKDNTLGRV  
KDLDTKEYFHLVLP TDELAEPKKSHRQSHRKKVLPEIYLTRLLSTKGT LQKFLDDL FKA ILSIREDKPPLAVKYF  
FDFLEEQA EKRGISDPDTLHIWKTNSLPLRFVWNILKNPQVFVDIDKTDHIDACLSVIAQA FIDACSISDLQLGK  
DSPTNKLLYAKEIPEYRKIVQRYKQIQDMTPLSEQEMNAHLAEESRKYQNEFNTNVAMAEIYKYAKRYRPQIMA  
ALEANPTARRTQLQHKFEQVVALMEDNIYECYSEA

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**FIGURE 15A**

CCCTTTTCTCCCGTTTTGAAGAGACAATGCTACTTCAGTTTGGAGCACAAACATATGATCAGCACATGGAAAT  
GTGGTAATTCGGATGCATTCGTGATTGCAACAGATTGAAGAAATTAGACCAGACAAAGAGTGTTTTAGAGGAGA  
GAGGAGGAGGAGGAGGCTGAGAGAGGGAGGGCGACGGGGTGAGAAAGGGGAGGCCGCTCTGAGCGGGACGCCG  
GGACTCCCGCCGCTGCTAAATATATCCGTAGAAATGAGAGGGACCGGATCTCAGCCTTGAAAAGATCTTTTGAAG  
TCGAGGAGGTCGAGACACCAACTCCACCCACCCCGAGGGTCCAGACTCCCCTACTCCGAGCCACTGTGGCCA  
GCTCCACCCAGAAATTCCAGGACCTGGGCGTGAAGAACTCAGAACCTCGGCCCGCCATGTGGACTCCCTAAGCC  
AACGCTCCCCCAAGGCGTCCCTGCGGAGGGTGGAGCTCTCGGGCCCCAAGGCGGCCGAGCCGGTGTCCCGGCGCA  
CTGAGCTGTCCATTGACATCTCGTCCAAGCAGGTGGAGAACGCCGGGGCCATCGGCCCGTCCCGGTTCCGGGCTCA  
AGAGGGCCGAGGTGTTGGGCCACAAGACGCCAGAACCGGCCCTCGGAGGACGGAGATCACCATCGTCAAACCCC  
AGGAGTCAGCCCACCGGAGGATGGAGCCCCCTGCCTCCAAGGTCCCCGAGGTGCCCACTGCCCTGCCACCGACG  
CAGCCCCCAAGAGGGTGGAGATCCAGATGCCCAAGCCTGCTGAGGCGCCACCGCCCCCAGCCCAGCCCAGACCT  
TGGAGAATTGAGAGCCTGCCCTGTGTCTCAGCTGCAGAGCAGGCTGGAGCCCCAAGCCCCAGCCCCCTGTGGCTG  
AGGCTACACCCCGGAGCCAGGAGGCCACTGAGGCGGCTCCCAGCTGCGTTGGCGACATGGCCGACACCCCCAGAG  
ATGCCGGGCTCAAGCAGGCGCCTGCATCACGGAACGAGAAGGCCCGGTGGACTTCGGCTACGTGGGGATTGACT  
CCATCCTGGAGCAGATGCGCCGGAAGGCCATGAAGCAGGGCTTCGAGTTCAACATCATGGTGGTCCGGCAGAGCG  
GCTTGGGTAAATCCACCTTAATCAACACCCTCTTCAAATCCAAATCAGCCGGAAGTCGGTGCAGCCCACCTCAG  
AGGAGCGCATCCCCAAGACCATCGAGATCAAGTCCATCACGCACGATATTGAGGAGAAAGGCGTCCGGATGAAGC  
TGACAGTGATTGACACACCAGGGTTCGGGGACCACATCAACAACGAGAACTGCTGGCAGCCCATCATGAAGTTCA  
TCAATGACCAGTACGAGAAATACCTGCAGGAGGAGGTCAACATCAACCGCAAGAAGCGCATCCCGGACACCCGCG  
TCCACTGCTGCCTCTACTTCATCCCCGCCACCGGCCACTCCCTCAGGCCCTGGACATCGAGTTTATGAAACGCC  
TGAGCAAGGTGGTCAACATCGTCCCTGTCATCGCCAAGGCGGACACACTCACCTGGAGGAGAGGGTCCACTTCA  
AACAGCGGATCACCGCAGACCTGCTGTCCAACGGCATCGACGTGTACCCCCAGAAGGAATTTGATGAGGACTCGG  
AGGACCGGCTGGTGAACGAGAAGTTCGGGAGATGATCCATTTGCTGTGGTGGGCAGTGACCACGAGTACCAGG  
TCAACGGCAAGAGGATCCTTGGGAGGAAGACCAAGTGGGGTACCATCGAAGTTGAAAACACCACACACTGTGAGT  
TTGCCTACCTGCGGGACCTTCTCATCAGGACGCACATGCAGAACATCAAGGACATCACCAGCAGCATCCACTTCG  
AGGCGTACCGTGTGAAGCGCCTCAACGAGGGCAGCAGCGCCATGGCCAACGGCGTGGAGGAGAAGGAGCCAGAAG  
CCCCGGAGATGTAGACGCCCCCTGCCACCCCCGGGATCCTGCCCCCAAGTCATTTCCGTCCCCCCCCCAGGCC  
TCCCACCACCCCATTTTATTTTATATGATTTTCTCCATTTGTTCATCGTTCCCCACCCCTTCGACATGCTGCCAGG  
AAACAAGGGAAGGGGCTCCCTCCGAGTGAGTCAGTGATGAGGCCGCGGCTCCCCGAGGTTGTGGGGAGGCTGC  
ACTGGAGCCACAGGCAGGGGTGAGAGCACCCTGAATTGACATGACCTCTGTCCCCAGGCCTGGCTCCCCGAG  
GGCTCAGAAGAGCAGCTTCGGTGTGCAGATCATCCGTCGTGTGGGGTTCTCAGTGCCGAGCTTGGGGTGGGGG  
CAGGCCTCGCACTTGCAGAGGAGCCAGTGGGCTGCACGCTCCCCCTCCATCCCCATCGGCCCTGTCCCCTGGAGT  
GTGTGAGAGCCAGGGGAGAATGCAGCCACCAGGAGCACCTGGACCCCCCTGCCCGCCACATGGTGTGGCCATCA  
CTCAGCCCCCTACCCCTGCCCTGCTCCTAAGGGTAGAAAATCCAGGGTCCCCTGCCACCGACTGCCAGCCACTC  
CAAGCCCCCTGGCAGCTGCCCTCCTGGAGCAGAAAGTGCTTTATCTCAGCCATCCGCAGACTGCTGGCCAGAT  
GCGGGGACAGGCTGGAATGAGGGAGGCGTCTTCATCTCCCTGCCATCCCCCTCTACGCCACCCCCGCCCCACC  
GGGCTGCAGGTGCTGCTGATGCGCTGGGATCTGATTGAGGATAAAAAGGAAGGAGAGATGACCCCTACCCCTCA  
TCCCCCAGTTTGAAGGCTTAAGCAAGTGAGTCTGGTGGAGGAGCTGAGGGAGGGAGCCATGGAAGGTGCCAG  
AAGGAAGGTTGGCGGGGGCACGTGTGGGCGTGGCTTGGGCTGGTCAGAGTGGCGTGAGCTGCCCGGCGCCTGCC  
CTGCCCAAGTGACCAGGGAAGTGTGTGTGTGTCCATGTGTATGCGTGTCCGTCTGTCTGTCTAGTGTCTGGGTTT  
GGCCCAAGACTGGGCTGTAGTTACATTAATGCCAGCCAGCCACCCCTGCCACTCACCCCTCCTGGCCAGGCCT  
TGCTGACTCTCTGAGCTGGGGAGGTGGGAGGCCAGGCGAGCCTGACTCTGTTGATCTACCCGTGCCCTGGGCCCT  
CCCCTCAGAGCCCATGGTAACGAACCCCTAGAAAAGGAGAGAACGGGCGTCAGGGGTGCACAGTCCACAGCTGAAG  
AGCAAGGTTTTCTGGCAGCACGGCCCCGGCCCCCTCACCTCTGTCCCCACGAGGGGACCCATGGGGGCTGTCTTG  
CAGGGCACAGATGACCAAAGTCCCTTCCCTGCTTCCCTGTTACCTGTCTTGGCTCCTGGGGAGAAAGAGGGGCTGAT  
GAGACTCCACTCAGGTGCACACATCACCAGGTGCATCTGCAGGCACCGGGCTGGCTGCTTGCAGCCAGGAGAAGG  
TCAGCGAGAAGGAGTGTATGAGTGTGAGTGTGTGTGCATGGAAGTTGGGGCACTGGGCGTCTGACTCCCTCCCCA  
CCCAAGAGAGGAAGGACCCCTCACCACCCCACTGGCGAGACAGTTTACTTTGCCGACTTGCCATGTTTTTGCCA

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**FIGURE 15B**

AAACCAAGATTTTGAAGGAAATGAGTGGCCAGCGCCAGGGCCCAGGCCATGTGGCCTGCCCAGCCTCAATGTCAC  
TTGGCGGCGGGGTGGGGTGGGGTGGGCAGCAGCATCCCAGCCTTGAGATGCTTCACTTTCCTTCTGTGAACCA  
GACTTTGAAAAATTGTTTCGTTTCATCAGGCTCTGTTTCCTCAATGGCCTTTTGCTACGTGCCTCCCGAGAAATTTG  
TCTTTTGTATAAATGACAAAGTGTTGAAAATGTATTTCTGAAATAAATGTTTCAAATGCAGAAACCCAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 16**

MERDRISALKRSFEVEEVETPNSTPPRRVQTPLLRA TVASSTQKFQDLGVKNSEPSARHVDSLSQRSPKASLRRV  
ELSGPKAAEPVSRTELSIDISSKQVENAGAIGPSRFG LKRAEVLGHKTPEPAPRRTEITIVKPQESAHRMEPP  
ASKVPEVPTAPATDAAPKRVEIQMPKPAEAPTAPSPAQ TLENSEPA PVSQ LQSRLEPKPQPPVAEATPRSQEATE  
AAPSCVGDMA DT PRDAGLKQAPASRNEKAPVDFGYVGIDS ILEQMRRKAMKQGFEFNIMVVGQSGLGKSTLINTL  
FKSKISRKSVQPTSEERIPKTIEIKSITHDIEEKGV RMKLTVIDTPGFGDHINNENCWQPI MKFINDQY EKYLQE  
EVNINRKKRIPDTRVHCCLYFIPATGHSLRPLDIEFMK RLSKVVNIVPVI AKADTLTLEERVHFKQRITADLLSN  
GIDVYPQKEFDEDS EDRLVNEKFREMIPFAVVGSDHEYQVNGKRILGRKTKWGTIEVENTHCEFAYLRD LLI RT  
HMQNIKDITSSIHF EAYRVKRLNEGSSAMANGVEEKEPEA PEM



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**FIGURE 17**

CCGCTTCCCGTCTTGTACACCCCTAACTCCTGAGGCTCCTCCGAATCACGCGAGTGGAAGCGGAGAAGCTCAAG  
TGGCCGCC**ATGT**CAGAGGCTTATTTCCGAGTGGAGTCGGGTGCGCTGGGGCCTGAGGAGAACTTTCTTTCTTTGG  
ACGACATCCTGATGTCCCACGAGAAGCTGCCGGTGCACACGGAGACCGCCATGCCTCGCCTTGGCGCTTTCTTCC  
TGGAGCGGAGCGCAGGCGCCGAGACTGACAACGCGGTCCACAGGGTTCCAAGCTTGAACCTACCCTTGTGGCTGG  
CAAAAGGACTTTTTTGACAACAAGCGACGGATCCTTTCTGTGGAACCCCCAAGATCTACCAAGAGGGTTGGAGGA  
CTGTGTTTCAGTGCAGATCCCAATGTGGTGGACCTCCACAAAATGGGGCCCCATTTCTACGGGTTTGGCTCCCAGC  
TCCTGCATTTTACAGTCCCGAGAATGCAGACATTTCCAGTCTCTGCTGCAGACTTTTATCGGACGTTTTTCGCC  
GCATCATGGACTCCTCACAGAATGCTTACAACGAAGACACTTCAGCCCTGGTAGCCAGGCTAGACGAGATGGAGA  
GGGGCTTATTTCAAACAGGGCAGAAAGGACTGAATGACTTTTCAGTGTGGGAGAAGGGCAGGCTTCTCAGATCA  
CAGCTTCCAACCTCGTTTCAAGATTACAAGAAGAGAAAATTCAGTGATATGGAAGAC**TGA**AAGCCGGAAGAACA  
GAATGGCTCCTCACAGACGTATCCCTCCGTGTGCTTGTATAGGAGCTGGTTGACCTTGTACAGAACCAGAATCC  
TGTCCCATTTTCATGGCTTATTTCCGTGTGGCCATAGAGAATTATAGGGAACCTGGACATGCTGGAGGATGTGGGTGT  
CCCTGGCTCTGTGAGTCTTCCAGGACCGTCCACCCCTGCTGACCCACAGCCAGGCCCTTTAACCCAAGAACCCA  
TGGCCAAGGAGAAATCAAAGTCCTTCTAAATAAGAATCACTGCCATATAATATATCACAGTAGAGTTGCAACTG  
AGATTCTTGTGTCTGGGAGTTTGGACAGCTTCAGATGTACAGTTTCACTAGCCACAAAGCACAGGTACAAACTG  
GGTCATCGCCTGTTTCAAAAATGCTCTCTTGATCTTATTTGCCTCATCTTCTCATGGTTGTACAGAGGATAGCA  
CCCCACCATGCCAGCCTGACTTGGAGATATCTCCTGCTGCCTGCCTGCAGGGAGTTACCCAGTTTCCAAAAACA  
GTCGCCCAGATAAAGGAGGAAAAGGGAAAGGCAGACGAATGGCATGGCTTTTACTAAAGAAAAGATGTTGGCCTC  
ATACTCTATACTCAGGGCTTAATGAACTGGAATCTGCATAACTCAGCAGTCAACCCAGAAGGGAAATGGTTAAAC  
TGAGCTTGTTATTGCCTCGGAGAGCCTAAGAGCACCCGCACACTTAATTCTACTCCCTGTCTAGAAAAGCTGTCA  
GGGAGTCGTTTGAATTGCAATGTAGTTATTAAGGGCTGTTAACCAGCCTGCATTACATCTGGAAGTCAGGACTT  
GGGTGCTGACTATGAAGGGCCCTGTTTTCAAATCTAACATTGCAAGTGTAATGGGCAAGAAGCCTCCGTTGTG  
CTTTTTTTTTCTCTTTCAGTAACTTTTGCAACATTATTGCATAGAAGATCCCTGACCATTTACTAGGAACCTGGT  
TAAGCAAGCACTAATCTCTTTTCCCTGGAGATCAAGGATGCAACCTCAGGTTGAGAAAGAAACAGGGTTCCCTGGG  
CCCATTAGACTGTTTGCAGGGCATCACTGCTTCCCCCTGACACCTCACAACCTAGCAAAAATTGTCTTTGTCTTTG  
GAAATTATAGAGGGATTGGGTATCCAGATTGTGCAGATGCAAACTTAGGCTGTCTTGATGCAAACTTAGAACCA  
CAGAAATGCTTTTAAATGCCTGTTTTAAGATGGAATTGTTGTTTTTATAATTTGATTTTAGTGCTAAATAAATG  
ATTGGCTTTGTACATGAATAATGTTCTGTACAAGTGCTCTTTCACTAGTACTACAGATAATCAAAGCTATCAGAAT  
TGTGTCTTTGATCATATTTGACGGTAATACAAAATAAATCCATGTTTTAGCAAAAAAAAAAAAAAAAAAAAAA  
A

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**FIGURE 18**

MSEAYFRVESGALGPEENFLSLDDILMSHEKLPVRTETAMPRLGAFFLERSAGAETDNAVPOGSKLELPLWLAKG  
LFDNKRRILSVELPKIYQEGWRTVFSADPNVVDLHKMGPHFYGFSGQLLHFDSPENADISQSLLQTFIGRFRRIM  
DSSQNAYNEDTSALVARLDEMERGLFQTGQKGLNDFQCWEKGQASQITASNLVQNYKKRKFTDMED

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**FIGURE 19**

GTTTACGTCTCGCTCCGGGGCGGAAAGTGGGTACAGGCCGGGCTGGCGGAGCGCGCAGCGGGGGCTGCAGATTCT  
TTCCACCATGGCCAGACGCCCCCGGAACAGCAGGGCCTGGCACTTCGTCTGAGTGCAGCCCGCCGAGACGCAGA  
TGCCCGGGCCGTGGCTCTAGCGAGGCCTCCTTCTGTAGCAGCCTGCACTCGGCCCCACCGGGGCAGGGACTGCCGC  
TGCGGAGAGGAAGACGAGTGTGAGCGTGGGGCCAGCCCCTGTGCGGACTGCACTGCGGGCGGGCCTGGGGGTGG  
GCAGGGCAGAGCCCCATGGAGCTCTCAGGGCTGCCCCAGCCTGGGCCTCTCTTGCAAGATTTGCACTGGGTCTGGG  
ATGACTTAAATAAGTCATCAGCCACCCTGCTGAGCTGTGACAACCGTAAGGTCAGCTTCCACATGGAGTACAGCT  
GCGGCACAGCGGCCATCCGGGGCACCAAGGAGCTGGGGGAGGGCCAGCACTTCTGGGAGATCAAGATGACCTCTC  
CCGTCTACGGCACACTCACCTTTTTCAAGAACAGGAAGTGTATAGGTGTGGCAGCCACCAAGCTGCAGAACAAGA  
GATTCTACCCGATGGTGTGCTCCACGGCGGGCCCGAGCAGCATGAAGGTCACCCGCTCCTGTGCCAGCGCCACTT  
CCCTCCAGTACCTGTGCTGCCACCGCCTGCGCCAGCTGCGGCCAGACTCGGGAGACACGCTGGAGGGTCTGCCGC  
TGCCGCCGGGCCTCAAGCAGGTGCTACACAACAAGCTGGGCTGGGTCTGAGCATGAGTTGCAGCCGCCGCAAGG  
CTCCAGTGTCCGATCCCCAGGCAGCGACCTCCGCCCCACCCAGCAGTCGCGAGCCTCGGCCCTGCCAGAGGAAGC  
GCTGCCGCCGGACCTTGACTGACTTCCCAGTGGAACTGCCTTCTTGGGCTGGGGCAGCCCCCTTTCCTCTGTCCCTT  
CTTTCTCTGTCCCTTCCTTCCAGCCACACTCCAGGGCGGAGTTGGATGAGGCCCCGTCCGGAGGGAGCCATCTCTT  
GCTCCCCGAGGCTGGGACAGTCCCTTCTGTGGGGGCTCTAGGGCCCCCTCTGCTGCTGTGCTGGGTGGGGAAGCGGC  
TGCCCTGAGCCCCAGGTCTTGTGGGAGGCTGCGAGGACGAGAGCCTGGCTGGAGCCCGCTTGTCTGTTCCCTAGAT  
GGTGGGCATCGGGACGTGCGATGTGGACCTGGACAAATACCGCCACACGTTCTGCAGCCTGCTGGGCAGGGATGA  
GGACAGCTGGGGCCTCTCCTACACGGGTGCGTGAGGCCAGGGTGGGGCGGGGCCGAGCCTGGAGCTCCCGGGCT  
CACTGCGACCCTGGCTGCCCCAGGCCTCCTCCACCACAAGGGCGACAAGACCAGCTTCTCGTCGCGGTTCCGGCC  
AGGGCTCCATCATTGGCGTGACCTGGACACCTGGCACGGCACACTCACCTTTTTCTTAACCTTGCTCTGCATGCT  
GTCAGCGGCTGCCCCGCCGTCATAGACTTAAAGGACTGCAATAAATGTAGAGTTGATGTCTAACACCC

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**FIGURE 20**

MEYSCGTAAIRGTELGEQHFWEIKMTSPVYGTLTFFKNRKCIGVAATKLQNKRFYPMVCSTAARSSMKVTRSC  
ASATSLQYLCCHRLRQLRPDSGDTLEGLPLPPGLKQVLHNKLGWVLSMSCSRRKAPVSDPQAATSAHPSSREPRP  
CQRKRCRRT

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**FIGURE 21**

AGAAATCAACTGCTTAGCCGGGTGTTAGGAGGATCTGATGAGACTAGGATGTGAGTTGAAACTGCTGTGCCAGG  
CACACCTGTGTGGGTCTCACTTGTGCCAGGCATACCTGCGTGGGTCTCACCTGTGTAGGTCTCACCTGTGCCAGG  
TGTACCTGTGTGGGTCTTACCTGTGCAGGTCTCCTGATGCAGGTCTCACCTGTGCCGAGTGTACCTACCTGTGCG  
GGTCTCACCTGTGTGAGCGTACGTGTAGGGGTCTCACCTGTGAACGTCTCACCTGTGCCAGGTGTATACCTGTG  
TGGCTCTCACTTGTGTGGGTCTGGTATGTGACAAAGGCCTGGGAATTGGCAGCTGTCACTGTGCCAGGAGCAGACC  
CTGAGCCAAGTTCCTGTGCCTTAGGCTCATTTCATGCCCTCAGCTCTGGGAGGCCAATCCCTTTACTGCCACAT  
TTTATAAATGGAAGACTGAGGTTAAGCAGTGGGCCCAGGGCCATAGAACAGCTGAGCTGTGGAGCTGGACATCGA  
CCTTGGGCAGGTGCTGCCAGGGGCCTGAGCCCAGGCCCTCCACTCCCGCATCCTCTGATGACCCATCCTGGGTGA  
GTGGAGGCATCTGCCCCGCGCAGTCAGGCCCAGTGGTGATGGCCCCCATGCCCACAGGACAGAAGCTGCTGGACT  
CACTGGCAGAGACCTGGGACTTCTTCTTCACTGACGTGCTGCCCCATGCTGCAGGCCATCTTCTACCCGGTGCAGG  
GCAAGGAGCCATCGGTGCGCCAGCTGGCCCTGCTGCACTTCCGGAATGCCATCACCCCTCAGTGTGAAGCTAGAGG  
ATGCGCTGGCCCCGGGCCCCATGCCCCGCTGCCCCCTGCCATCGTGCAGATGCTGCTGGTGCTGCAGGGGGTACATG  
AGTCCAGGGGCGTGACTGAGGACTACCTGCGCCTGGAGACGCTGGTCCAGAAGGTGGTGTCGCCATACCTGGGCA  
CCTACGGCCTCCACTCCAGCGAGGGGCCCTTACCCATTCTGTCATCCTGGAAAAGCGCCTCCTCCGCCGCTCCC  
GCTCGGGGGACGTGCTGGCCAAGAACCCTGTGGTGCGCTCCAAGAGCTACAACACGCCTCTGCTGAACCCCGTGC  
AGGAGCACGAGGCGGAGGGCGCGCGGCCGGCGGTACCAGCATCCGCTGGCACTCTGTGTGCGGAGATGACGTCTT  
GCCCCGAGCCTCAGGGCTTCTCCGACCCGCCCGGCCAGGGCCCCACCGGGACCTTCAGGTCTCCTCCCGGCGCCCC  
ACTCAGGGCCCTGCCCCAGCAGACTGTACCCACGACCCAGCCCCCTGAGCAGGGCTTGGATCCACCCGCAGCT  
CCCTGCCCCGCTCCAGCCCGGAGAACCCTGGTGGACCAGATCCTGGAGTCCGTGGACTCGGATTCTGAAGGGATTT  
TCATTGACTTTGGCCGGGGCCGGGGCTCTGGCATGTCCGACTTGGAGGGCTCTGGGGGCCGGCAGAGTGTCTGTG  
**G**AGGCCTCACAGCTGGCCTTGAGTTTTTACTGACACGTCCCTGTGTGCGGGGGTGTCATGTGGCGTGTGTGTGA  
GTGAGACTTTTTTACTGCGTCCCGTCCCGCCAGCCCTGTGCGCCTCGTCACTGGCCTTGGTCACTTTGTATTTCT  
GTCTTGGTTGAAAATACCATCAGCCTTCCTTGCTCGGCCAGGTCTGTTTCAGGCATCTGAGTCAGCGTTTACCC  
AGGGGCCGGGCCAGAGACGGGGGCCGGCCGCTCGCTCCACGCTCCTCCTGCCCCAGCCCTCTGGTGTCCACACC  
TGCCACAGAGAATGTAAACCCAGTGGGCTCTGCCACGCGGGCCCCAAAGTGACCAGACTCCAGCACACCTGT  
CTCCTCCTGCCTGGGGTGGCCATGGGGATGGAAGGGGGTGAATAAAACCTGTCAACCTGAAAAAAAAAAAAAA  
AAAAAA

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**FIGURE 22**

MAPMPTGQKLLDSLAE TW DFF FSDVLPMLQAIFYPVQGKEPSVRQLALLHFRNAITLSVKLEDALARAHARVPPA  
IVQMLLV LQGVHESRGVTEDYLRLET LVQKVVS PYLGT YGLHSSEGPFTHSCILEKRLLR SRSGDVLAKNPVVR  
SKSYNTPLLNPVQEHEAEGAAAGGTSIRWHSVSEMTSCPEPQGFSDPPGQGPTGTFRSSPAPHSGPCPSRLYPTT  
QPPEQGLDPTRSSLPRSSPENLVDQILESVDSDSEGIFIDFGRGRGSGMSDLEGS GGRQSVV

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**FIGURE 23**

GTTGCCGCTGCGCACCTGGCTCAGGTGAGCTGCCCCGCCCCCGCCGGCGCGAGCCCCAGGTCTTGGCAGCAGCC  
 CCTGACCTGTCCAGGTGCCCTGTCCAGCTGACTGCAAGGACAGAGAGGAGTCTTGCCAGCTCTTGGATCAGTCT  
 GCTGGCCGAGGAGCCCCGGTGGAGCCAGGGGTGACCCTGGAGCCCAGCCTGCCCCGAGGAGGCCCGGCTCAGAGC  
**CATG**CCAGGTGTCTGTGATAGGGCCCCCTGACTTCCTCTCCCCGTCTGAAGACCAGGTGCTGAGGCCTGCCTTGGG  
 CAGCTCAGTGGCTCTGAACTGCACGGCTTGGGTAGTCTCTGGGCCCCACTGCTCCCTGCCTTCAGTCCAGTGGCT  
 GAAAGACGGGCTTCCATTGGGAATTGGGGGCCACTACAGCCTCCACGAGTACTCCTGGGTCAAGGCCAACCTGTC  
 AGAGGTGCTTGTGTCCAGTGTCTGGGGGTCAACGTGACCAGCACTGAAGTCTATGGGGCCTTCACCTGCTCCAT  
 CCAGAACATCAGCTTCTCCTCCTTCACTCTTCAGAGAGCTGGCCCTACAAGCCACGTGGCTGCGGTGCTGGCCTC  
 CCTCCTGGTCTGCTGGCCCTGCTGCTGGCCGCCCTGCTCTATGTCAAGTGCCGTCTCAACGTGCTGCTCTGGTA  
 CCAGGACGCGTATGGGGAGGTGGAGATAAACGACGGGAAGCTCTACGACGCCTACGTCTCCTACAGCGACTGCCC  
 CGAGGACCGCAAGTTCGTGAACTTCATCCTAAAGCCGCAGCTGGAGCGGCGTCGGGGCTACAAGCTCTTCCTGGA  
 CGACCGCGACCTCCTGCCGCGCGCTGAGCCCTCCGCCGACCTCTTGGTGAACCTGAGCCGCTGCCGACGCCTCAT  
 CGTGGTGCTTTTCGGACGCCTTCCTGAGCCGGGCCTGGTGCAGCCACAGCTTCCGGGAGGGCCTGTGCCGGCTGCT  
 GGAGCTCACCCGCAGACCCATCTTCATCACCTTCGAGGGCCAGAGGCGCGACCCCGCGCACCCGGCGCTCCGCCT  
 GCTGCGCCAGCACCGCCACCTGGTGACCTTGCTGCTCTGGAGGCCCGGCTCCGTGACTCCTTCCTCCGATTTTGT  
 GAAAGAAGTGCAGCTGGCGCTGCCGCGGAAGGTGCGGTACAGGCCGGTGGAAGGAGACCCCCAGACGCAGCTGCA  
 GGACGACAAGGACCCCATGCTGATTCTTCGAGGCCGAGTCCCTGAGGGCCGGGCCCTGGACTCAGAGGTGGACCC  
 GGACCTGAGGGCGACCTGGGTGTCCGGGGGCCTGTTTTTGGAGAGCCATCAGCTCCACCGCACACCACTGGGGT  
 CTCGCTGGGAGAGAGCCGGAGCAGCGAAGTGGACGTCTCGGATCTCGGCTCGCGAACTACAGTGCCCGCACAGA  
 CTTCTACTGCCTGGTGTCCAAGGATGATATG**TAG**TCCCACCCAGAGTGCAGGATCATAGGGACAGCGGGGGCC  
 AGGGCAGCGGCGTGCCTCCTCTGCTCAACAGGACCACAACCCCTGCCAGCAGCCCTGGGACCCTGCCAGCAGCCC  
 TGGGAAAAGGCTGTGGCCTCAGGGCGCCTCCAGTGCCAGAAAATAAAGTCCTTTTGGATTCTGAAAAAAAAAA  
 AA

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**FIGURE 24**

MPGVCDRAPDFLSPSEDQVLRPALGSSVALNCTAWVVS GPHCSLPSVQWLKDGLPLGIGGHYSLHEY SWKANLS  
EVLVSSVLGVNVTSTEYGAFTCSIQNISFSSFTLQ RAGPTSHVA AVLASLLVLLALLLAALLYVKCRLNVLLWY  
QDAYGEVEINDGKLYDAYVSYSDCPEDRK FVNFI LKPQLERRRGYKFLDDRDL LPRAEPSADLLVNL SRCRLI  
VVLSDAFLSRAWCSHSFREGLCRLLELTRRPIF ITFEGQRRDPAHPALRLLRQHRHLVTLLLWRPGSVTPSSDFW  
KEVQLALPRKVRYRPVEGDPQTQLQDDKDPMLI LRGRVPEGRALDSEVDPDPEGDLGVRGPVFGEPSAPPHTSGV  
SLGESRSSEVDVSDLGSRNYSARTDFYCLVSKDDM



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**FIGURE 25**

GGCACGAGGGGAGCGCTTGTTTGCTGCCTCGTACTCCTCCATTTATCCGCCATGAATAAGTGCCAGCCGAGCTGCA  
GCAGCCCGTCTCGTGGGCGCCGAGCCTCCCGGGGCCCTACGGCCGCCGCCACCAGGATAGCTGGAATGGCCTT  
AGTCATGAGGCTTTTAGACTTGTTTCAAGGCGGGATTATGCATCAGAAGCAATCAAGGGAGCAGTTGTTGGTATT  
GATTTGGGTACTACCAACTCCTGCGTGGCAGTTATGGAAGGTAAACGAGCAAAGGTGCTGGAGAATGCCGAAGGT  
GCCAGAACCACCCCTTCAGTTGTGGCCTTTACAGCAGATGGTGAGCGACTTGTTGGAATGCCGGCCAAGCGACAG  
GCTGTCACCAACCCAAACAATACATTTTATGCTACCAAGCGTCTCATTGGCCGGCGATATGATGATCCTGAAGTA  
CAGAAAGACATTAAAAATGTTCCCTTTAAAATTGTCCGTGCCTCCAATGGTGATGCCTGGGTTGAGGCTCATGGG  
AAATTGTATTCTCCGAGTCAGATTGGAGCATTGTGTGATGAAGATGAAAGAGACTGCAGAAAATTACTTGGGG  
CGCACAGCAAAAAATGCTGTGATCACAGTCCCAGCTTATTTCAATGACTCGCAGAGACAGGCCACTAAAGATGCT  
GGCCAGATATCTGGACTGAATGTGCTTCGGGTGATTAATGAGCCCACAGCTGCTGCTCTTGCCATGGTCTAGAC  
AAATCAGAAGACAAAGTCATTGCTGTATATGATTTAGGTGGTGAACTTTTGATATTTCTATCCTGGAAATTCAG  
AAAGGAGTATTTGAGGTGAAATCCACAAATGGGGATACCTTCTTAGGTGGGGAAGACTTTGACCAGGCCTTGCTA  
CGGCACATTGTGAAGGAGTTCAGAGAGAGACAGGGGTTGATTTGACTAAAGACAACATGGCACTTCAGAGGGTA  
CGGGAAGCTGCTGAAAAGGCTAAGTGTGAACCTCTCCTCATCTGTGCAGACTGACATCAATTTGCCCTATCTTACA  
ATGGATTCTTCTGGACCCAAGCATTGAATATGAAGTTGACCCGTGCTCAATTTGAAGGGATTGTCACTGATCTA  
ATCAGAAGGACTATCGCTCCATGCCAAAAAGCTATGCAAGATGCAGAAGTCAGCAAGAGTGACATAGGAGAAGTG  
ATTCTTGTTGGGTGGCATGACTAGGATGCCCAAGGTTGAGCAGACTGTACAGGATCTTTTGGCAGAGCCCCAAGT  
AAAGCTGTCAATCCTGATGAGGCTGTGGCCATTGGAGCTGCCATTCAGGGAGGTGTGTTGGCCGGCGATGTCACG  
GATGTGCTGCTCCTTGATGTCACTCCCCTGTCTCTGGGTATTGAACTCTAGGAGGTGTCTTTACCAAACCTTATT  
AATAGGAATACCACTATTCCAACCAAGAAGAGCCAGGTATTCTCTACTGCCGCTGATGGTCAAACGCAAGTGAA  
ATTAAAGTGTGTGAGGGTGAAAGAGAGATGGCTGGAGACAACAACTCCTTGACAGTTTACTTTGATTGGAATT  
CCACCAGCCCCCTCGTGAGTTTCTCAGATTGAAGTTACATTTGACATTGATGCCAATGGGATAGTACATGTTTCT  
GCTAAAGATAAAGGCACAGGACGTGAGCAGCAGATTGTAATCCAGTCTTCTGGTGGAATTAAGCAAAGATGATATT  
GAAAATATGGTTAAAAATGCAGAGAAATATGCTGAAGAAGACCGGCGAAAGAAGGAACGAGTTGAAGCAGTTAAT  
ATGGCTGAAGGAATCATTACGACACAGAAACCAAGATGGAAGAATTCAAGGACCAATTACCTGCTGATGAGTGC  
AACAAGCTGAAAGAAGAGATTTCCAAAATGAGGGAGCTCCTGGCTAGAAAAGACAGCGAAAACAGGAGAAAATATT  
AGACAGGCAGCATCCTCTCTTCAGCAGGCATCATTGAAGCTGTTTCGAAATGGCATACAAAAAGATGGCATCTGAG  
CGAGAAGGCTCTGGAAGTTCTGGCACTGGGGAACAAAAGGAAGATCAAAAGGAGGAAAAACAGTAAATAATAGCAG  
AAATTTTGAAGCCAGAAGGACAACATATGAAGCTTAGGAGTGAAGAGACTTCCTGAGCAGAAATGGGCGAACTTC  
AGTCTTTTTACTGTGTTTTTGCAGTATTCTATATATAATTTCTTAATTTGTAAATTTAGTGACCATTAGCTAGT  
GATCATTTAATGGACAGTGATTCTAACAGTATAAAGTTACAAATATTCTATGTCCCTAGCCTGTCAATTTTTCAGC  
TGCATGTAAAAGGAGGTAGGATGAATTGATCATTATAAAGATTTAACTATTTTATGCTGAAGTGACCATATTTTC  
AAGGGGTGAAACCATCTCGCACACAGCAATGAAGGTAGTCATCCATAGACTTGAAATGAGACCACATATGGGGAT  
GAGATCCTTCTAGTTAGCCTAGTACTGCTGTACTGGCCTGTATGTACATGGGGTCCTTCAACTGAGGCCTTGCAA  
GTCAAGCTGGCTGTGCCATGTTTGTAGATGGGGCAGAGGAATCTAGAACAATGGGAACTTAGCTATTTATATTA  
GGTACAGCTATTAAACAAGGTAGGAATGAGGCTAGACCTTTAACTTCCCTAAGGCATACTTTTCTAGCTACCTT  
CTGCCCTGTGTCTGGCACCTACATCCTTGATGATTGTCTCTTACCCATTCTGGAATTTTTTTTTTTTTTAAATA  
AATACAGAAAGCATCTTGAAAAAAAAAAAAAAAAAAAA

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**FIGURE 26**

MISASRAAAARLVGAAASRGPTAARHQDSWNGLSHEAFRLVSRRDYASEAIKGAVVGIDLGTTNSCVAVMEGKRA  
KVLENAEGARTTPSVVAFTADGERLVGMMPAKRQAVTNPNNTFYATKRLIGRRYDDPEVQKDIKNVPFKIVRASNG  
DAWVEAHGKLYSPSQIGAFVLMKMKETAENYLGRTAKNAVITVPAYFNDSQRQATKDAGQISGLNVLRVINEPTA  
AALAYGLDKSEDKVIAVYDLGGGTFDISILEIQKGVFEVKSTNGDTFLGGEDFDQALLRHIVKEFKRETGVDLTK  
DNMALQRVREAAEKAKCELSSSVQTDINLPYLTMDSSGPKHLNMKLTRAQFEGIVTDLIRRTIAPCQKAMQDAEV  
SKSDIGEVLVGGMTRMPKVQQTVQDLFGRAPSKAVNPDEAVAIGAAIQGGVLAGDVTDVLLLDVTPLSLGIETL  
GGVFTKLINRNTTIPTKKSQVFSTAADGQTQVEIKVCQGEREMAGDNKLLGQFTLIGIPPAPRGVPQIEVTFDID  
ANGIVHVSADKDKGTGREQQIVIQSSGGLSKDDIENMVKNAEKYAEEDRRKKERVEAVNMAEGIIHDTETKMEEFK  
DQLPADECNKLKEEISKMRELLARKDSETGENIRQAASSLQQASLKLFE MAYKKMASERE GSGSGSGTGEQKEDQK  
EEKQ

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**FIGURE 27**

GGCACGAGGGGAGCGCTTGTTTGCTGCCTCGTACTCCTCCATTTATCCGCC**ATG**AATAAGTGCCAGCCGAGCTGCA  
GCAGCCCGTCTCGTGGGCGCCGAGCCTCCCGGGGGCCCTACGGCCGCCCGCCACCAGGATAGCTGGAATGGCCTT  
AGTCATGAGGCTTTTAGACTTGTTTCAAGGCGGGATTATGCATCAGAAGCAATCAAGGGAGCAGTTGTTGGTATT  
GATTTGGGTACTACCAACTCCTGCGTGGCAGTTATGGAAGGTAAACGAGCAAAGGTGCTGGAGAATGCCGAAGGT  
GCCAGAACCACCCCTTCAGTTGTGGCCTTTACAGCAGATGGTGAGCGACTTGTTGGAATGCCGGCCAAGCGACAG  
GCTGTCACCAACCCAAACAATACATTTTATGCTACCAAGCGTCTCATTGGCCGGCGATATGATGATCCTGAAGTA  
CAGAAAGACATTAAAAATGTTCCCTTTAAAATTGTCCGTGCCTCCAATGGTGATGCCTGGGTTGAGGCTCATGGG  
AAATTGTATTCTCCGAGTCAGATTGGAGCATTGTGTTGATGAAGATGAAAGAGACTGCAGAAAAATTACTTGGGG  
CGCACAGCAAAAAATGCTGTGATCACAGTCCCAGCTTATTTCAATGACTCGCAGAGACAGGCCACTAAAGATGCT  
GGCCAGATATCTGGACTGAATGTGCTTCGGGTGATTAATGAGCCACAGCTGCTGCTCTTGCCATAGGTCTAGAC  
AAATCAGAAGACAAAGTCATTGCTGTATATGATTTAGGTGGTGGAACTTTGTATTTCTATCCTGGAAATTCAG  
AAAGGAGTATTTGAGGTGAAATCCACAAATGGGGATACCTTCTTAGGTGGGGAAGACTTTGACCAGGCCTTGCTA  
CGGCACATTGTGAAGGAGTTCAAGAGAGAGACAGGGGTGATTTGACTAAAGACAACATGGCACTTCAGAGGGTA  
CGGGAAGCTGCTGAAAAGGCTAAGTGTGAACCTCTCCTCATCTGTGCAGACTGACATCAATTTGCCCTATCTTACA  
ATGGATTCTTCTGGACCCAAGCATTGAATATGAAGTTGACCCGTGCTCAATTTGAAGGGATTGTCACTGATCTA  
ATCAGAAGGACTATCGCTCCATGCCAAAAAGCTATGCAAGATGCAGAAGTCAGCAAGAGTGACATAGGAGAAGTG  
ATTCTTGTGGGTGGCATGACTAGGATGCCCAAGGTTGAGCAGACTGTACAGGATCTTTTGGCAGAGCCCCAAGT  
AAAGCTGTCAATCCTGATGAGGCTGTGGCCATTGGAGCTGCCATTGAGGGAGGTGTGTTGGCCGGCGATGTCAG  
GATGTGCTGCTCCTTGATGTCACTCCCCTGTCTCTGGGTATTGAACTCTAGGAGGTGTCTTTACCAAACCTTATT  
AATAGGAATACCACTATTCCAACCAAGAAGAGCCAGGTATTCTCTACTGCCGCTGATGGTCAAACGCAAGTGGA  
ATTAAAGTGTGTGAGGGTGAAAGAGAGATGGCTGGAGACAACAACTCCTTGACAGTTTACTTTGATTGGAATT  
CCACCAGCCCCTCGTGGAGTTCCTCAGATTGAAGTTACATTTGACATTGATGCCAATGGGATAGTACATGTTTCT  
GCTAAAGATAAAGGCACAGGACGTGAGCAGCAGATTGTAATCCAGTCTTCTGGTGGATTAAGCAAAGATGATATT  
GAAAATATGGTTAAAAATGCAGAGAAATATGCTGAAGAAGACCGGCGAAAGAAGGAACGAGTTGAAGCAGTTAAT  
ATGGCTGAAGGAATCATTACGACACAGAAACCAAGATGGAAGAATTCAAGGACCAATTACCTGCTGATGAGTGC  
AACAAGCTGAAAGAAGAGATTTCCAAAATGAGGGAGCTCCTGGCTAGAAAAGACAGCGAAAACAGGAGAAAATATT  
AGACAGGCAGCATCCTCTCTTCAGCAGGCATCATTGAAGCTGTTTCGAAATGGCATACAAAAAGATGGCATCTGAG  
CGAGAAGGCTCTGGAAGTTCTGGCACTGGGGAACAAAAGGAAGATCAAAAGGAGGAAAAACAG**TAA**TAAATAGCAG  
AAATTTTGAAGCCAGAAGGACAACATATGAAGCTTAGGAGTGAAGAGACTTCCTGAGCAGAAATGGGCGAACTTC  
AGTCTTTTTACTGTGTTTTTGCAGTATTCTATATATAATTTCTTAATTTGTAAATTTAGTGACCATTAGCTAGT  
GATCATTTAATGGACAGTGATTCTAACAGTATAAAGTTTACAATATTCTATGTCCCTAGCCTGTCATTTTTTCAGC  
TGCATGTAAAAGGAGGTAGGATGAATTGATCATTATAAAGATTTAACTATTTTATGCTGAAGTGACCATATTTTC  
AAGGGGTGAAACCATCTCGCACACAGCAATGAAGGTAGTCATCCATAGACTTGAAATGAGACCACATATGGGGAT  
GAGATCCTTCTAGTTAGCCTAGTACTGCTGTACTGGCCTGTATGTACATGGGGTCCTTCAACTGAGGCCTTGCAA  
GTCAAGCTGGCTGTGCCATGTTGTAGATGGGGCAGAGGAATCTAGAACAAATGGGAACTTAGCTATTTATATTA  
GGTACAGCTATTAAAAACAAGGTAGGAATGAGGCTAGACCTTTAACTTCCCTAAGGCATACTTTCTAGCTACCTT  
CTGCCCTGTGTCTGGCACCTACATCCTTGATGATTGTTCTCTTACCCATTCTGGAATTTTTTTTTTTTTTAAATA  
AATACAGAAAGCATCTTGAAAAAAAAAAAAAAAAAAAA

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**FIGURE 28**

MISASRAAAARLVGAAASRGPTAARHQDSWNGLSHEAFRLVSRDYASEAIKGAVVGIDLGTTNSCVAVMEGKRA  
KVLENAEGARTTPSVVAFTADGERLVGMPAKRQAVTNPNNTFYATKRLIGRRYDDPEVQDKIKNVPFKIVRASNG  
DAWVEAHGKLYSPSQIGAFVLMKMKETAENYLGRTAKNAVITVPAYFNDSQRQATKDAGQISGLNVLRVINEPTA  
AALAYGLDKSEDKVIAVYDLGGGTFDISILEIQKGVFEVKSTNGDTFLGGEDFDQALLRHIVKEFKRETGVDLTK  
DNMALQRVREAAEKAKCELSSSVQTDINLPYLTMDSSGPKHLNMKLTRAQFEGIVTDLIRRTIAPCQKAMQDAEV  
SKSDIGEVILVGGMTRMPKVQQTVDLFGRAPSKAVNPDEAVAIGAAIQGGVLAGDVTDVLLLDVTPLSLGIETL  
GGVFTKLINRNTTIPTKKSQVFSTAADGQTQVEIKVCQGEREMAGDNKLLGQFTLIGIPPAPRGVPQIEVTFDID  
ANGIVHVSADKGTGREQQIVIQSSGGLSKDDIENMVKNAEKYAEEDRRKKERVEAVNMAEGIIHDTETKMEEFK  
DQLPADECNKLKEEISKMRELLARKDSETGENIRQAASSLQQASLKLFE MAYKKMASEREGSGSSGTGEQKEDQK  
EEKQ

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**FIGURE 29**

GCCGTGTCGCCACCATGGCTCCGCACCGCCCCGCGCCCGCGCTGCTTTGCGCGCTGTCCCTGGCGCTGTGCGCGC  
TGTCGCTGCCCCGTCCGCGCGGCCACTGCGTCGCGGGGGGCGTCCCAGGCGGGGGCGCCCCAGGGGCGGGTGCCCG  
AGGCGCGGGCCCAACAGCATGGTGGTGGAAACCCCCGAGTTCTCAAGGCAGGGAAGGAGCCTGGCCTGCAGATCT  
GGCGTGTTGAGAAGTTCGATCTGGTGCCCGTGCCACCAACCTTTATGGAGACTTCTTCACGGGCGACGCCTACG  
TCATCCTGAAGACAGTGCAGCTGAGGAACGGAAATCTGCAGTATGACCTCCACTACTGGCTGGGCAATGAGTGCA  
GCCAGGATGAGAGCGGGGCGGCCGCCATCTTTACCGTGCAGCTGGATGACTACCTGAACGGCCGGGCGCTGCAGC  
ACCGTGAGGTCCAGGGCTTCGAGTCGGCCACCTTCCTAGGCTACTTCAAGTCTGGCCTGAAGTACAAGAAAGGAG  
GTGTGGCATCAGGATTCAAGCACGTGGTACCCAACGAGGTGGTGGTGCAGAGACTCTTCAGGTCAAAGGGCGGC  
GTGTGGTCCGTGCCACCGAGGTACCTGTGTCTGGGAGAGCTTCAACAATGGCGACTGCTTCATCCTGGACCTGG  
GCAACAACATCCACCAAGTGGTGTGGTTCACAACAGCAATCGGTATGAAAGACTGAAGGCCACACAGGTGTCCAAGG  
GCATCCGGGACAACGAGCGGAGTGGCCGGGCCCCGAGTGCACGTGTCTGAGGAGGGCACTGAGCCCCGAGGCGATGC  
TCCAGGTGCTGGGCCCCAAGCCGGCTCTGCCTGCAGGTACCGAGGACACCGCCAAGGAGGATGCGGCCAACCGCA  
AGCTGGCCAAGCTCTACAAGGTCTCCAATGGTGCAGGGACCATGTCCGTCTCCCTCGTGGCTGATGAGAACCCTT  
TCGCCCAGGGGGCCCTGAAGTCAGAGGACTGCTTCATCCTGGACCACGGCAAAGATGGGAAAATCTTTGTCTGGA  
AAGGCAAGCAGGCAAACACGGAGGAGAGGAAGGCTGCCCTCAAAACAGCCTCTGACTTCATCACCAAGATGGACT  
ACCCCAAGCAGACTCAGGTCTCGTCTCTTCTGAGGGCGGTGAGACCCCACTGTTCAAGCAGTTCTTCAAGAACT  
GGCGGGACCCAGACCAGACAGATGGCCTGGGCTTGTCTACCTTTCCAGCCATATCGCCAACGTGGAGCGGGTGC  
CCTTCGACGCCGCCACCTGCACACCTCCACTGCCATGGCCGCCAGCACGGCATGGATGACGATGGCACAGGCC  
AGAAACAGATCTGGAGAATCGAAGGTTCCAACAAGGTGCCCGTGGACCCTGCCACATATGGACAGTTCTATGGAG  
GCGACAGCTACATCATTCTGTACAACCTACCGCCATGGTGGCCGCCAGGGGCAGATAATCTATAACTGGCAGGGTG  
CCCAGTCTACCCAGGATGAGGTGCTGCATCTGCCATCCTGACTGCTCAGCTGGATGAGGAGCTGGGAGGTACCC  
CTGTCCAGAGCCGTGTGGTCCAAGGCAAGGAGCCCGCCACCTCATGAGCCTGTTTGGTGGGAAGCCCATGATCA  
TCTACAAGGGCGGCACCTCCCGCGAGGGCGGGCAGACAGCCCTGCCAGCACCCGCCCTCTTCAGGTCCGCGCCA  
ACAGCGCTGGAGCCACCCGGGCTGTTGAGGTATTGCCTAAGGCTGGTGCCTGAACCTCAACGATGCCTTTGTTC  
TGAAAACCCCCCTCAGCCGCCCTACCTGTGGGTGGGTACAGGAGCCAGCGAGGCAGAGAAGACGGGGGCCAGGAGC  
TGCTCAGGGTGCTGCGGGCCCAACCTGTGCAGGTGGCAGAAGGCAGCGAGCCAGATGGCTTCTGGGAGGCCCTGG  
GCGGGAAGGCTGCCCTACCGCACATCCCCACGGCTGAAGGACAAGAAGATGGATGCCCATCCTCCTCGCCTCTTTG  
CCTGCTCCAACAAGATTGGACGTTTTTGTGATCGAAGAGGTTCTTGGTGAGCTCATGCAGGAAGACCTGGCAACGG  
ATGACGTCATGCTTCTGGACACCTGGGACCAGGTCTTTGTCTGGGTTGGAAAGGATTCTCAAGAAGAAGAAAAGA  
CAGAAGCCTTGACTTCTGCTAAGCGGTACATCGAGACGGACCCAGCCAATCGGGATCGGCGGACGCCCATCACCG  
TGGTGAAGCAAGGCTTTGAGCCTCCCTCCTTTGTGGGCTGGTTCCCTGGCTGGGATGATGATTACTGGTCTGTGG  
ACCCCTTGGACAGGGCCATGGCTGAGCTGGCTGCCTCAGGAGGGGCAGGGCCCCACCCATGTCACCGGTCAGTGCC  
TTTTGGAAGTGTCTTCCCTCAAAGAGGCCTTAGAGCGAGCAGAGCAGCTCTGCTATGAGTGTGTGTGTGTGT  
GTGTTGTTTCTTTTTTTTTTTTTTACAGTATCAAAAATAGCCCTGCAAAAATTCAGAGTCCTTGCAAAATTGTC  
TAAAATGTCAGTGTGTTGGGAAATTAAATCCAATAAAAACATTTTGAAGTGTG

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**FIGURE 30**

MAPHRPAPALLCALSLALCALSLPVRAATASRGASQAGAPQGRVPEARPNMVEHPEFLKAGKEPGLQIWRVEK  
FDLVPVPTNLYGDDFTGDAYVILKTVQLRNGNLQYDLHYWLGNECSQDESGAAAIFTVQLDDYLNGRAVQHREVQ  
GFESATFLGYFKSGLKYYKGGVASGFKHVPNEVVQRLFQVKGRRVVRATEVPVSWESFNNGDCFILDLGNNIH  
QWCGSNSNRYERLKATQVSKGIRDNERSGRARVHVSEEGTEPEAMLQVLGPKPALPAGTEDTAKEDAANRKLAKL  
YKVSNGAGTMSVSLVADENPFAQGALKSEDCFILDHGKDGKIFVWKGKQANTEERKAALKTASDFITKMDYPKQT  
QVSVLPEGGETPLFKQFFKNWRDPDQTDGLGLSYLSSHIANVERVPFDAATLHTSTAMAAQHGMDDDGKGQKIW  
RIEGSNKVPVDPATYGQFYGGDSYIILYNRYRHGGRQGQIIYNWQGAQSTQDEVAASAILTAQLDEELGGTPVQSR  
VVQGKEPAHLMSLFGGKPMIYKGGTSREGGQTAPASTRLFQVRANSAGATRAVEVLPKAGALNSNDAFVLKTPS  
AAYLWVG TGASEAEKTGAQELLRVLRAQPVQVAEGSEPDGFWEALGGKAA YRTSPRLKDKKMDAHPRLFACSNK  
IGRFVIEEVPGELMQEDLATDDVMLLDTWDQVFVWVGKDSQEEEEKTEALTSAKRYIETDPANRDRRTPITVVKQG  
FEPPSFVGWFLGWDDDYWSVDPLDRAMAELAA

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**FIGURE 31**

CGCCCCTGCTCTCGCGCCGGCGTCGGCTGCGTCTCCGGCGTTTGAATTGCGCTTCCGCCATCTTTCCAGCCTCAG  
TCGGACGGGCGCGGAGGCGCTTCTGGAAGGAACGCCGCG**ATG**GCTGCGCAGGGAGAGCCCCAGGTCCAGTTCAAA  
CTTGATTGGTTGGTGATGGTGGTACTGGAAAAACGACCTTCGTGAAACGTCATTTGACTGGTGAATTTGAGAAG  
AAGTATGTAGCCACCTTGGGTGTTGAGGTTTCATCCCCTAGTGTTCCACACCAACAGAGGACCTATTAAGTTCAAT  
GTATGGGACACAGCCGGCCAGGAGAAATTCGGTGGACTGAGAGATGGCTATTATATCCAAGCCCAGTGTGCCATC  
ATAATGTTTGATGTAAACATCGAGAGTTACTTACAAGAATGTGCCTAACTGGCATAGAGATCTGGTACGAGTGTGT  
GAAAACATCCCCATTGTGTTGTGTGGCAACAAAGTGGATATTAAGGACAGGAAAGTGAAGGCGAAATCCATTGTC  
TTCCACCGAAAGAAGAATCTTCAGTACTACGACATTTCTGCCAAAAGTAACTACAACTTTGAAAAGCCCTTCCTC  
TGGCTTGCTAGGAAGCTCATTGGAGACCCTAACTTGGAATTTGTTGCCATGCCTGCTCTCGCCCCACCAGAAGTT  
GTCATGGACCCAGCTTTGGCAGCACAGTATGAGCACGACTTAGAGGTTGCTCAGACAACTGCTCTCCCGGATGAG  
GATGATGACCTG**TGAGA**ATGAAGCTGGAGCCCAGCGTCAGAAGTCTAGTTTTATAGGCAGCTGTCCTGTGATGTC  
AGCGGTGCAGCGTGTGTGCCACCTCATTATTATCTAGCTAAGCGGAACATGTGCTTTATCTGTGGGATGCTGAAG  
GAGATGAGTGGGCTTCGGAGTGAATGTGGCAGTTTAAAAAATAACTTCATTGTTTGGACCTGCATATTTAGCTGT  
TTGGACGCAGTTGATTCCCTTGAGTTTCATATATAAGACTGCTGCAGTCACATCACAATATTCAGTGGTGAAATCT  
TGTTTGTTACTGTCAATCCCATTCCTTTTCTTTAGAATCAGAATAAAGTTGTATTTCAAATATCTAAGCAAGTGA  
ACTCATCCCTTGTTTATAAATAGCATTGTGGAAACCACTAAAGTAGGGAAGTTTATGCCATGTTAATATTTGAAT  
TGCCTTGCTTTTATCACTTAATTTGAAATCTATTGGGTAAATTTCTCCCTATGTTTATTTTGTACATTTGAGCC  
ATGTCACACAACTGATGATGACAGGTCAGCAGTATTCTATTTGGTTAGAAGGGTTACATGGTGTAAATATTAGT  
GCAGTTAAGCTAAAGCAGTGTTTGCTCCACCTTCATATTGGCTAGGTAGGGTCACCTAGGGAAGCACTTGCTCAA  
AATCTGTGACCTGTCAGAATAAAAAATGTGGTTTGTACATATCAAATAGATATTTTAAGGGTAATATTTCTTTTA  
TGGCAAAAGTAATCATGTTTAAATGTAGAACCTCAAACAGGATGGAACATCAGTGGATGGCAGGAGGTTGGGAAT  
TCTTGCTGTATAAAATAATTACAAATTTTGCACTTTTTGTTTGAATGTTAGATGCTTAGTGTGAAGTTGATACGC  
AAGCCG

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## FIGURE 32

MAAQGE PQVQFKLVLVGDGGTGKTTFVKRHLTGEFEKKYVATLGVEVHPLVFHTNRGPIKFNVWDTAGQEKFGGL  
RDGYYIQAQCAIIMFDVTSRVTYKNVPNWHRDLVRVCENIPIVLCGNKVDIKDRKVKAKSIVFHRKKNLQYYDIS  
AKSNYNFEKPFLWLARKLIGDPNLEFVAMPALAPPEVVM DPALAAQYEHDLVAQT TALPDEDDDL



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**FIGURE 33**

GGCACGAGGCGCCCGCTGCTACGAGTAGAACGCTGTCCGCAGCTTGCGCATTTTCGCAGCCGCTGCCGCTCGCC  
GCTGCTCCTTCGTAAGGCCACTTCCGCACACCGACACCAACATGAACGGACAGCTCAACGGCTTCCACGAGGCGT  
TCATCGAGGAGGGCACATTCCCTTTTCACCTCAGAGTCGGTCGGGGAAGGCCACCCAGATAAGATTTGTGACCAAA  
TCAGTGATGCTGTCCTTGATGCCCACCTTCAGCAGGATCCTGATGCCAAAGTAGCTTGTGAAACTGTTGCTAAAA  
CTGGAATGATCCTTCTTGCTGGGGAAATTACATCCAGAGCTGCTGTTGACTACCAGAAAAGTGGTTCGTGAAGCTG  
TTAAACACATTGGATATGATGATTCTTCCAAAGTTTTGACTACAAGACTTGTAACGTGCTGGTAGCCTTGGAGC  
AACAGTCACCAGATATTGCTCAAGGTGTTTCATCTTGACAGAAATGAAGAAGACATTGGTGCTGGAGACCAGGGCT  
TAATGTTTGGCTATGCCACTGATGAACTGAGGAGTGTATGCCTTTAACCATTGTCTTGGCACACAAGCTAAATG  
CCAACTGGCAGAACTACGCCGTAATGGCACTTTGCCTTGGTTACGCCCTGATTCTAAACTCAAGTTACTGTGC  
AGTATATGCAGGATCGAGGTGCTGTGCTTCCCATCAGAGTCCACACAATTGTTATATCTGTTTCAGCATGATGAAG  
AGGTTTGTCTTGATGAAATGAGGGATGCCCTAAAGGAGAAAGTCATCAAAGCAGTTGTGCCTGCGAAATACCTTG  
ATGAGGATACAATCTACCACCTACAGCCAAGTGGCAGATTTGTTATTGGTGGGCTCAGGGTGATGCTGGTTTGA  
CTGGACGCAAAATCATTGTGGACACTTATGGCGGTTGGGGTGCTCATGGAGGAGGTGCCCTTTTCAGGAAAGGATT  
ATACCAAGGTCGACCGTTTCAGCTGCTTATGCTGCTCGTTGGGTGGCAAAATCCCTTGTTAAAGGAGGTCTGTGCC  
GGAGGGTTCTTGTTTCAGGTCTCTTATGCTATTGGAGTTTTCTCATCCATTATCTATCTCCATTTTCCATTATGGTA  
CCTCTCAGAAGAGTGAGAGAGAGCTATTAGAGATTGTGAAGAAGAATTTTCGATCTCCGCCCTGGGGTCATTGTCA  
GGGATCTGGATCTGAAGAAGCCAATTTATCAGAGGACTGCAGCCTATGGCCACTTTGGTAGGGACAGCTTCCCAT  
GGGAAGTGCCCAAAAAGCTTAAATATTGAAAGTGTTAGCCTTTTTTCCCCAGACTTGTGGCGTAGGCTACAGAG  
AAGCCTTCAAGCTCTGAGGGAAAGGGCCCTCCTTCTAAATTTTCTGTCTCTTTCAGCTCCTGACCAGTTGCA  
GTCACTCTAGTCAATGACATGAATTTTAGCTTTTGTGGGGGACTGTAAGTTGGGCTTGCTATTCTGTCCCTAGGT  
GTTTTGTTTACCATTATAATGAATTTAGTGAGCATAGGTGATCCATGTAAGTGCCTAGAAACAACACTGTAGTAA  
ATAATGCTTTGAAATTGAACCTTTGTGCCCTATCACCCAACGCTCCAAAGTCATAATTGCATTGACTTTCCCCAC  
CAGATGCTGAAAATGTCTTGTGATGTGCACGTAAAGTACTTGTAGTTCCACTTATAGCCTCTGTCTGGCAATGC  
CACAGCCCTGTCAGCATGAATTTGTAATGTCTTGAGCTCTATTATGAATGTGAAGCCTTCCCCTTATCCTCCCTG  
TAACTTGATCCATTTCTAATTATGTAGCTCTTTGTGAGGGAGTGTTCCCTATCCAATCAATCTTGTCATGTAACGC  
AAGTTCCCAGTTGGAGCTCCAGCCTGACATCAAAAAAGGCAGTTACCATTAAACCATCTCCCTGGTGCTTATGCT  
CTTAATTGCCACCTCTAACAGCACCAATCAAAATCTCTCCACTTTCAGCTGTCTTTTGGAGGACGTACGTAATA  
AGGTTTTTAATTTAGTAAACCAATCCTATGCATGGTTTCAGCACTAGCCAAACCTCACCAACTCCTAGTTCTAGAA  
AAACAGGCACTTGGCAGCCTTGTGATGTACATACAGAGAAGTCACAGGGCAGTACCTGAGGGTCTGTAGGTTGCAC  
ACTTTGGTACCAGATAACTTTTTTTTTTCTTTATAAGAAAGCCTGAGTACTCCACACTGCACAATAACTCCTCCC  
AGGGTTTTAACTTTGTTTTATTTTCAAAACCAGGTCCAATGAGCTTTCTGAACAGCTGGTGTAGCTACAGAGAAA  
CCAGCTTCCTTCAGAGAGCAGTGCTTTTGGCGGGGAGGAGGAAATCCCTTCATACTTGAACGTTTTCTAATTGCT  
TATTTATTGTATTCTGGGGTATGGCGTAAGTACAGAGAAGCCATCACCTCAGATGGCAGCTTTTAAAAGATTTTT  
TTTTTTCTCTCAACACCATGATTCTTTAACAACATGTTTCCAGCATTCCCAGGTAGGCCAAGGTGTCCTACAG  
AAAAACCTTGGGTAGACCTACAGGGGGTCTGGCTGGTGTAAACAGAAGGGAGGGCAGAGCTGGTGC GGCTGGCC  
ATGGAGAAAGCTGACTTGGCTGGTGTGGTACAGAGAAGCCAGCTTGTTTACATGCTTATCCATGACTGCTTGCC  
CTAAGCAGAAAGTGCCCTTCAGGATCTATTTTGGAGGTTTTATTACGTATGTCTGGTTCTCAATTCCAACAGTTT  
AATGAAGATCTAAATAAAATGCTAGGTTCTACCTTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 34**

MNGQLNGFHEAFIEEGTFLFTSESVGEGHPDKICDQISDAVLDAHLQQDPDAKVACETVAKTGMILLAGEITSRA  
AVDYQKVVREAVKHIGYDDSSKGFYKTCNVLVALEQQSPDIAQGVHLDRNEEDIGAGDQGLMFGYATDETEECM  
PLTIVLAHKLNAKLAELRRNGTLPWLRPDSKTQVTVQYMQDRGAVLP IRVHTIVISVQHDEEVCLDEMRDALKEK  
VIKAVVPAKYLDDEDTIYHLQPSGRFVIGGPQGDAGLTGRKIIVDTYGGWGAHGGGAFSGKDYTKVDRSAAYAARW  
VAKSLVKGGLCRRVLVQVSYAIGVSHPLSISIFHYGTSQKSERELLEIVKKNFDLRPGVIVRDLDLKKPIYQRTA  
AYGHFGRDSFPWEVPKKLKY

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**FIGURE 35**

GGCACGAGGCGCCCGCCTGCTACGAGTAGAACGCTGTCCGCAGCTTGCGCATTTGCGAGCCGCTGCCGCTCGCC  
GCTGCTCCTTCGTAAGGCCACTTCCGCACACCGACACCAACATGAACGGACAGCTCAACGGCTTCCACGAGGCGT  
TCATCGAGGAGGGCACATTCCCTTTTCACCTCAGAGTCGGTCGGGGAAGGCCACCCAGATAAGATTTGTGACCAAA  
TCAGTGATGCTGTCTTGATGCCCACCTTCAGCAGGATCCTGATGCCAAAGTAGCTTGTGAAACTGTTGCTAAAA  
CTGGAATGATCCTTCTTGCTGGGGAAATTACATCCAGAGCTGCTGTTGACTACCAGAAAAGTGGTTCGTGAAGCTG  
TTAAACACATTGGATATGATGATTCTTCCAAAGGTTTTGACTACAAGACTTGTAACGTGCTGGTAGCCTTGGAGC  
AACAGTCACCAGATATTGCTCAAGGTGTTTCATCTTGACAGAAATGAAGAAGACATTGGTGTGAGAGCCAGGGCT  
TAATGTTTGGCTATGCCACTGATGAAACTGAGGAGTGTATGCCTTTAACCATTGTCTTGGCACACAAGCTAAATG  
CCAAACTGGCAGAACTACGCCGTAATGGCACTTTGCCTTGGTTACGCCCTGATTCTAAACTCAAGTTACTGTGC  
AGTATATGCAGGATCGAGGTGCTGTGCTTCCCATCAGAGTCCACACAATTGTTATATCTGTTTCAGCATGATGAAG  
AGGTTTGTCTTGATGAAATGAGGGATGCCCTAAAGGAGAAAGTCATCAAAGCAGTTGTGCCTGCGAAATACCTTG  
ATGAGGATACAATCTACCACCTACAGCCAAGTGGCAGATTTGTTATTGGTGGGCCCTCAGGGTGATGCTGGTTTGA  
CTGGACGCAAAATCATTGTGGACACTTATGGCGGTTGGGGTGCTCATGGAGGAGGTGCCTTTTCAGGAAAGGATT  
ATACCAAGGTCGACCGTTCAGCTGCTTATGCTGCTCGTTGGGTGGCAAAATCCCTTGTTAAAGGAGGTCTGTGCC  
GGAGGGTTCTTGTTCAAGTCTCTTATGCTATTGGAGTTTCTCATCCATTATCTATCTCCATTTTCCATTATGGTA  
CCTCTCAGAAGAGTGAGAGAGAGCTATTAGAGATTGTGAAGAAGAATTTGATCTCCGCCCTGGGGTCATTGTCA  
GGGATCTGGATCTGAAGAAGCCAATTTATCAGAGGACTGCAGCCTATGGCCACTTTGGTAGGGACAGCTTCCCAT  
GGGAAGTGCCCAAAAGCTTAAATATTGAAAGTGTTAGCCTTTTTTCCCCAGACTTGTTGGCGTAGGCTACAGAG  
AAGCCTTCAAGCTCTGAGGGAAAGGGCCCTCCTTCTAAATTTTCTGTCTCTTTCAGCTCCTGACCAGTTGCA  
GTCACTCTAGTCAATGACATGAATTTTAGCTTTTGTGGGGGACTGTAAGTTGGGCTTGCTATTCTGTCCCTAGGT  
GTTTTGTTACCATTTATAATGAATTTAGTGAGCATAGGTGATCCATGTAAGTGCCTAGAAACAACACTGTAGTAA  
ATAATGCTTTGAAATTGAACCTTTGTGCCCTATCACCCAACGCTCCAAAGTCATAATTGCATTGACTTTCCCCAC  
CAGATGCTGAAAATGTCCTTGTGATGTGCACGTAAAGTACTTGTAGTTCCACTTATAGCCTCTGTCTGGCAATGC  
CACAGCCCTGTCAGCATGAATTTGTAATGTCTTGAGCTCTATTATGAATGTGAAGCCTTCCCCTTATCCTCCCTG  
TAACTTGATCCATTTCTAATTATGTAGCTCTTTGTGAGGAGTGTTCCCTATCCAATCAATCTTGTCATGTAACGC  
AAGTTCCCAGTTGGAGCTCCAGCCTGACATCAAAAAAGGCAGTTACCATTAAACCATCTCCCTGGTGCTTATGCT  
CTTAATTGCCACCTCTAACAGCACCAATCAAAATCTCTCCACTTTCAGCTGTCTTTTGGAGGACGTACGTAATA  
AGGTTTTAATTTAGTAAACCAATCCTATGCATGGTTTTAGCACTAGCCAAACCTCACCAACTCCTAGTTCTAGAA  
AAACAGGCACTTGGCAGCCTTGTGATGTCATACAGAGAAGTCACAGGGCAGTACCTGAGGGTCTGTAGGTTGCAC  
ACTTTGGTACCAGATAACTTTTTTTTTTCTTTATAAGAAAGCCTGAGTACTCCACACTGCACAATAACTCCTCCC  
AGGGTTTTAACTTTGTTTTATTTTCAAACCAGGTCCAATGAGCTTTCTGAACAGCTGGTGTAGCTACAGAGAAA  
CCAGCTTCCTTCAGAGAGCAGTGCTTTTGGCGGGGAGGAGGAAATCCCTTCATACTTGAACGTTTTCTAATTGCT  
TATTTATTGTATTCTGGGGTATGGCGTAAGTACAGAGAAGCCATCACCTCAGATGGCAGCTTTTAAAGATTTTT  
TTTTTTCTCTCAACACCATGATTCCTTTAACAACATGTTTCCAGCATCCCAGGTAGGCCAAGGTGTCTACAG  
AAAAACCTTGGGTAGACCTACAGGGGTCTGGCTGGTGTAAACAGAAGGGAGGGCAGAGCTGGTGC GGCTGGCC  
ATGGAGAAAGCTGACTTGGCTGGTGTGGTACAGAGAAGCCAGCTTGTTTACATGCTTATTCCATGACTGCTTGCC  
CTAAGCAGAAAGTGCCTTTCAGGATCTATTTTGGAGGTTTATTACGTATGTCTGGTTCTCAATTCCAACAGTTT  
AATGAAGATCTAAATAAAATGCTAGGTTCTACCTTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 36**

MNGQLNGFHEAFIEEGTFLFTSESVGEGHPDKICDQISDAVLDAHLQQDPDAKVACETVAKTGMILLAGEITSRA  
AVDYQKVVREAVKHIGYDDSSKGFYKTCNVLVALEQQSPDIAQGVHLDRNEEDIGAGDQGLMFGYATDETEECM  
PLTIVLAHKLNAKLAELRRNGTLPWLRPDSKTQVTVQYMQDRGAVLP IRVHTIVISVQHDEEVCLDEMRDALKEK  
VIKAVVPAKYLDDETIYHLQPSGRFVIGGPQGDAGLTGRKII VDTYGGWGAHGGGAFSGKDYTKVDRSAAYAARW  
VAKSLVKGGLCRRVLVQVSYAIGVSHPLSISIFHYGTSQKSERELLEIVKKNFDLRPGVIVRDLDLKKPIYQRTA  
AYGHFGRDSFPWEVPPKKLKY

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**FIGURE 37**

GTCAGTCCCTCCTGTAGCCGCCGCCGCCGCCGCCGCCGCCCTCTGCCAGCAGCTCCGGCGCCACCTCGGGCCG  
GCGTCTCCGGCGGGCGGGAGCCAGGCGCTGACGGGCGCGCGGGGGCGGCCGAGCGCTCCTGCGGCTGCGACTCA  
GGCTCCGGCGTCTGCGCTTCCCATGGGGCTGGCCTGCGGCGCCTGGGCGCTCTGAGATTGTCACTGCTGTTCCA  
AGGGCACACGCAGAGGGATTTGGAATTCCTGGAGAGTTGCCTTTGTGAGAAGCTGGAAATATTTCTTTCAATTCC  
ATCTCTTAGTTTTCCATAGGAACATCAAGAAATCATGAACAACCTTTGGTAATGAAGAGTTTGACTGCCACTTCCT  
CGATGAAGGTTTTACTGCCAAGGACATTCTGGACCAGAAAATTAATGAAGTTTCTTCTTCTGATGATAAGGATGC  
CTTCTATGTGGCAGACCTGGGAGACATTCTAAAGAAACATCTGAGGTGGTTAAAAGCTCTCCCTCGTGTCACCCC  
CTTTTATGCAGTCAAATGTAATGATAGCAAAGCCATCGTGAAGACCCTTGCTGCTACCGGGACAGGATTTGACTG  
TGCTAGCAAGACTGAAATACAGTTGGTGCAGAGTCTGGGGGTGCCTCCAGAGAGGATTATCTATGCAAATCCTTG  
TAAACAAGTATCTCAAATTAAGTATGCTGCTAATAATGGAGTCCAGATGATGACTTTTGATAGTGAAGTTGAGTT  
GATGAAAGTTGCCAGAGCACATCCCAAAGCAAAGTTGGTTTTGCGGATTGCCACTGATGATTTCAAAGCAGTCTG  
TCGCTCTCAGTGTGAAATTCGGTGCCACGCTCAGAACCAGCAGGCTCCTTTTGGAAACGGGCGAAAGAGCTAAATAT  
CGATGTTGTTGGTGTGAGCTTCCATGTAGGAAGCGGCTGTACCGATCCTGAGACCTTCGTGCAGGCAATCTCTGA  
TGCCCGCTGTGTTTTTGACATGGGGGCTGAGGTTGGTTTTCAGCATGTATCTGCTTGATATTGGCGGTGGCTTTCC  
TGGATCTGAGGATGTGAAACTTAAATTTGAAGAGATCACCGGCGTAATCAACCCAGCGTTGGACAAATACTTTCC  
GTCAGACTCTGGAGTGAGAATCATAGCTGAGCCCGGCAGATACTATGTTGCATCAGCTTTCACGCTTGCAAGTTAA  
TATCATTGCCAAGAAAATTGTATTAAAGGAACAGACGGGCTCTGATGACGAAGATGAGTCGAGTGAGCAGACCTT  
TATGTATTATGTGAATGATGGCGTCTATGGATCATTTAATTGCATACTCTATGACCACGCACATGTAAAGCCCTT  
CTTGCAAAGAGACCTAAACCAGATGAGAAGTATTATTCATCCAGCATATGGGGACCAACATGTGATGGCCTCGA  
TCGGATTGTTGAGCGCTGTGACCTGCCTGAAATGCATGTGGGTGATTGGATGCTCTTTGAAAACATGGGCGCTTA  
CACTGTTGCTGCTGCCTCTACGTTCAATGGCTTCCAGAGGCCGACGATCTACTATGTGATGTCAGGGCCTGCGTG  
GCAACTCATGCAGCAATTCCAGAACCCCGACTTCCACCCGAAGTAGAGGAACAGGATGCCAGCACCTGCCTGT  
GTCTTGTCCTGGGAGAGTGGGATGAAACGCCACAGAGCAGCCTGTGCTTCGGCTAGTATTAATGTGTAGATAGC  
ACTCTGGTAGCTGTAACTGCAAGTTTAGCTTGAATTAAGGGATTTGGGGGGACCATGTAAGTTAATTACTGCTA  
GTTTTGAAATGTCTTTGTAAGAGTAGGGTCGCCATGATGCAGCCATATGGAAGACTAGGATATGGGTACACTTA  
TCTGIGTTTCTATGGAACTATTTGAATATTTGTTTTATATGGATTTTTATTCACTCTTCAGACACGCTACTCAA  
GAGTGCCCTCAGCTGCTGAACAAGCATTTGTAGCTTGTACAATGGCAGAATGGGCCAAAAGCTTAGTGTTGTGA  
CCTGTTTTTAAATAAAGTATCTTGAAATAATTAGGC

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**FIGURE 38**

MNFGNEEFDCHFLDEGFTAKDILDQKINEVSSSDDKDAFYVADLGDILKKHLRWLKALPRVTPFYAVKCND  
SKAIVKTLAATGTGFDCASKTEIQLVQSLGVPPERIIYANPCKQVSQIKYAANNGVQMMTFDSEVELMKVARA  
HPKAKLVLRIATDDSKAVCRLSVKFGATLRTSRLLLERAKELNIDVVGVSFHVSGGCTDPETFVQAISDAR  
CVFDMGAEVGFSMYLLDIGGGFPGSEDVKLKFEETITGVINPALDKYFSDSGVRIIAEPGRYYVASAFTLAV  
NIIAKKIVLKEQTGSDDEDESSEQTFMYVNDGVYGSFNCILYDHAHVKPLLQKRPKPDEKYYSSSIWGPTCD  
GLDRIVERCDLPEMHVGDWMLFENMGAYTVAAASTFNGFQRPTIYYVMGPAWQLMQQFQNPDPPEVEEQDAS  
TLPVSCAWESGMKRHRAACASASINV

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**FIGURE 39**

CACGCTTGCCGCCGCCCGCAGAAATGCTTCGGTTACCCACAGTCTTTCGCCAGATGAGACCGGTGTCCAGGGTA  
CTGGCTCCTCATCTCACTCGGGCTTATGCCAAAGATGTAAAATTTGGTGCAGATGCCCGAGCCTTAATGCTTCAA  
GGTGTAGACCTTTTAGCCGATGCTGTGGCCGTTACAATGGGGCCAAAGGGAAGAACAGTGATTATTGAGCAGGGT  
TGGGGAAGTCCCAAAGTAACAAAAGATGGTGTGACTGTTGCAAAGTCAATTGACTTAAAAGATAAAATACAAGAAC  
ATTGGAGCTAAACTTGTTCAGATGTTGCCAATAACACAAATGAAGAAGCTGGGGATGGCACTACCACTGCTACT  
GTACTGGCAGCTCTATAGCCAAGGAAGGCTTCGAGAAGATTAGCAAAGGTGCTAATCCAGTGGAATCAGGAGA  
GGTGTGATGTTAGCTGTTGATGCTGTAATTGCTGAACTTAAAAAGCAGTCTAAACCTGTGACCACCCCTGAAGAA  
ATTGCACAGGTTGCTACGATTTCTGCAAACGGAGACAAAGAAATTGGCAATATCATCTCTGATGCAATGAAAAA  
GTTGGAAGAAAGGTGTGTCATCAGTAAAGGATGGAAAAACACTGAATGATGAATTAGAAATTATTGAAGGCATG  
AAGTTTGATCGAGGCTATATTTCTCCATACTTTATTAATACATCAAAAGGTCAGAAATGTGAATTCCAGGATGCC  
TATGTTCTGTTGAGTGAAAAGAAAATTTCTAGTATCCAGTCCATTGTACCTGCTCTTGAAATTGCCAATGCTCAC  
CGTAAGCCTTTGGTCATAATCGCTGAAGATGTTGATGGAGAAGCTCTAAGTACACTCGTCTTGAAATAGGCTAAAG  
GTTGGTCTTCAGGTTGTGGCAGTCAAGGCTCCAGGGTTTGGTGACAATAGAAAGAACCAGCTTAAAGATATGGCT  
ATTGCTACTGGTGGTGCAGTGTGTTGGAGAAGAGGGATTGACCCTGAATCTTGAAGACGTTTCAGCCTCATGACTTA  
GGAAAAGTTGGAGAGGTCATTGTGACCAAAGACGATGCCATGCTCTTAAAGGAAAAGGTGACAAGGCTCAAATT  
GAAAAACGTATTCAAGAAATCATTGAGCAGTTAGATGTCACAAGTGTGAATATGAAAAGGAAAAACTGAATGAA  
CGGCTTGCAAACCTTCAGATGGAGTGGCTGTGCTGAAGGTTGGTGGGACAAGTGATGTTGAAGTGAATGAAAAG  
AAAGACAGAGTTACAGATGCCCTTAATGCTACAAGAGCTGCTGTTGAAGAAGGCATTGTTTTGGGAGGGGGTTGT  
GCCCTCCTTCGATGCATTCCAGCCTTGGAATCATTGACTCCAGCTAATGAAGATCAAAAAATTGGTATAGAAATT  
ATTAAAAGAACACTCAAAATCCAGCAATGACCATTGCTAAGAATGCAGGTGTTGAAGGATCTTTGATAGTTGAG  
AAAATTATGCAAAGTTCTCAGAAGTTGGTTATGATGCTATGGCTGGAGATTTTGTGAATATGGTGGAAAAAGGA  
ATCATTGACCCAACAAAGGTTGTGAGAACTGCTTTATTGGATGCTGCTGGTGTGGCCTCTCTGTAACTACAGCA  
GAAGTTGTAGTCACAGAAATTCCTAAAGAAGAGAAGGACCCTGGAATGGGTGCAATGGGTGGAATGGGAGGTGGT  
ATGGGAGGTGGCATGTTCTAACTCCTAGACTAGTGCTTTACCTTTATTAATGAACTGTGACAGGAAGCCCAAGGC  
AGTGTTCCTCACCAATAACTTCAGAGAAGTCAGTTGGAGAAAATGAAGAAAAAGGCTGGCTGAAAACTACTATAA  
CCATCAGTTACTGGTTTCAGTTGACAAAAATATATAATGGTTTACTGCTGTCATTGTCCATGCCTACAGATAATTT  
ATTTTGTATTTTTGAATAAAAAACATTTGTACATTCCTGATACTGGGTACAAGAGCCATGTACCAGTGTTACTGCT  
TTCAACTTAAATCACTGAGGCATTTTTACTACTATTCTGTTAAATCAGGATTTTAGTGCTTGCCACCACCAGAT  
GAGAAGTTAAGCAGCCTTTCTGTGGAGAGTGAGAATAATTGTGTACAAAGTAGAGAAGTATCCAATTATGTGACA  
ACCTTTGTGTAATAAAAAATTTGTTTAA

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**FIGURE 40**

MLRLPTVFRQMRPVSRVLAPHLTRAYAKDVKFGADARALMLQGVDLLADAVAVTMGPKGRTVIEQGWGSPKVTK  
DGVTVAKSIDLKDKYKNIGAKLVQDVANNTNEEAGDGTTTATVLARSIAKEGFEEKISGANPVEIRRGVMLAVDA  
VIAELKKQSKPVTTPEEIAQVATISANGDKEIGNIISDAMKKVGRKGVITVKDGKTLNDELEIEGMKFDRGYIS  
PYFINTSKGQKCEFQDAYVLLSEKKISSIQSIVPALEIANAHRKPLVIAEDVDGEALSTLVNRLKVGLQVVAV  
KAPGFGDNRKNQLKDMAIATGGAVFGEEGLTLNLEDVQPHDLGKVGEVIVTKDDAMLLKGKGDKAQIEKRIQEI  
EQLDVTTSEYEKEKLNERLAKLSDGVAVLKVGGTSDVEVNEKKDRVTDALNATRAAVEEGIVLGGGCALLRCIPA  
LDSLTPANEDQKIGIEIIKRTLKIPAMTIAKNAGVEGSLIVEKIMQSSSEVGYDAMAGDFVNMVEKGIIDPTKVV  
RTALLDAAGVASLLTTAEVVVTEIPKEEKDPGMGAMGGMGGGMGGGMF



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**FIGURE 41**

CACGCTTGCCGCCGCCCGCAGAA**ATG**CTTCGGTTACCCACAGTCTTTGCCAGATGAGACCGGTGTCCAGGGTA  
CTGGCTCCTCATCTCACTCGGGCTTATGCCAAAGATGTAAAATTTGGTGCAGATGCCCAGCCTTAATGCTTCAA  
GGTGTAGACCTTTTAGCCGATGCTGTGGCCGTTACAATGGGGCCAAAGGGAAGAACAGTGATTATTGAGCAGGGT  
TGGGGAAGTCCCAAAGTAACAAAAGATGGTGTGACTGTTGCAAAGTCAATTGACTTAAAGATAAATACAAGAAC  
ATTGGAGCTAAACTTGTTCAAGATGTTGCCAATAACACAAATGAAGAAGCTGGGGATGGCACTACCACTGCTACT  
GTACTGGCACGCTCTATAGCCAAGGAAGGCTTCGAGAAGATTAGCAAAGGTGCTAATCCAGTGGAATCAGGAGA  
GGTGTGATGTTAGCTGTTGATGCTGTAATTGCTGAACTTAAAAAGCAGTCTAAACCTGTGACCACCCCTGAAGAA  
ATTGCACAGGTTGCTACGATTTCTGCAAACGGAGACAAAGAAATTGGCAATATCATCTCTGATGCAATGAAAAA  
GTTGGAAGAAAGGGTGTCAACAGTAAAGGATGGAAAAACACTGAATGATGAATTAGAAATTATTGAAGGCATG  
AAGTTTGATCGAGGCTATATTTCTCCATACTTTATTAATACATCAAAGGTCAGAAATGTGAATTCCAGGATGCC  
TATGTTCTGTTGAGTGAAAAGAAAATTTCTAGTATCCAGTCCATTGTACCTGCTCTTGAAATTGCCAATGCTCAC  
CGTAAGCCTTTGGTCATAATCGCTGAAGATGTTGATGGAGAAGCTCTAAGTACACTCGTCTTGAAATAGGCTAAAG  
GTTGGTCTTCAGGTTGTGGCAGTCAAGGCTCCAGGGTTTGGTGACAATAGAAAGAACCAGCTTAAAGATATGGCT  
ATTGCTACTGGTGGTGCAGTGTGTTGGAGAAGAGGGATTGACCCTGAATCTTGAAGACGTTTCAGCCTCATGACTTA  
GGAAAAGTTGGAGAGGTCATTGTGACCAAAGACGATGCCATGCTCTTAAAAGGAAAAGGTGACAAGGCTCAAATT  
GAAAAACGTATTCAAGAAATCATTGAGCAGTTAGATGTCACAACTAGTGAATATGAAAAGGAAAAACTGAATGAA  
CGGCTTGCAAACTTTTCAGATGGAGTGGCTGTGCTGAAGGTTGGTGGGACAAGTGATGTTGAAGTGAATGAAAAG  
AAAGACAGAGTTACAGATGCCCTTAATGCTACAAGAGCTGCTGTTGAAGAAGGCATTGTTTTGGGAGGGGGTTGT  
GCCCTCCTTCGATGCATTCCAGCCTTGGACTCATTGACTCCAGCTAATGAAGATCAAAAAATTGGTATAGAAATT  
ATTAAGAAGAACTCAAAATTCAGCAATGACCATTGCTAAGAATGCAGGTGTTGAAGGATCTTTGATAGTTGAG  
AAAATTATGCAAAGTTCCTCAGAAGTTGGTTATGATGCTATGGCTGGAGATTTTGTGAATATGGTGGAAAAAGGA  
ATCATTGACCCAACAAAGGTTGTGAGAACTGCTTTATTGGATGCTGCTGGTGTGGCCTCTCTGTAACTACAGCA  
GAAGTTGTAGTCACAGAAATTCCTAAAGAAGAGAAGGACCCTGGAATGGGTGCAATGGGTGGAATGGGAGGTGGT  
ATGGGAGGTGGCATGTTCT**TA**ACTCCTAGACTAGTGCTTTACCTTTATTAATGAAGTGTGACAGGAAGCCCAAGGC  
AGTGTTCCTCACCAATAACTTCAGAGAAGTCAGTTGGAGAAAATGAAGAAAAAGGCTGGCTGAAAATCACTATAA  
CCATCAGTTACTGGTTTTAGTTGACAAAATATATAATGGTTTACTGCTGCTCATTGTCCATGCCTACAGATAATTT  
ATTTTGTATTTTTGAATAAAAAACATTTGTACATTCTGATACTGGGTACAAGAGCCATGTACCAGTGACTGCT  
TTCAACTTAAATCACTGAGGCATTTTTACTACTATTCTGTTAAAATCAGGATTTTAGTGCTTGCCACCACCAGAT  
GAGAAGTTAAGCAGCCTTTCTGTGGAGAGTGAGAATAATTGTGTACAAAGTAGAGAAGTATCCAATTATGTGACA  
ACCTTTGTGTAATAAAAATTTGTTTAA

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**FIGURE 42**

MLRLPTVFRQMRPVSRVLAPHLTRAYAKDVKFGADARALMLQGVDLLADAVAVTMGPKGRTVIEQGWGSPKVTK  
DGVTVAKSIDLKDKYKNIGAKLVQDVANNTNEEAGDGTTTATVLARSIAKEGFEEKISKGANPVEIRRGVMLAVDA  
VIAELKKQSKPVTTPEEIAQVATISANGDKEIGNIISDAMKKVGRKGVITVKDGKTLNDELEIEGMKFDRGYIS  
PYFINTSKGQKCEFQDAYVLLSEKKISSIQSIVPALEIANAHRKPLVIAEDVDGEALSTLVNLRLKVGLQVVAV  
KAPGFGDNRKNQLKDMAIATGGAVFGEEGLTLNLEDVQPHDLGKVGEVIVTKDDAMLLKGKGDKAQIEKRIQEI  
EQLDVTTSEYEKEKLNERLAKLSDGVAVLKVGGSDEVNEKKDRVTDALNATRAAVEEGIVLGGGCALLRCIPA  
LDSLTPANEDQKIGIEIIKRTLKIPAMTIAKNAGVEGSLIVEKIMQSSSEVGYDAMAGDFVNMVEKGIIDPTKV  
RTALLDAAGVASLLTTAEVVVTEIPKEEKDPGMGAMGGMGGMGGMF

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**FIGURE 43A**

AGCGCCCGCCGCTCCGGGGCCGGCTGGTGCGCGAGACGCCGCCGAGAGTTGTGAAGGGCGCGGGTGGGGGGCGC  
TGCCGGCCTCGTGGGTACGTTCTGTGCCGCTCTGTCCAGAGCTGGGGCCGAGGAGCGGAGGCAAGAGGGGCAC  
**TATG**GCGAGACAAAGTTAGGAGGCAGAGGCCGAGGAGGCGAGTCTGTTGGGCCTTGGTGGCTGTGCTCTTGGCAGA  
CCTGTTGGCACTGAGTGATACTGGCAGTGATGTCTGTGGACCTGGGCAGTGAGTCCATGAAGGTGGCCATTGT  
CAAACCTGGAGTGCCCATGGAAATTGTCTTGAATAAGGAATCTCGGAGGAAAACACCGGTGATCGTGACCCTGAA  
AGAAAATGAAAGATTCTTTGGAGACAGTGCAGCAAGCATGGCGATTAAGAATCCAAAGGCTACGCTACGTTACTT  
CCAGCACCTCCTGGGGAAGCAGGCAGATAACCCCCATGTAGCTCTTTACCAGGCCCGCTTCCCGGAGCACGAGCT  
GACTTTTCGACCCACAGAGGCAGACTGTGCACTTTTACAGATCAGCTCGCAGCTGCAGTTCTCACCTGAGGAAGTGTT  
GGGCATGGTTCTCAATTATTCTCGTTCTCTAGCTGAAGATTTTGCAGAGCAGCCCATCAAGGATGCAGTGATCAC  
CGTGCCAGTCTTCTTCAACCAGGCCGAGCGCCGAGCTGTGCTGCAGGCTGCTCGTATGGCTGGCCTCAAAGTGCT  
GCAGCTCATCAATGACAACACCGCCACTGCCCTCAGCTATGGTGTCTTCCGCCGAAAGATATTAACACCACTGC  
CCAGAATATCATGTTCTATGACATGGGCTCAGGCAGCACCGTATGCACCATTGTGACCTACCAGATGGTGAAGAC  
TAAGGAAGCTGGGATGCAGCCACAGCTGCAGATCCGGGGAGTAGGATTTGACCGTACCCTGGGGGGCCTGGAGAT  
GGAGCTCCGGCTTCGAGAACGCCTGGCTGGGCTTTTCAATGAGCAGCGCAAGGGTCAGAGAGCAAAGGATGTGCG  
GGAGAACCCGCGTGCCATGGCCAAGCTGCTGCGTGAGGCTAATCGGCTCAAACCGTCCTCAGTGCCAACGCTGA  
CCACATGGCACAGATTGAAGGCCTGATGGATGATGTGGACTTCAAGGCAAAAGTGACTCGTGTGGAATTTGAGGA  
GTTGTGTGCAGACTTGTGTTGAGCGGGTGCTGGGCTGTACAGCAGGCCCTCCAGAGTGCCGAAATGAGTCTGGA  
TGAGATTGAGCAGGTGATCCTGGTGGGTGGGGCCACTCGGGTCCCAGAGTTCAGGAGGTGCTGCTGAAGGCCGT  
GGGCAAGGAGGAGCTGGGGAAGAATCAATGCAGATGAAGCAGCCGCCATGGGGGCAGTGTACCAGGCAGCTGC  
GCTCAGCAAAGCCTTTAAAGTGAAGCCATTTGTCTGTCGAGATGCAGTGGTCTACCCCATCTGGTGGAGTTTAC  
GAGGGAGGTGGAGGAGGAGCCTGGGATTACAGCCTGAAGCACAATAAACGGGTACTCTTCTCTCGGATGGGGCC  
CTACCCCTCAACGCAAAGTCATCACCTTTAACCGCTACAGCCATGATTTCAACTTCCACATCAACTACGGCGACCT  
GGGCTTCTCGGGCCTGAAGATCTTCGGGTATTTGGCTCCCAGAATCTGACCACAGTGAAGCTAAAAGGGGTGGG  
TGACAGCTTCAAGAAGTATCTGACTACGAGTCCAAGGGCATCAAGGCTCACTTCAACCTGGATGAGAGTGGCGT  
GCTCAGTCTAGACAGGCTGGAGTCTGTATTTGAGACACTGGTAGAGGACAGCGCAGAAGAGGAATCTACTCTCAC  
CAAACCTGGCAACACCATTTCAGCCTGTTTGGAGGCGGTACCACACCAGATGCCAAGGAGAATGGTACTGATAC  
TGTCCAGGAGGAAGAGGAGAGCCCTGCAGAGGGGAGCAAGGACGAGCCTGGGGAGCAGGTGGAGCTCAAGGAGGA  
AGCTGAGGCCCCAGTGGAGGATGGCTCTCAGCCCCACCCCTGAACCTAAGGGAGATGCAACCCCTGAGGGAGA  
AAAGGCCACAGAAAAAGAAAATGGGGACAAGTCTGAGGCCCAGAAACCAAGTGAGAAGGCAGAGGCAGGGCCTGA  
GGGCGTCGCTCCAGCCCCAGAGGGAGAGAAGAAGCAGAAGCCCCGCCAGGAAGCGGCCAATGGTAGAGGAGATCGG  
GGTGGAGCTGGTTGTTCTGGACCTGCCTGACTTGCCAGAGGATAAGCTGGCTCAGTCGGTGCAGAACTTCAGGA  
CTTGACACTCCGAGACCTGGAGAAGCAGGAACGGGAAAAAGCTGCCAACAGCTTGGAAGCGTTCATATTTGAGAC  
CCAGGACAAGCTGTACCAGCCCGAGTACCAGGAAGTGTCCACAGAGGAGCAGCGTGAGGAGATCTCTGGGAAGCT  
CAGCGCCGCATCCACCTGGCTGGAGGATGAGGGTGTGGAGCCACCACAGTGATGTTGAAGGAGAAGCTGGCTGA  
GCTGAGGAAGCTGTGCCAAGGGCTGTTTTTTCGGGTAGAGGAGCGCAAGAAGTGGCCCCAACGGCTGTCTGCCCT  
CGATAATCTCCTCAACCATTCCAGCATGTTTCTCAAGGGGGCCCGGCTCATCCCAGAGATGGACCAGATCTTCAC  
TGAGGTGGAGATGACAACGTTAGAGAAAGTCATCAATGAGACCTGGGCCTGGAAGAATGCAACTCTGGCCGAGCA  
GGCTAAGCTGCCCCGCCACAGAGAAGCCTGTGTTGCTCTCAAAAGACATTGAAGCTAAGATGATGGCCCTGGACCG  
AGAGGTGCAGTATCTGCTCAATAAGGCCAAGTTTACCAAGCCCCGGCCCCGGCCTAAGGACAAGAATGGGACCCG  
GGCAGAGCCACCCCTCAATGCCAGTGCCAGTGACCAGGGGGAGAAGGTTCATCCCTCCAGCAGGCCAGACTGAAGA  
TGCAGAGCCCATTTCAGAACCTGAGAAAGTAGAGACTGGATCCGAGCCAGGAGACACTGAGCCTTTGGAGTTAGG  
AGGTCTCTGGAGCAGAACCTGAACAGAAAGAACAATCGACAGGACAGAAGCGGCCTTTGAAGAACGACGAAC**TATA**  
**A**CCCCACCTCTGTTTTCCCATTCATCTCCACCCCTTCCCCACCACTTCTATTTATTTAACATCGAGGGTTG  
GGGGAGGGGTTGGTCTTGCCTCGGCTGGAGTTCCTTTCTCACCCCTGTGATTTGGAGGTGTGGAGAAGGGGAAG  
GGAGGGACAGCTCACTGGTTCCTTCTGCAGTACCTCTGTGGTTAAAAATGGAACTGTTCTCCTCCCCAGCCCCA  
CTCCTGTTCCTACCCATATAGGCCCTAAATTTGGGAAAAATCACTATTAATTTCTGAATCCTTTGCCTGTGGG  
TAGGAAGAGAATGGCTGCCAGTGGCTGATGGGTCCCGGTGATGGGAAGGGTATCAGGTTGCTGGGGAGTTTCCAC  
TCTTCTCTGGTGATTGTTCTTCCCTCCCTTCTCTCCACCATGCGATGAGCATCCTTTAGGCCAGTGTCTGC

**FIGURE 43B**

AGAGCCTCAGTTACCAGGTTTGGTTTCTGAGTGCCTATCTGTGCTCTTTCCCTCCCTCTGCGGGCTTCTCTTGCTC  
TGAGCCTCCCTTCCCCATTCCCATGCAGCTCCTTTCCCCCTGGGTTTCTTGGCTTCCTGCAGCAAATTGGGCAG  
TTCTCTGCCCCTTGCCATAAAGCCTGTACCTCTGGATTGGCGGAAGTAAATCTGGAAGGATTCTCACTCGTATTT  
CCCACCCCTAGTGGCCAGAGGAGGGAGGGGCACAGTGAAGAAGGGAGCCCACCACCTCTCCGAAGAGGAAAGCCA  
CGTAGAGTGGTTGGCATGGGGTGCCAGCATCGTGCAAGCTCTGTCATAATCTGCATCTTCCCAGCAGCCTGGTAC  
CCCAGGTTCCCTGTAACTCCCTGCCTCCTCCTCTCTTCTGCTGTTCTGCTCCTCCCAGACAGAGCCTTTCCCTCAC  
CCCCTGACCCCTGGGCTGACCAAAATGTGCTTTCTACTGTGAGTCCCTATCCCAAGATCCTGGGGAAAGGAGAG  
ACCATGGTGTGAATGTAGAGATGCCACCTCCCTCTCTCTGAGGCAGGCCTGTGGATGAAGGAGGAGGGTCAGGGC  
TGGCCTTCCTCTGTGCATCACTCTGCTAGGTTGGGGGCCCCGACCCACCATACTACGCCTAGGGAGCCCGTCC  
TCCAGTATTCCGTCTGTAGCAGGAGCTAGGGCTGCTGCCTCAGCTCCAAGACAAGAATGAACCTGGCTGTGTCAG  
TCATTTTGTCTTTTCCCTTTTTTTTTTTTTTTTGGCACATTGGCAGAGATGGGACCTAAGGGTCCCACCCCTCACCCCA  
CCCCACCTCTTCTGTATGTTTGAATTCTTTCAGTAGCTGTTGATGCTGGTTGGACAGGTTTGAGTCAAATTGTA  
CTTTGCTCCATTGTTAATTGAGAACTGTTTCAATAAAATATTCTTTTCTAC

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**FIGURE 44**

MADKVRQRPRRRVCWALVAVLLADLLALSDTLAVMSVDLGSESMKVAIVKPGVPMEIVLNKESRRKTPVIVTLK  
ENERFFGDSAASMAIKNPKATLRYFQHLLGKQADNPHVALYQARFPEHELTTFDPQRQTVHFQISSQLQFSPEEVL  
GMVLNYSRSLAEDFAEQPIKDAVITVPVFFNQAERRAVLQAARMAGLKVLQLINDNTATALSYGVFRRKDINTTA  
QNIMFYDMGSGSTVCTIVTYQMVKKEAGMQPQLQIRGVGFDRTLGGLEMELELRERLAGLFNEQRKGQRAKDVR  
ENPRAMAKLLREANRLKTVLSANADHMAQIEGLMDDVDFKAKVTRVEFEELCADLFEVPGVPVQQALQSAEMSLD  
EIEQVILVGGATRVPRVQEVLLKAVGKEELGKNINADEAAAMGAVYQAAALSKAFKVKPFVVRDAVVYPILVEFT  
REVEEPPGIHSLKHNRVLF SRMGYPQRKVITFNRYSHDFNFHINYGDLGFLGPEDLRVFGSQNLTTVKLKGVG  
DSFKKYPDYESKGIKAHFNLDSEGLSLDRVESVFETLVEDSAEEESTLTKLGNTISSLFGGGTTPDAKENGTD  
VQEEEESPAEGSKDEPGEQVELKEEAEAPVEDGSQPPPEPKGDATPEGEKATEKENGDKSEAQKPSAEAGPE  
GVAPAPEGEKKQKPARKRRMVEEIGVELVVLDPDLPEDKLAQSVQKLQDLTLRDLEKQEREKAANSLEAFIFET  
QDKLYQPEYQEVSTEEQREEISGKLSAASTWLEDEGVGATTVMLEKLAELRKLCQGLFFRVEERKKWPERLSAL  
DNLLNHSSMFLKGARLIPMDQIFTEVEMTTLEKVINETWAWKNATLAEQAKLPATEKPVLLSKDIEAKMMALDR  
EVQYLLNKAFTKPRPRPKDKNGTRAEPPLNASASDQGEKVIPPAGQTEDAEP ISEPEKVETGSEPGDTEPLELG  
GPGAEPQKEQSTGQKRPLKNDEL

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**FIGURE 45**

ATACACGTGCCATGTGCAGCATGAGGGGCTACCCGAGCCCGTCACCCTGAGATGGAAGCCGGCTTCCCAGCCCAC  
CATCCCCATCGTGGGCATCATTGCTGGCCTGGTTCTCCTTGGATCTGTGGTCTCTGGAGCTGTGGTTGCTGCTGT  
GATATGGAGGAAGAAGAGCTCAGGTGGAAGAGGGAGCTACTCTAAGGCTGAGTGGAGCGACAGTGCCAGGG  
GTCTGAGTCTCACAGCTTGTAAGCCTGAGACAGCTGCCCTGTGTGCGACTGAGATGCACAGCTGCCCTGTGTGC  
GACTGAGATGCAGGATTTCCCTCAGCCTCCCCTATGTGTCTTAGGGGACTCTGGCTTCTCTTTTTGCAAGGGCCT  
CTGAATCTGTCTGTGTCCCTGTTAGCACAATGTGAGGAGGTAGAGAAACAGTCCACCTCTGTGTCTACCATGACC  
CCCTTCCTCACACTGACCTGTGTTCCCTTCCCTGTTCTCTTTCTATTAAAAATAAGAACCTGGGCAGAGTGCGGC  
AGCTCATGCCTGTAATCCCAGCACTTAGGGAGGCCGAGGAGGGCAGATCACGAGGTCAGGAGATCGAAACCATCC  
TGGCTAACACGGTGAAACCCCGTCTCTACTAAAAAATACAAAAAATTAGCTGGGCGCAGAGGCACGGGCCTGTAG  
TCCCAGCTACTCAGGAGGCGGAGGCAGGAGAATGGCGTCAACCCGGGAGGCGGAGGTTGCAGTGAGCCAGGATTG  
TGCGACTGCACTCCAGCCTGGGTGACAGGGTGAAACGCCATCTCAAAAAATAAAAAATAAAAAATAAAAAAGAA  
CCTGGATCTCAATTTAATTTTTTCATATTCTTGCAATGAAATGGACTTGAGGAAGCTAAGATCATAGCTAGAAATA  
CAGATAATTCCACAGCACATCTCTAGCAAATTTAGCCTATTCTTCTCTAGCCTATTCTTACCACCTGTAAT  
CTTGACCATATACCTTGGAGTTGAATATTGTTTTCTACTGCTGTGGTTTGAATGTTCCCTCCAACACTCATGTT  
GAGACTTAATCCCTAATGTGGCAATACTGAAAGGTGGGGCCTTTGAGATGTGATTGGATCGTAAGGCTGTGCCTT  
CATTCTATGGGTTAATGGATTAATGGGTTATCACAGGAATGGGACTGGTGGCTTTATAAGAAGAGGAAAAGAGAAC  
TGAGCTAGCATGCCCAACCCACAGAGAGCCTCCACTAGAGTGATGCTAAGTGAAATGTGAGGTGCAGCTGCCAC  
AGAGGGCCCCCACCAGGGAAATGTCTAGTGTCTAGTGGATCCAGGCCACAGGAGAGAGTGCCTTGTGGAGCGCTG  
GGAGCAGGACCTGACCACCACCAGGACCCAGAAGTGTGGAGTCAGTGGCAGCATGCAGCGCCCCCTTGGGAAAG  
CTTTAGGCACCAGCCTGCAACCCATTGAGCAGCCACGTAGGCTCGACCCAGCAAAGCCACAGGCACGGGGCTAC  
CTGAGGCCTTGGGGGCCAATCCCTGCTCCAGTGTGTCCGTGAGGCAGCACACGAAGTCAAAGAGATTATCTCTT  
CCCACAGATACCTTTTCTCTCCCATGACCCTTTAACAGCATCTGCTTCATTCCCCTCACCTTCCCAGGCTGATCT  
GAGGTAACTTTGAAGTAAATAAAAGCTGTGTTTGAGCATC

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**FIGURE 46**

CCTCTCGGAGCTGGAAATGCAGCTATTGAGATCTTCGAATGCTGCGGAGCTGGAGGCGGAGGCAGCTGGGGAGGT  
CCGAGCGATGTGACCAGGCCGCCATCGCTCGTCTCTTCTCTCTCCTGCCGCCCTCCTGTGTGCGAAAATAACTTTT  
TTAGTCTAAAGAAAGAAAGACAAAAGTAGTCGTCCGCCCCCTCACGCCCTCTCTTCTCTCAGCCTTCCGCCCGGT  
GAGGAAGCCCCGGGTGGCTGCTCCGCCGTCCGGGCGCGCCGCCGAGCCCCAGCGCCCCGGGCGCCCCCGCAGC  
CCGCCCCC**ATGC**ATCCCTTCTACACCCGGGCCGCCACCATGATAGGCGAGATCGCCGCCCGCGTGTCTTCATCT  
CCAAGTTTCTCCGCACCAAGGGGCTGACGAGCGAGCGACAGCTGCAGACCTTCAGCCAGAGCCTGCAGGAGCTGC  
TGGCAGAACATTATAAACATCACTGGTTCCCAGAAAAGCCATGCAAGGGATCGGGTTACCGTTGTATTGCGATCA  
ACCATAAAATGGATCCTCTGATTGGACAGGCAGCACAGCGGATTGGACTGAGCAGTCAGGAGCTGTTCAAGGCTTC  
TCCCAAGTGAATCACACTCTGGGTTGACCCCTATGAAGTGTCTACAGAATTGGAGAGGATGGCTCCATCTGTG  
TGCTGTATGAAGCCTCACCAGCAGGAGGTAGCACTCAAAACAGCACCAACGTGCAAATGGTAGACAGCCGAATCA  
GCTGTAAGGAGGAACTTCTCTTGGGCAGAACGAGCCCTTCCAAAAACTACAATATGATGACTGTATCAGGT**TAAG**  
ATATAGTCTGTGGATGGATCATCTGATGATGATCCATAAAATTTGATTTTGGCTTTGGGTGGGCTCCTCTTGGGGA  
TGGATTATGGAATTTAAACCATGTACAGCTGTGAAGATCTGGCACAAGATAGAATGGTAAAAAAAAAAAAAAT  
TTTAAGTGACAGTGCCATAGTTTGGACAGTACCTTTCAATGATTAATTTTAATAGCCTGTGAGTCCAAGTAAATG  
ATCACTTTATTTGCTAGGGAGGGAAGTCCTAGGGTGGTTTCAGTTTCTCCAGACATACCTAAATTTTACATCA  
ATCCTTTTAAAGAAAATCTGTATTTCAAAGAATCTTCTCTGCAGTAAATCTCGCAGGGGAATTTGCACTATTAC  
ACTTGAAAGTTGTTATTGTTAACCTTTTCGGCAGCTTTTAATAGGAAAGTTAAACGTTTTAAACATGGTAGTACT  
GGAAATTTTACAAGACTTTTACCTAGCACTTAAATATGTATAAATGTACATAAAGACAACTAGTAAGCATGACC  
TGGGGAAATGGTCAGACCTTGTATTGTGTTTTTGGCCTTGAAAGTAGCAAGTGACCAGAATCTGCCATGGCAACA  
GGCTTTAAAAAGACCCTTAAAAAGACACTGTCTCAACTGTGGTGTTAGCACCAGCCAGCTCTCTGTACATTTGC  
TAGCTTGTAGTTTCTAAGACTGAGTAACTTCTTATTTTTAGAAAGTGGAGGTCTGGTTTGTAACCTTCTTGT  
ACTTAATTGGGTAAAGTCTTTTCCACAAACCACCATCTATTTTGTGAACCTTGTTAGTCATCTTTATTTGGTA  
AATTATGAAGTGGTGTAATTTGTACAGTTCATGTATATTGATTGTGGCAAAGTTGTACAGATTTCTATATTTTG  
GATGAGAAATTTTCTTCTCTATAATAAATCGTTTCTTATCTTGGCATTTTAAACC

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**FIGURE 47**

MHPFYTRAATMIGEIAAAVSFISKFLRTKGLTSEQLQTFSSQLQELLAEHYKHHWFPEKPCKGSGYRCIRINHK  
MDPLIGQAAQRIGLSSQELFRLLPSELTWVDPYEVSYRIGEDGSICVLYEASPAGGSTQNSTNVQMVDSTRISK  
EELLGRTSPSKNYNMMTVSG



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**FIGURE 48**

GGCACGAGGACCGACCGCATTGCGGCTTGGTTTTCTACCCAGTGTCATGTGGCAGGAGCGGTGAGATCACTGCCT  
CACGGCGATCCTGGACTGACGGTCACGACTGCCTACCCTCTAACCCGTGTTCTGAGCTGCCCTTGCCACACACC  
CCAAACCTGTGTGCAGGATCCGCCTCCATGGAGCTACAGCCTCCTGAAGCCTCGATCGCCGTCGTGTCGATTCCG  
CGCCAGTTGCCTGGCTCACATTTCGGAGGCTGGTGTCCAGGGTCTCAGCGCGGGGGACGACTCAGAGTTGGGGTCT  
CACTGTGTTGCCCAGACTGGTCTCGAACTCTTGGCCTCAGGTGATCCTCTTCCCTCAGCTTCCAGAAATGCCGAG  
ATGATAGAGACGGGGTCTGACTGTGTTACCCAGGCTGGTCTTCAACTCTTGGCCTCAAGTGATCCTCCTGCCTTA  
GCTTCCAAGAATGCTGAGGTTACAGGCACCAATGAGCCAGGACACCGAGGTGGATATGAAGGAGGTGGAGCTGAAT  
GAGTTAGAGCCCGAGAAGCAGCCGATGAACGCGGCGTCTGGGGCGGCCATGTCCCTGGCGGGAGCCGAGAAGAAT  
GGTCTGGTGAAGATCAAGGTGGCGGAAGACGAGGCGGAGGCGGCAGCCGCGGCTAAGTTACAGGGCCTGTCCAAG  
GAGGAGCTGCTGAAGGTGGCAGGCAGCCCCGGCTGGGTACGCACCCGCTGGGCACTGCTGCTGCTCTTCTGGCTC  
GGCTGGCTCGGCATGCTTGCTGGTGCCGTGGTCATAATCGTGCGAGCGCCGCTTGTGCGAGCTACCGGCGCAG  
AAGTGGTGGCACACGGGCGCCCTCTACCGCATCGGCGACCTTCAGGCCTTCCAGGGCCACGGCGCGGGCAACCTG  
GCGGGTCTGAAGGGGCGTCTCGATTACCTGAGCTCTCTGAAGGTGAAGGGCCTTGTGCTGGGTCCAATTACAAG  
AACCAGAAGGATGATGTCGCTCAGACTGACTTGCTGCAGATCGACCCCAATTTTGGCTCCAAGGAAGATTTTGAC  
AGTCTCTTGCAATCGGCTAAAAAAGAGCATCCGTGTCAATTCTGGACCTTACTCCCAACTACCGGGGTGAGAAC  
TCGTGGTTCTCCACTCAGGTTGACACTGTGGCCACCAAGGTGAAGGATGCTCTGGAGTTTTGGCTGCAAGCTGGC  
GTGGATGGGTTCAGGTTTCGGGACATAGAGAATCTGAAGGATGCATCCTCATTCTTGGCTGAGTGGCAAAATATC  
ACCAAGGGCTTCAGTGAAGACAGGCTCTTGATTGCGGGGACTAACTCCTCCGACCTTCAGCAGATCCTGAGCCTA  
CTCGAATCCAACAAAGACTTGCTGTTGACTAGCTCATACTGTCTGATTCTGGTTCTACTGGGGAGCATACAAAA  
TCCCTAGTCACACAGTATTTGAATGCCACTGGCAATCGCTGGTGCAGCTGGAGTTTGTCTCAGGCAAGGCTCCTG  
ACTTCTTCTTGCCGGCTCAACTTCTCCGACTCTACCAGCTGATGCTCTTACCCTGCCAGGGACCCCTGTTTTT  
AGCTACGGGGATGAGATTGGCCTGGATGCAGCTGCCCTTCCTGGACAGCCTATGGAGGCTCCAGTCATGCTGTGG  
GATGAGTCCAGCTTCCCTGACATCCAGGGGCTGTAAGTGCCAACATGACTGTGAAGGGCCAGAGTGAAGACCTT  
GGCTCCCTCCTTTCTTGTTCGGCGGCTGAGTGACCAGCGGAGTAAGGAGCGCTCCCTACTGCATGGGGACTTC  
CACGCGTTCTCCGCTGGGCCTGGACTCTTCTCCTATATCCGCCACTGGGACCAGAATGAGCGTTTTCTGGTAGTG  
CTTAACTTTGGGGATGTGGGCCTCTCGGCTGGACTGCAGGCCTCCGACCTGCCTGCCAGCGCCAGCCTGCCAGCC  
AAGGCTGACCTCCTGCTCAGCACCCAGCCAGGCCGTGAGGAGGGCTCCCTCTTGAGCTGGAACGCCTGAAACTG  
GAGCCTCACGAAGGGCTGCTGCTCCGCTTCCCTACGCGGCCTGACTTCAGCCTGACATGGACCCACTACCCTTC  
TCCTTTCTTCCAGGCCCTTTGGCTTCTGATTTTTCTCTTTTTTAAAAACAAACAAACAACTGTTGCAAAAAA  
AAAAAAAAAAAA

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**FIGURE 49**

MSQDTEVDMKEVELNELEPEKQPMNAASGAAMSLAGAEKNGLVKIKVAEDEAEAAAAAKFTGLSKEELLKVAGSP  
GWVTRWALLLLFWLGWLGMLAGAVVIIVRAPRCRELPAQKWWHTGALYRIGDLQAFQGHGAGNLAGLKGRLDYL  
SSLKVKGLVLGPIHKNQKDDVAQTDLLQIDPNFGSKEDFDSLLQSAKKKSIRVILDLTTPNYRGENSWFSTQVDTV  
ATKVKDALEFWLQAGVDGFQVRDIENLKDASSFLAEWQNITKGFSEDRLLIAGTNSSDLQQILSLLESNKDLLLLT  
SSYLSDSGSTGEHTKSLVTQYLNATGNRWCSWSLSQARLLTSFLPAQLLRLYQLMLFTLPGTPVFSYGDEIGLDA  
AALPGQPMEAPVMLWDESSFPDIPGAVSANMTVKGQSEDPGSLLSLFRRLSDQRSKERSLLHGDFHAFSAGPGLF  
SYIRHWDQNERFLVVLNFGDVGLSAGLQASDLPASASLPKADLLLSTQPGREEGSPLELERLKLEPHEGLLLRF  
PYAA

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**FIGURE 50**

GTCCGTACTGCAGAGCCGCTGCCGGAGGGTCGTTTTAAAGGGCCGCGTTGCCGCCCCCTCGGCCCCGCCATGCTGC  
TATCCGTGCCGCTGCTGCTCGGCCCTCCTCGGCCTGGCCGTGCCCGAGCCCCGCGTCTACTTCAAGGAGCAGTTTC  
TGGACGGAGACGGGTGGACTTCCCGCTGGATCGAATCCAAACACAAGTCAGATTTTGGCAAATTCGTTCTCAGTT  
CCGGCAAGTTCTACGGTGACGAGGAGAAAGATAAAGGTTTGCAGACAAGCCAGGATGCACGCTTTTATGCTCTGT  
CGGCCAGTTTCGAGCCTTTCAGCAACAAAGGCCAGACGCTGGTGGTGCAGTTTCACGGTGAAACATGAGCAGAACA  
TCGACTGTGGGGGCGGCTATGTGAAGCTGTTTCTAATAGTTTGGACCAGACAGACATGCACGGAGACTCAGAAT  
ACAACATCATGTTTGGTCCCGACATCTGTGGCCCTGGCACCAAGAAGGTTTCATGTCATCTTCAACTACAAGGGCA  
AGAACGTGCTGATCAACAAGGACATCCGTTGCAAGGATGATGAGTTTACACACCTGTACACACTGATTGTGCGGC  
CAGACAACACCTATGAGGTGAAGATTGACAACAGCCAGGTGGAGTCCGGCTCCTTGGAAAGACGATTGGGACTTCC  
TGCCACCCAAGAAGATAAAGGATCCTGATGCTTCAAAACCGGAAGACTGGGATGAGCGGGCCAAGATCGATGATC  
CCACAGACTCCAAGCCTGAGGACTGGGACAAGCCCCGAGCATATCCCTGACCCTGATGCTAAGAAGCCCCGAGGACT  
GGGATGAAGAGATGGACGGAGAGTGGGAACCCCCAGTGATTTCAGAACCTGAGTACAAGGGTGAGTGGAAGCCCC  
GGCAGATCGACAACCCAGATTACAAGGGCACTTGGATCCACCCAGAAAATTGACAACCCCGAGTATTCTCCCGATC  
CCAGTATCTATGCCTATGATAACTTTGGCGTGCTGGGCCTGGACCTCTGGCAGGTCAAGTCTGGCACCATCTTTG  
ACAACCTTCCTCATCACCAACGATGAGGCATACGCTGAGGAGTTTGGCAACGAGACGTGGGGCGTAACAAAGGCAG  
CAGAGAAACAAATGAAGGACAAACAGGACGAGGAGCAGAGGCTTAAGGAGGAGGAAGAAGACAAGAAACGCAAAG  
AGGAGGAGGAGGCAGAGGACAAGGAGGATGATGAGGACAAAGATGAGGATGAGGAGGATGAGGAGGACAAGGAGG  
AAGATGAGGAGGAAGATGTCCCCGGCCAGGCCAAGGACGAGCTGTAGAGAGGCCTGCCTCCAGGGCTGGACTGAG  
GCCTGAGCGCTCCTGCCGCAGAGCTTGCCGCGCCAATAATGTCTCTGTGAGACTCGAGAACTTTTATTTTTTTC  
CAGGCTGGTTTCGGATTGGGGTGGATTTTGGTTTTTGTTCCTCCTCCACTCTCCCCACCCCTCCCCGCCCTT  
TTTTTTTTTTTTTTTAAACTGGTATTTTATCCTTTGATTCTCCTTCAGCCCTCACCCCTGGTTCTCATCTTTCTT  
GATCAACATCTTTTCTTGCTCTGTGCCCTTCTCTCATCTCTTAGCTCCCCTCCAACCTGGGGGGCAGTGGTGT  
GGAGAAGCCACAGGCCTGAGATTTTCATCTGCTCTCCTTCTGAGCCCAGAGGAGGGCAGCAGAAGGGGGTGGTG  
TCTCAACCCCCCAGCACTGAGGAAGAACGGGGCTCTTCTCATTTTCAACCTCCCTTTCTCCCTGCCCCAGGA  
CTGGGCCACTTCTGGGTGGGGCAGTGGGTCCCAGATTGGCTCACACTGAGAATGTAAGAACTACAAACAAATTT  
CTATTAAATTAAATTTTGTGTCTC

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**FIGURE 51**

MLLSVPLLLGLLGLAVAEPVYFKEQFLDGDGWTSRWIESKHKSDFGKFVLSSGKFYGDDEEKDKGLQTSQDARFY  
ALSASFEPFSNKGQTLVVQFTVKHEQNIDCGGGYVKLFPNSLDQTMHGDSEYNIMFGPDICGPGTKKVHVIFNY  
KGKNVLINKDIRCKDDEFTHLYTLIVRPDNTYEVKIDNSQVESGSLEDDWDFLPPKKIKDPDASKPEDWDERAKI  
DDPTDSKPEDWDKPEHIPDPDAKKPEDWDEEMDGEWEPPVIQNPEYKGEWKPRQIDNPDYKGTWIHPEIDNPEYS  
PDPSIYAYDNFGVLGLDLWQVKSGETFDNFLITNDEAYAEFFGNETWGVTKAAEKQMKDKQDEEQRLKEEEEDKK  
RKEEEEAEDKEDDEKDEDEDEEDKEEDEEEDVPGQAKDEL

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**FIGURE 52A**

AGAGCGAGCAGGGGAGAGCGAGACCAGTTTTTAAGGGGAGGACCGGTGCGAGTGAGGCAGCCCCGAGGCTCTGCTC  
GCCCACCACCCAATCCTCGCCTCCCTTCTGCTCCACCTTCTCTCTCTGCCCCTACCTCTCCCCGAAAACCCCTT  
ATTTAGCCAAAGGAAGGAGGTGAGGGGAACGCTCTCCCTCCCTTCCAAAAACAAAAACAGAAAAACCCCTTTT  
CCAGGCCGGGGAAGCAGGAGGGAGAGGGGCCGCCGGGTGGCC**ATGG**AGCTGCTGTGCCACGAGGTGGACCCGG  
TCCGCAGGGCCGTGCGGGACCGCAACCTGCTCCGAGACGACCGCTCCTGCAGAACCTGCTCACCATCGAGGAGC  
GCTACCTTCCGCAGTGCTCCTACTTCAAGTGCCTGCAGAAGGACATCCAACCTACATGCGCAGAATGGTGGCCA  
CCTGGATGCTGGAGGTCTGTGAGGAACAGAAGTGCAGAAGAAGAGGTCTTCCCTCTGGCCATGAATTACCTGGACC  
GTTTCTTGGCTGGGGTCCCGACTCCGAAGTCCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTCTTGGCCTCCA  
AACTCAAAGAGACCAGCCCGCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACCTCCATCAAGCCTCAGGAGC  
TGCTGGAGTGGGAACCTGGTGGTGTGCGGGAAGTTGAAGTGGAACTGGCAGCTGTCACTCCTCATGACTTCATTG  
AGCACATCTTGCGCAAGCTGCCCCAGCAGCGGGAGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG  
CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAAGTGTGGGAGCAGCCA  
TCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA  
CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCCTGCAGCAGT  
ACCGTCAGGACCAACGTGACGGATCCAAGTCCGAGGATGAACTGGACCAAGCCAGCACCCCTACAGACGTGCGGG  
ATATCGACCTG**TGAG**AGGATGCCAGTTGGGCCGAAAGAGAGAGACGCGTCCATAATCTGGTCTCTTCTTTCTTG  
TTGTTTTTGTCTTTGTGTTTTAGGGTGAAACTTAAAAAAAATTCTGCCCCACCTAGATCATATTTAAAGAT  
CTTTTAGAAGTGAGAGAAAAAGGTCTACGAAAACGGAATAATAAAAAGCATTGGTGCCTATTTGAAGTACAGC  
ATAAGGGAATCCCTTGATATGCGAACAGTTATTGTTTGATTATGTAAAAGTAATAGTAAAATGCTTACAGGAAA  
ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAAATTAGAGGAGACTTTTTTTTTTTCATGTT  
ATGAGCTAGCACATACACCCCTTGATGATAATTTCAAGGAACTGTGTACGCCATTTATGGCATGATTAGATTG  
CAAAGCAATGAACTCAAGAAGGAATTGAAATAAGGAGGGACATGATGGGGAAGGAGTACAAAACAATCTCTCAAC  
ATGATTGAACCATTTGGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGTAGTTGGAT  
CTCTACATTAATGTCTCTTGCTGTCTACAGTAGCTGTACCTAAAAAAGATGTTTTATTTTGGCAGTTGGACA  
CAGGTGATTGGCTCCTGGGTTTCATGTTCTGTGACATCCTGCTTCTTCTTCCAAATGCAGTTCATTGCAGACACC  
ACCATATTGCTATCTAATGGGGAAATGTAGCTATGGGCCATAACCAAAACTCACATGAAACGGAGGCAGATGGAG  
ACCAAGGGTGGGATCCAGAATGGAGTCTTTTCTGTTATTGTATTTAAAGGGTAATGTGGCCTTGGCATTTCCTC  
TTAGAAAAAACTAATTTTTTGGTGCTGATTGGCATGTCTGGTTACAGTTTAGCATTGTTATAAACCATTCATT  
CGAAAAGCACTTTGAAAAATTGTTCCCGAGCGATAGATGGGATGGTTTATGCAAGTCATGCTGAATACTCCTCCC  
CTCTTCTCTTTTGGCCCCCTCCCTTCCCTGCCCCAGTCTGGGTTACTCTTCGCTTCTGGTATCTGGCGTTCTTTGG  
TACACAGTTCTGGTGTTTCTACAGGACTCAAGAGACACCCCTTCCCTGCTGACATTCCCATCACAACATTCTCA  
GACAAGCCTGTAAACTAAAATCTGTTACCATCTGATGGCACAGAAGGATCTTAATTCCCATCTCTATACTTCTC  
CTTTGGACATGGAAAGAAAAGTTATTGCTGGTGCAAAGATAGATGGCTGAACATCAGGGTGTGGCATTTTGTTCC  
CTTTCCGTTTTTTTTTTTTTTTATTGTTGTTGTTAATTTTATTGCAAAGTTGTATTACGCGTACTTGAATTTTC  
TTCTCTCCACTTCTTAGAGGCATTGAGTTAGCAAAGAGGTTGGAGCAACAACCTTTTTTTTTTTTTTGCACAA  
TTGTAATTGACAGGTAATGAAGCTATTTGTTAAAATATTTGCCTTTTTTAAGTAAAAAAGAAAAATCAGAACAGGG  
CTATTTGAAGAATTATTTTATACACAGATTCTGCCTTGTTTCATAGTATGAGGGTTGAAGACGGAAAAACAATCTA  
AGGGTCTCTCATTTTTTTTAAATTTGTTTTGTTTTCAGTTTGGTTTTTTTTTTTTTTTGGCGTGCTAAGAAGCTAAAG  
TCATCCATCCTTATTCACGTTGACAGTACCTAGCTGTAATGTTTACAGAGTGTGCTGCTATTTTATAAACATTT  
TTATAATATATTATTTTACTGCTTAAATTTCCAAGTCTGAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGA  
AAAGCCCTTCCGTAGTTTGTGTTTTCTTCTGGTAGCATATTCATGGTTGTTTTTTTTTTTTTCTTTTTTGGTTTTTTGG  
TTTTTTTTTTTTTCTCTGATCACATTCTTCAAAGACGGAGTATTCTTTACCTCAGGTTTACTGGACAAAATCAAT  
AACTACAAAAGGCAATGATTACGCTTTTGTGTTTTCATAATACCTCACAACCGTACAGTTTCTGCTTGGGAGCCCA  
TTCGCATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGGCGGTCTCACTCC  
CAGGGACCTTTTTGGTCATGGAGGCCATCGGGCTCCAGTTAGACCCTGGTATCCTCATCATGATGGAAAAATA  
CATTGAACCAAGGGATCCTCCCTCCCTTCAAGGCAGACGTTTCACTACAAACATTTATGCGGTAGGCTCAGATGT  
CGTAATTTGCACTTAGGTACCAGGTGTCAGGAAACAGACTAAAAAGAATTCCACCAGGCTGTTTGGAGATCCTCA  
TCTTGGAGCTTTTTCAAAGCGGGGCTTCATCTGCAAAGGGCCCTTTCATCTTGAAGTTTTTCCCTCCGTCTTT

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**FIGURE 52B**

CCCCTCCCCTGGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCCTAGGTCTGAATCTGCGAGTAGAT  
GAACCTGCAGCAAGCAGCGTTTATGGTGCTTCCTTCTCCCTCCTCTGTCTCAAACCTGCGCAGGCAAGCACTATGC  
AAGCCCAGGCCCTCTGCTGAGCGGTACTAAACGGTCGGGTTTTCAATCACACTGAATTGGCAGGATAAGAAAAAT  
AGGTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTCTACAGAGGTGAAATTCAGATG  
AGTCAGTCTCTTGGGAAGTGTGTTTAGAAGGGTTCAGGACTTTGTGAGTTAGCATGACCCTAAAAATCTAGGGGA  
TTTCTGGTGGGACAATGGGTGGTGAATTTTGAAGTTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCC  
AGAGTTTTCTCAAGAGCCAGCTTTGCTCAGCACACTCTCCTGGGCCCCAAGGAGTCCCACGGAATGGGGAAAGTG  
GGAACCTGGAGTTCTTGGGAATCTTGGAGCCTAAAGAGAAACCGAGGTGCAAATTCATTTCATGGTGACTGACC  
CTTGAGCTTAAACAGAAGCAGCAAATGAAAGAACCGGACAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTT  
ACAGTCTGTAACCTTTCCACTCTTCTGTAGTCCCGAGGCCCTGGGTCTTCTAGCTTTTCTCTTTCCCATCCTT  
GGGGCCTTGTGTGATGATGGGTGTGGGGCTGCCGATGGGAAAGTCGGGGGTGTTAGGCTTTTCTGCCTGCTCCT  
GCTTAAACACAAGAAGGAATCCTGGATTTTGCCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTGTTC  
GAGGAGCTCTCCCCCTTGGATTTGAACTTGCTCTTTTTGTTGTTGTTGTTCTTTCTCTTTTCTTTACCTCCC  
ACTAAAGGGGTTCCAAATTATCCTGGTCTTTTTCTACCTTGTTGTGTTTCTATCTCGTCTTTACTTCCATCTGTT  
TGTTTTTTTTCTCCATCAGTGGGGGCCGAGTTGTTCCCCCAGCCTGCCAAATTTTGATCCTTCCCCCTCTTTTGGCC  
AAATCCTAGGGGGAAGAAATCCTAGTATGCCAAAAATATATGCTAAGCATAATTAAACTCCATGCGGGTCCATAA  
CAGCCAAGAAGCCTGCAGGAGAAAGCCAAGGGCAGTTCCTCCGCAGAACACCCCATGCGTGCTGAGAGGCGAGC  
TCCTTGAAGAAGGGGCTGTTCTTCCAGGAGGCCTTATTTGAACTGCCTCAGGACCCCACTGGAGAGCACAGCAT  
GCCTTACTACTGGGTATCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCA  
GGGGCACACATGGCTTAAGTGACAAAGCCAGAGGAGAAGACAACCCTGACAGCATCACGCTGCATCCCATTGCTA  
GCAGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCAGTCTAGCACCTCTAGGGCCTCTCCAGACTGTGC  
CCTGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAAT  
TTTCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGACCTTATGTATGTAAATAATTGA  
TTTTCTAGTTCAAGAAGATAATATTGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGAGTAAGCCAG  
TTGGCTTCTAAGCCAAAAGGATTCTCTTTGTTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAAGGG  
AAATTAATGCTGAGATGATAAAGTCCCCCTAAGCCAACAAACCCTCTGTAGCTATAGAATGAGTGCAGGTTTCTA  
TTGGTGTGGACTCAGAGCAATTTACAAGAGCTGTTTCATGCAGCCATCCATTTGTGCAAAATAGGGTAAGAAGATT  
CAAGAGGATATTTATTACTTCCTCATAACCACATGGCTTTTGATGATTCTGGATTCTAAACAACCCAGAATGGTCA  
TTTCAGGCACAACGATACTACATTTCGTGTGTGTCTGCTTTTTAACTTGGCTGGGCTATCAGACCCATTCTCGGC  
TCAGGTTTTGAGAAGCCATCAGCAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCCTGCAGCC  
TACTTTGGGGAAATAAAGTGCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTTGACAGGTGCCTGTCCT  
TGAAAAACAAAGTTTCTATTTTTTATTTTTAATTGGTTTTAGTTCTTAACTGCTGGCCAACTCTTACATCCCCAGCA  
AATCATCGGGCATTGGATTTTTTCCATTATGTTTCATCACCCCTTATATCATGTACCTCAGATCTCTCTCTCTC  
CTCTCTCTCAGTTATATAGTTTCTTGTCTTGGACTTTTTTTTTCTTTTCTTTTTCTTTTTTTTTTGGCTTAAAA  
CAAGTGTGATGCCATATCAAGTCCATGTTATCTCTCACAGTGTACTCTATAAGAGGTGTGGGTGTCTGTTGGT  
CAGGATGTTAGAAAGTGCTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAAATG  
TTGTATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTAAGAGGTCTTATCTGTTTCAGTGTTAAGTGAT  
TAAAAAAATAATAACCTGTTTTCTGACTAGTTTAAAGATGGATTTGAAAATGGTTTTGAATGCAATTAGGTTAT  
GCTATTTGGACAATAAACTCACCTTGACCT

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**FIGURE 53**

MELLCHEVDPVRRAVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEE  
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWELVVLGKLKWN  
LAAVTPHDFIEHILRKLPQQREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSVGAAICGLQQDEEVSSLTC  
DALTELLAKITNTDCLKACQEQIEAVLLNSLQQYRQDQRDGSKSEDELDQASTPTDVRDIDL

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**FIGURE 54A**

AGAGCGAGCAGGGGAGAGCGAGACCAGTTTTAAAGGGAGGACCGGTGCGAGTGAGGCAGCCCCGAGGCTCTGCTC  
GCCCACCACCCAATCCTCGCCTCCCTTCTGCTCCACCTTCTCTCTCTGCCCCTACCTCTCCCCGAAAACCCCTT  
ATTTAGCCAAAGGAAGGAGGTGAGGGGAACGCTCTCCCCTCCCCTTCCAAAAAACAAAAACAGAAAAACCCCTTTT  
CCAGGCCGGGGAAAGCAGGAGGGAGAGGGGCCGCCGGGCTGGCC**ATGG**AGCTGCTGTGCCACGAGGTGGACCCGG  
TCCGCAGGGCCGTGCGGGACCGCAACCTGCTCCGAGACGACCGCTCCTGCAGAACCTGCTCACCATCGAGGAGC  
GCTACCTTCCGCAGTGCTCCTACTTCAAGTGCCTGCAGAAGGACATCCAACCTACATGCGCAGAATGGTGGCCA  
CCTGGATGCTGGAGGTCTGTGAGGAACAGAAGTGCAGAAGAAGAGGTCTTCCCTCTGGCCATGAATTACCTGGACC  
GTTTCTTGGCTGGGGTCCCGACTCCGAAGTCCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTCTGGCCTCCA  
AACTCAAAGAGACCAGCCCGCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACCTCCATCAAGCCTCAGGAGC  
TGCTGGAGTGGAAGTGGTGGTGTGGGGAAGTTGAAGTGGAACCTGGCAGCTGTCACTCCTCATGACTTCATTG  
AGCACATCTTGCGCAAGCTGCCCCAGCAGCGGGAGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG  
CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCCA  
TCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA  
CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCCTGCAGCAGT  
ACCGTCAGGACCAACGTGACGGATCCAAGTCGGAGGATGAACTGGACCAAGCCAGCACCCCTACAGACGTGCGGG  
ATATCGACCTG**TGA**AGGATGCCAGTTGGGCCGAAAGAGAGAGACCGCTCCATAATCTGGTCTCTTCTTTCTGG  
TTGTTTTTGTCTTTGTGTTTTAGGGTGAAACTTAAAAAAAATTTCTGCCCCACCTAGATCATATTTAAAGAT  
CTTTTAGAAGTGAGAGAAAAAGGTCTACGAAAACGGAATAATAAAAAGCATTGGTGCCTATTTGAAGTACAGC  
ATAAGGGAATCCCTTGATATGCGAACAGTTATTGTTTGATTATGTAAGTAATAGTAAATGCTTACAGGAAA  
ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAAATTAGAGGAGACTTTTTTTTTTTCATGTT  
ATGAGCTAGCACATACACCCCTTGTAGTATAATTTCAAGGAAGTGTGTACGCCATTTATGGCATGATTAGATTG  
CAAAGCAATGAACTCAAGAAGGAATTGAAATAAGGAGGGACATGATGGGGAAGGAGTACAAAACAATCTCTCAAC  
ATGATTGAACCATTTGGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGTAGTTGGAT  
CTCTACATTAATGTCTCTTGCTGTCTACAGTAGCTGTACCTAAAAAAGATGTTTTATTTTGCCAGTTGGACA  
CAGGTGATTGGCTCCTGGGTTTCATGTTCTGTGACATCCTGCTTCTTCTTCCAAATGCAGTTCATTGCAGACACC  
ACCATATTGCTATCTAATGGGGAAATGTAGCTATGGGCCATAACCAAAACTCACATGAAACGGAGGCAGATGGAG  
ACCAAGGGTGGGATCCAGAATGGAGTCTTTTCTGTTATTGTATTTAAAGGGTAATGTGGCCTTGGCATTCTTCTC  
TTAGAAAAAACTAATTTTTTGGTGCTGATTGGCATGTCTGGTTACAGTTTAGCATTGTTATAAACCATTCATT  
CGAAAAGCACTTTGAAAAATTTTCCCGAGCGATAGATGGGATGGTTTATGCAAGTCATGCTGAATACTCCTCCC  
CTCTTCTCTTTTGGCCCCCTCCCTTCCCTGCCCCAGTCTGGGTTACTCTTCGCTTCTGGTATCTGGCGTTCTTTGG  
TACACAGTTCTGGTGTTCTTACCAGGACTCAAGAGACACCCCTTCCCTGCTGACATTCCTCATCACAACATTCTCA  
GACAAGCCTGTAACTAAAATCTGTTACCATTCTGATGGCACAGAAGGATCTTAATTCCCATCTCTATACTTCTC  
CTTTGGACATGGAAAGAAAGTTATTGCTGGTGCAAGATAGATGGCTGAACATCAGGGTGTGGCATTTTGTTC  
CTTTTCCGTTTTTTTTTTTTTATTGTTGTTGTTAATTTTATTGCAAAGTTGTATTACGCGTACTTGAATTTTTC  
TTCTCTCCACTTCTTAGAGGCATTCAGTTAGCAAAGAGGTTGGAGCAACAACCTTTTTTTTTTTTTTGCACAA  
TTGTAATTGACAGGTAATGAAGCTATTTGTTAAATATTTGCCTTTTTAAGTAAAAAAGAAAAATCAGAACAGGG  
CTATTTGAAGAATTATTTTATACACAGATTCTGCCTTGTTTCATAGTATGAGGGTTGAAGACGGAAAAACAATCTA  
AGGGTCTCTCATTTTTTTAATTTTGTGTTGTTTTCAGTTTGGTTTTTTTTTTTTTTTGGCGTGCTAAGAAGCTAAAG  
TCATCCATCCTTATTCACGTTGACAGTACCTAGCTGTAATGTTTCACAGAGTGTGCTGCTATTTTATAAACATTT  
TTATAATATATTATTTTACTGCTTAAATTCGAAGTCTGAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGA  
AAAGCCCTTCCGTAGTTTGTGTTTCTTCTGGTAGCATATTCATGGTTGTTTTTTTTTTTCTTTTTTGGTTTTTTGG  
TTTTTTTTTTTTTCTCTGATCACATTCTTCAAAGACGGAGTATTCTTTACCTCAGGTTTACTGGACAAAATCAAT  
AACTACAAAAGGCAATGATTCACGCTTTTGTGTTTATAATACCTCACAAACCGTACAGTTTCTGCTTGGGAGCCCA  
TTCGCATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGGCGGTCTCACTCC  
CAGGGACCTTTTTGGTCATGGAGGCCATCGGGCTCCCAGTTAGACCTGGTATCCTCATCATGATGGAAAAAATA  
CATTGAACCAAGGGATCCTCCCTCCCTTCAAGGCAGACGTTTCAAGTACAAACATTTATGCGGTAGGCTCAGATGT  
CGTAATTTGCACTTAGGTACCAGGTGTCAGGAAACAGACTAAAAAGAATTCCACCAGGCTGTTTGGAGATCCTCA  
TCTTGGAGCTTTTTCAAAGCGGGGCTTCATCTGCAAAGGGCCCTTCATCTTGAAGTTTTTCCCTCCGTCTTT



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**FIGURE 54B**

CCCCCTCCCCTGGCATGGACACCTTGTGTTTtaggatcatctctgcaggtttcctaggtctgaatctgCGAGTAGAT  
GAACCTGCAGCAAGCAGCGTTTATGGTGCTTCCTTCTCCCTCCTCTGTCTCAAACtGCGCAGGCAAGCACTATGC  
AAGCCCAGGCCCTCTGCTGAGCGGTACTAAACGGTCGGGTTTTCAATCACACTGAATTGGCAGGATAAGAAAAAT  
AGGTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTCTACAGAGGTGAAATTCCAGATG  
AGTCAGTCTCTTGGGAAGTGTGTTTAGAAGGGTTCAGGACTTTGTGAGTTAGCATGACCCTAAAATTCTAGGGGA  
TTTCTGGTGGGACAATGGGTGGTGAATTTTGAAGTTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCC  
AGAGTTTTCTCAAGAGCCAGCTTTGCTCAGCACACTCTCCTGGGCCCAAGGAGTCCCACGGAATGGGGAAAGTG  
GGAACCCTGGAGTTCTTGGGAATCTTGGAGCCTAAAGAGAAACCGAGGTGCAAATTCATTCATGGTGACTGACC  
CTTGAGCTTAAACAGAAGCAGCAAATGAAAGAACC GGACAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTT  
ACAGTCTGTAACCTTTCCACTCTTCCTGTAGTCCCGAGGCCCTGGGTCTTCTAGCTTTTCTCTTTCCCATCCTT  
GGGGCCTTGTGTGATGATGGGTGTGGGGCTGCCGATGGGAAAGTCGGGGGTTGTTAGGCTTTTCTGCCTGCTCCT  
GCTTAAACACAAGAAGGAATCCTGGATTTTGCCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTTGTTCCA  
GAGGAGCTCTCCCCCTTGGATTTGAACTTGCTCTTTTTGTTGTTGTTGTTCTTTCTCTTCTTTTCTTACCTCCC  
ACTAAAGGGGTTCCAAATTATCCTGGTCTTTTTCTACCTTGTTGTTGTTTCTATCTCGTCTTTACTTCCATCTGTT  
TGTTTTTTTTCTCCATCAGTGGGGGCCGAGTTGTTCCCCCAGCCTGCCAAATTTTGATCCTTCCCCTCTTTTGGCC  
AAATCCTAGGGGGAAGAAATCCTAGTATGCCAAAAATATATGCTAAGCATAATTAAACTCCATGCGGTCCATAA  
CAGCCAAGAAGCCTGCAGGAGAAAGCCAAGGGCAGTTCCTCCGCAGAACACCCCATGCGTGTCTGAGAGGCGAGC  
TCCTTGAAGAAGGGGCTGTTCTTCCAGGAGGCCTTATTTTGAAGTGCCTCAGGACCCCACTGGAGAGCACAGCAT  
GCCTTACTACTGGGTCTCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCA  
GGGGCACACATGGCTTAAGTGACAAAGCCAGAGGAGAAGACAACCCTGACAGCATCACGCTGCATCCCATTGCTA  
GCAGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCAGTCTAGCACCTCTAGGGCCTCTCCAGACTGTGC  
CCTGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAAT  
TTTCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGACCTTATGTCTGTAAATAATTGA  
TTTTCTAGTTCAAGAAGATAATATTGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGAGTAAGCCAG  
TTGGCTTCTAAGCCAAAAGGATTCTCTTTGTTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAAGGG  
AAATTAATGCTGAGATGATAAAGTCCCCCTTAAGCCAACAAACCCTCTGTAGCTATAGAATGAGTGCAGGTTTCTA  
TTGGTGTGGACTCAGAGCAATTTACAAGAGCTGTTTATGCAGCCATCCATTTGTGCAAAATAGGGTAAGAAGATT  
CAAGAGGATATTTATTACTTCCTCATAACCACATGGCTTTTGATGATTCTGGATTCTAAACAACCCAGAATGGTCA  
TTTCAGGCACAACGATACTACATTCTGTGTGTCTGCTTTTAAACTTGGCTGGGCTATCAGACCCATTCTCGGC  
TCAGGTTTTGAGAAGCCATCAGCAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCTGCAGCC  
TACTTTGGGGAAATAAAGTGCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTTGACAGGTGCCTGTCTCT  
TGAAAAACAAAGTTTCTATTTTTTATTTTTAATTGGTTTAGTTCTTAACTGCTGGCCAACCTTACATCCCCAGCA  
AATCATCGGGCATTGGATTTTTTCCATTATGTTTCATCACCTTATATCATGTACCTCAGATCTCTCTCTCTC  
CTCTCTCTCAGTTATATAGTTTCTTGTCTTGGACTTTTTTTTTCTTTTCTTTTCTTTTTTTTTTTGCTTTAAAA  
CAAGTGTGATGCCATATCAAGTCCATGTTATTCTCTCACAGTGTACTCTATAAGAGGTGTGGGTGTCTGTTTGGT  
CAGGATGTTAGAAAGTGCTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAAATG  
TTGTATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTTAAAGAGTCTTATCTGTTCAAGTGTAAAGTGAT  
TTAAAAAATAATAACCTGTTTTCTGACTAGTTTAAAGATGGATTGTGAAAATGGTTTTGAATGCAATTAGGTTAT  
GCTATTTGGACAATAAACTCACCTTGACCT

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**FIGURE 55**

MELLCHEVDPVRRAVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEE  
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWELVVLGKLKWN  
LAAVTPHDFIEHILRKLPQQREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSVGAAICGLQQDEEVSSLTC  
DALTELLAKITNTDCLKACQEQIEAVLLNSLQQYRQDQRDGSKSEDELDQASTPTDVRDIDL

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**FIGURE 56A**

AGAGCGAGCAGGGGAGAGCGAGACCAGTTTTTAAGGGGAGGACCGGTGCGAGTAAGGCAGCCCCGAGGCTCTGCTC  
GCCCCACCACCCAATCCTCGCCTCCCTTCTGCTCCACCTTCTCTCTCTGCCCTCACCTCTCCCCGAAAACCCCTT  
ATTTAGCCAAAGGAAGGAGGTGAGGGGAACGCTCTCCCTCCCTTCCAAAAAACAAAAACAGAAAAACCCCTTTT  
CCAGGCCGGGGAAAGCAGGAGGGAGAGGGGCCGCGGGCTGGCCATGGGAGCTGCTGTGCCACGAGGTGGACCCGG  
TCCGCGAGGGCCGTGCGGGACCGCAACCTGCTCCGAGACGACCGCTCCTGCAGAACCTGCTCACCATCGAGGAGC  
GCTACCTTCCGCAGTGCTCCTACTTCAAGTGCCTGCAGAAGGACATCCAACCCTACATGCGCAGAATGGTGGCCA  
CCTGGATGCTGGAGGTCTGTGAGGAACAGAAGTGCGAAGAAGAGGTCTTCCCTCTGGCCATGAATTACCTGGACC  
GTTTCTTGGCTGGGGTCCCGACTCCGAAGTCCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTCTCTGGCCTCCA  
AACTCAAAGAGACCAGCCCGCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACCTCCATCAAGCCTCAGGAGC  
TGCTGGAGTGGGAACCTGGTGGTGTCTGGGGAAGTTGAAGTGGAACTGGCAGCTGTCACTCCTCATGACTTCATTG  
AGCACATCTTGCGCAAGCTGCCCCAGCAGCGGGAGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG  
CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCCA  
TCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA  
CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCCTGCAGCAGT  
ACCGTCAGGACCAACGTGACGGATCCAAGTCGGAGGATGAACTGGACCAAGCCAGCACCCCTACAGACGTGCGGG  
ATATCGACCTGTGAGGATGCCAGTTGGGCCGAAAGAGAGAGACGCGTCCATAATCTGGTCTCTTCTTCTTTCTGG  
TTGTTTTTGTCTTTGTGTTTTAGGGTGAAACTTAAAAAAAAAATTCGCCCCACCTAGATCATATTTAAAGAT  
CTTTTAGAAGTGAGAGAAAAAGGTCTACGAAAACGGAATAATAAAAAGCATTGTTGGTGCCTATTTGAAGTACAGC  
ATAAGGGAATCCCTTGATATGCGAACAGTTATTGTTTGATTATGTAAAAGTAATAGTAAATGCTTACAGGAAA  
ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAAATTAGAGGAGACTTTTTTTTTTCATGTTA  
TGAGCTAGCACATACACCCCTTGTTAGTATAATTTCAAGGAACGTGTACGCCATTTATGGCATGATTAGATTGC  
AAAGCAATGAACTCAAGAAGGAATTGAAATAAGGAGGGACATGATGGGGAAGGAGTACAAAACAATCTCTCAACA  
TGATTGAACCATTGTTGGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGTAGTTGGATC  
TCTACATTAATGTCTCTTGCTGTCTACAGTAGCTGTACCTAAAAAAGATGTTTTATTTTGCCAGTTGGACAC  
AGGTGATTGGCTCCTGGGTTTCATGTTCTGTGACATCCTGCTTCTTCTTCCAAATGCAGTTTATTGCAGACACCA  
CCATATTGCTATCTAATGGGGAAATGTAGCTATGGGCCATAACCAAACTCACATGAAACGGAGGCAGATGGAGA  
CCAAGGGTGGGATCCAGAATGGAGTCTTTTCTGTTATTGTATTTAAAAGGGTAATGTGGCCTTGGCATTCTTCT  
TAGAAAAAACTAATTTTTTGGTGCTGATTGGCATGTCTGGTTTACAGTTTAGCATTGTTATAAACCATTCATT  
GAAAAGCACTTTGAAAAATTGTTCCCGAGCGATAGATGGGATGGTTTATGCAAGTCATGCTGAATACTCCTCCCC  
TCTTCTCTTTTGCCCCCTCCCTTCTGCCCCAGTCTGGGTTACTCTTCGCTTCTGGTATCTGGCGTTCTTTGGT  
ACACAGTTCTGGTGTTCTTACCAGGACTCAAGAGACACCCCTTCTGCTGACATTCCCATCACAACATTCTCAG  
ACAAGCCTGTAAACTAAAATCTGTTACCATCTGATGGCACAGAAGGATCTTAATCCCATCTCTATACTTCTCCT  
TTGGACATGGAAAGAAAAGTTATTGCTGGTGCAAAGATAGATGGCTGAACATCAGGGTGTGGCATTTTGTTCCCT  
TTTCCGTTTTTTTTTTTTTATTGTTGTTGTTAATTTTATTGCAAAGTTGTATTACAGCGTACTTGAATTTTTCTT  
CCTCTCCACTTCTTAGAGGCATTGAGTTAGCAAAGAGGTTGGAGCAACAACCTTTTTTTTTTTTTTGCACAAT  
TGTAATTGACAGGTAATGAAGCTATTTGTTAAAATATTTGCCTTTTAAAGTAAAAAAGAAAAATCAGAACAGGGC  
TATTTGAAGAATTATTTTATACACAGATTCTGCCTTGTTTCATAGTATGAGGGTTGAAGACGGAAAAACAATCTAA  
GGGTCTCTCATTTTTTTAATTTTGTGTTGTTTCAGTTTGGTTTTTTTTTTTTTTTGGCGCTGCTAAGAAGCTAAAGT  
CATCCATCCTTATTCACGTTGACAGTACCTAGCTGTAATGTTTCACAGAGTGTGCTGCTATTTTATAAACATTTT  
TATAATATATTATTTTACTGCTTAAATTCCAAGTCCTGAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGAA  
AAGCCCTTCCGTAGTTTGTCTTCTGGTAGCATATTCATGGTTGTTTTTTTTTTTTTCTTTTTTGGTTTTTTGGT  
TTTTTTTTTTTTTCTCTGATCACATCTTCAAAGACGGAGTATTCTTACCTCAGGTTTACTGGACAAAATCAATAA  
CTACAAAAGGCAATGATTCACGCTTTTGTTTTTATAATACCTCACAAACCGTACAGTTTCTGCTTGGGAGCCCATT  
CGCATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGGCGGTCTCACTCCCA  
GGGACCTTTTTGGTCAATGGAGGCCATCGGGCTCCAGTTAGACCCTGGTATCCTCATCATGATGGAAAAAATACA  
TTGAACCAAGGGATCTCCTCCCTCCCTTCAAGGCAGACGTTTCAAGTACAAACATTTATGCGGTAGGCTCAGATGTG  
TAATTTGCACTTAGGTACCAGGTGTCAGGAACAGACTAAAAAGAATTCCACCAGGCTGTTTGGAGATCCTCATC  
TTGGAGCTTTTTCAAAGCGGGGCTTCATCTGCAAAGGGCCCTTTCATCTTGAAGTTTTTCCCTCCGTCTTTCC

**FIGURE 56B**

CCTCCCCTGGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCTAGGTCTGAATCTGCGAGTAGATGA  
ACCTGCAGCAAGCAGCGTTTATGGTGCTTCCTTCTCCCTCCTCTGTCTCAAACCTGCGCAGGCAAGCACTATGCAA  
GCCCAGGCCCTCTGCTGAGCGTACTAAACGGTCGGGTTTTCAATCACACTGAATTGGCAGGATAAGAAAAATAG  
GTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTACAGAGGTGAAATTCAGATGAG  
TCAGTCTCTTGGGAAGTGTGTTTAGAAGGGTTCAGGACTTTGTGAGTTAGCATGACCCTAAAATTCTAGGGGATT  
TCTGGTGGGACAATGGGTGGTGAATTTTGAAGTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCCAG  
AGTTTTCTCAAGAGCCAGCTTGTCTCAGCACACTCTCCTGGGCCCAAGGAGTCCACGGAATGGGGAAAGTGGG  
AACCCTGGAGTTCTTGGGAATCTTGGAGCCTAAAGAGAAACCGAGGTGCAAATTCATTCATGGTGACTIONGACCCT  
TGAGCTTAAACAGAAGCAGCAAATGAAAGAACCGGACAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTTAC  
AGTCTGTAACTTTCCACTCTTCTGTAGTCCCGAGGCCCTGGGTCTTCTAGCTTTTCTCTTTCCCATCCTTGG  
GGCCTTGTGTGATGATGGGTGTGGGGCTGCCGATGGGAAAGTGGGGGTTGTTAGGCTTTTCTGCCTGCTCCTGC  
TTAAACACAAGAAGGAATCCTGGATTTTGCCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTTGTTCCAGA  
GGAGCTCTCCCCCTTGGATTTGAACTTGCTCTTTTTGTTGTTGTTGTTCTTTCTCTTCTTTTCTTACCTCCAC  
TAAAGGGGTTCCAAATTATCCTGGTCTTTTTCTACCTTGTTGTGTTTCTATCTCGTCTTTACTTCCATCTGTTTG  
TTTTTTTCTCCATCAGTGGGGCCGAGTTGTTCCCCCAGCCTGCCAAATTTTGATCCTTCCCCTCTTTTGGCCAA  
ATCCTAGGGGGAAGAAATCCTAGTATGCCAAAATATATGCTAAGCATAATTAACTCCATGCGGGTCCATAACA  
GCCAAGAAGCCTGCAGGAGAAAGCCAAGGGCAGTTCCCTCCGCAGAACACCCCATGCGTGCTGAGAGGCGAGCTC  
CTTGAAGAAGGGGCTGTTCTTCCAGGAGGCCTTATTTTGAAGTGCCTCAGGACCCCACTGGAGAGCACAGCATGC  
CTTACTACTGGGTCATCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCAGG  
GGCACACATGGCTTAAGTGACAAAGCCAGAGGAGAAGACAACCCTGACAGCATCACGCTGCATCCCATTGCTAGC  
AGGATTGGCAACTCTTCAGACGGAGCTGCGCTTCCCTGCAGTCTAGCACCTCTAGGGCTCTCCAGACTGTGCCC  
TGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAATTT  
TCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGCACCTTATGTCATGTAAATAATTGATT  
TTCTAGTTCAAGAAGATAATATTGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGAGTAAGCCAGTT  
GGCTTCTAAGCCAAAAGGATTCTTCTTTGTTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAGGGAA  
ATTAATGCTGAGATGATAAAGTCCCCCTAAGCCAACAAACCCTCTGTAGCTATAGAATGAGTGCAGGTTTCTATT  
GGTGTGGACTCAGAGCAATTTACAAGAGCTGTTTATGCAGCCATCCATTTGTGCAAAAATAGGGTAAGAAGATTCA  
AGAGGATATTTATTACTTCCCTCATACCACATGGCTTTTGATGATTCTGGATTCTAAACAACCCAGAATGGTCATT  
TCAGGCACAACGATACTACATTCTGTGTGTCTGCTTTTTAACTTGGCTGGGCTATCAGACCCTATTCTCGGCTC  
AGGTTTTGAGAAGCCATCAGCAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCTGCAGCCTA  
CTTTGGGGAAATAAAGTGCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTTGACAGGTGCCTGTCTTG  
AAAAACAAAGTTTCTATTTTTATTTTTAATTGGTTTAGTTCTTAACTGCTGGCCAACCTTACATCCCCAGCAAA  
TCATCGGGCCATTGGATTTTTTCCATTATGTTTATCACCCTTATATCATGTACCTCAGATCTCTCTCTCTCCT  
CTCTCTCAGTTATATAGTTTCTTGTCTTGGACTTTTTTTTTCTTTTCTTTTTTTTTTTTTTGCTTTAAACA  
AGTGTGATGCCATATCAAGTCCATGTTATTCTCTCACAGTGTACTCTATAAGAGGTGTGGGTGTCTGTTTGGTCA  
GGATGTTAGAAAGTGTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAAATGTT  
GTATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTAAGAGGTCTTATCTGTTCAGTGTAAAGTGATT  
AAAAAATAATAACCTGTTTTCTGACTAGTTTAAAGATGGATTTGAAAATGGTTTTGAATGCAATTAGGTTATGC  
TATTTGGACAATAAACTCACCTTGACCT

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**FIGURE 57**

MELLCHEVDPVRRAVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEE  
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWEIVVLGKLKWN  
LAAVTPHDFIEHILRKLPQQREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSGAAICGLQQDEEVSSLTC  
DALTELLAKITNTDCLKACQEQIEAVLLNSLQQYRQDQRDGSKEDELQASTPTDVRDIDL

**FIGURE 58A**

[illegible]

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**FIGURE 58B**

ATGTTTAGCAAATGGCTCTGACAGGGTGGCCATGAGCAGATGAGACCAGCTCTTGCTTGGTTGGAAGCCACACTG  
CAGTTTGCAGTTTAGCCTTTGGTGTCTCAGTGGCCTCTTGCTTATTCCATGCTTTTTCTATCCCATCCTCTCTCT  
GTGCCCTCCTGCAATGGCAGCCTTGGCACAATGCCTGGGTGTCTCATCCTTGCTTTACTCTGGAAAGTGTGGGG  
ATGGAGAGGATGGTGCATTTCCAGTGTCTTCTTACCTGTCAATAACAATGGTGGCCACCTGGGTCCCAGCACTTG  
GCTGGTGGAGAGATTTTTTTCATTATGGAGCTAATAAAGGGTCCCTACGTTTTACATTGATTAATGAATTATCAC  
CCAGACATGTGCAGATGAAATGTCAATATAAGAAAAATCAAGGTATTTGGGAAACATGGGCATAATCAGGTAGTT  
TTGCTAAAAATTCCTCTTCCTTGGTCTACATAAAGAAGACATGGGTCTGTCATAGAATGGGGACATTAGACTGAAA  
ACTGGGACAACCCCCCTTCCTTATTTTATAGAGACTAGGAGTTAAGGGGCCTGCCTAAGATTGCAGTGATAAAGAA  
CTGAACCTTAAATCAGCTCCCCTAATGAAACCTGCTTTCCTTGATCTTTTAACTCAGTTCTGCATCCAACCT  
TGAGAAGAAAAAAGCTTCTTTCATATCAAGTACCATATGAGTTCATTTAACTGCACCTTGAGAAATGCATT  
GCCAGAAAGCACCAGTAGCCTCCTATCTGCAAGCAGAGTAGTGCTCTGCTCTGGGGAGGGGTCAATTGGAAACCAT  
AATGCAGAGTGGGCCCCCTACTCCATTTCCCAGCAAAAGGCTCCAGCTGGAGGGATGGGTTGTGGGGCAACCTGG  
TTCCTGCTAACTGCCAGATTGAATGIGTGGGCTAGAATGCCTGCGCATTTAGTTAACTGGGCTCAGCATGCTTG  
TCCTCAAAATGTCCATCCTGGTACAGCACACAAGATGGCTATTGGTCTGCTTTTACCCTACCCTGTACTATACA  
TGAAATTCAGTTATTAACACACTCAAAGTGGTGGAGCTTGTTCCACCTAGGAAGGGGATTGTATATATGGCAG  
GCTTCCCTGGTGCCGATGTAAAGGGCTACATTTGGGAACATTTGACTTCCTTGGGACTCTTAAGTGCATACTGAT  
GGCATGAAGTAAAAGGGGCCTCAATGATGATAGGAAAATCAGTTCTTTTAAAATTTCTTCAAGAAAATCCAGGCT  
ATCACATAGTCTTTCTGTGTGACTTATTAGGAGATAGGAAGAGCATTGGGAACTTGCACAGCTAGCTATGCATC  
TACATTTTGGTTTGGGGTTAGTTATGAAATGTTCTTAATATGACGTGTTCAATAACTTCACATAAACTTCCTGTT  
CTCCAAAACCTCAAAGAGATAGAGTTAATGAGTTGTTGTTTTTTTTTAAATGGGGGTAGTTTTCTATCTGTCATG  
GGCTCTAGCATCTACTCCGCTACCCAATTCTGTCTATCTCCAAGCTGAGTTTCCTCTCTGAGGCAGAGGCTGGAG  
CAGTTCTTTTTTTCAGTTCTCATCCTCTCCATCCCAATCCAGTATATCAATCAACTCTAACTCGGAGACGTCTAGCT  
GGCAATGTTTCTAAAACCTTTCAGTGGATTTCTTTAGACATTGAAGCAAAACATTTTTTTCTAAGAATTGCTTCTCA  
GATGATGATATCAAATGTATATGCTTTTGAAGTTTGAAGAGTTCAAATTAACCACTTTTGAAGTAAAGTCTT  
TCTAAAAAACCATTTAAAGCTAACTGGGTCTTAGCATCCTCCTGTGTATGGAAGAGACAGGTGACCGCTCCAGGTT  
GGGTGCTCACAGAACCCTTTTCTGACTCTCATGGAAGATGGTGGAGGAAAATAGACTGTCTCATCAACCCTCC  
TGTGTCTCTGAAGCAATCTCAGTTTTTATTAACCACTCTTCTGTGTTTCTGGTAGCTATTTAACCTGTATTTA  
ATCTGTACTTCCTATGCCAGCCTCAATTTTATTTGATTTTTTAAATTAATCTCTTCTAACCAATGAAGTGTGTTG  
CAGTATGCCCCAAAGCTTGCTCTTTTGTGCTCCCTTTTGAATAACTTCTATCCAGAAAAAGAGATTATTTGGGA  
CTTGAGATTTGCAGTGATACCACTTATAGCAATGATGTACTTTAAGGGAACTACCCAACCTATGTTGTGATAGAA  
GAAAGAGAAACCTTCACTTTGGCATTTTTTTAAATCACTGTTTATTTTCTGTTTGGCGCCAGGAAGCAGTGGG  
AGGTGGTGGCAGATATGCTTTGCATATGGATTGTTATGTTTTTATTTGGGCAAGTTTAAATCATGGAAAACCTCAA  
AAGAAGGGGGGAAATGGTCAGTTAAGCCAAAAGAACTTCTAAACAATGTATAGGTACACAGCAAAATTAAC  
AAATCCAACAATTTCTGAAGCTTAGTGTAATTGAGTGGTGGTGTATTCAATAAAATTTATCCCAAAAGTGT  
CTCCTAAGAGTGCAGTTCCCATGAGTCACTTCTGAACCCATTGACCAAAGGTGGACAGAGACAATCCTGTAGAC  
CTTGACATTGAGAAAGATGTGAGCTGCTTACTGATCATATATGCATACGTTTCTTTACAGCAGAGGAAACCAT  
TCCACAAAACCTGATGTTCTTTTGGGGTTTTATGTACAGACTTGTCCAATCATGTGTGTGGTTCCTGCGAGTTGCT  
GATGACTCCGCAATTGAAGCTCTCTGAGTTCTTTGATTTTTAAGTTGGGTATGGAATTTTTTCAAATGTTGGAAG  
GCGTGTGGTTCTTCCTGCCCTCCCTCCCTTTTGGAAATATGAAAGCAAATGTTTAGAAGAATTCCTTTTAAAA  
GCTGTGTGCTGTTCCCTGTGAACTGAGCAGGTGTGTGTTGGCGCGCTAAGTGCCACATGCTTGTGTGTAGAGGA  
GGAGGTGGCCCTGCCGGCTCCGCGCTGCTGTGCCTGTGATCCCTACCTGCTCCCCGCTCCTGTTGCCAGCAGCAC  
TCACTGCACCTCCTTTGTCTATATACTCTGCATCACTGTCTATACTCACAACCTTCGTGAATAAAGTTGTGTGCTTTAT  
TCGTC

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**FIGURE 59**

MFTEGEEMYLQGSTVWHPDCKQSTKTEEKLRPTRTSSESIYSRPGSSIPGSPGHTIYAKVDNEILDYKDLAAIPK  
VKAIYDIERPDLITYEPFYTSYDDKQERQSLGESPRTLSPTPSAEGYQDVRDRMIHRSTSQGSINSPVYSRHSY  
TPTTSRSPQHFRPGNEPSSGRNSPLPYRPDSRPLTPTYAQAPKHFHVPDQGINIYRKPPYKQHAALAAQSKSS  
EDI IKFSKFPAAPDPSETPEIETDHWPGPPSFAVIGPDMKRRSSGREEDDEELLRRRQLQEEQLMKLNSGLGQ  
LILKEEMEKESRERSLLASRYDSPINSASHIPSSKTASLPGYGRNGLHRPVSTDFAQYNSYGDVSGGVRDYQTL  
PDGHMPAMRMDRGVSMFNMLEPKIFPYEMLMVTNRGRNKILREVDRTLRERHLAPEVVFREIFGMSIQEFDRLPLW  
RRNDMKKKAKLF



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**FIGURE 60**

GAAAGCTGTATTTGCTGCACGTGGAAATCTCCGTTATTTTCCAGCACCCAACAGTAGCGTAATGGGAGTAACGGA  
CTTAACCTCATTTCTCTTTCAGAGCATTTAGCCTTCATATGCCCTTCCCTGCATGCTTCCCCCAGGCCGTCAAGA  
CTTGAGTTCTGCCTCGCTTCCCGCGCGGTGCGAGCCCTCAGCCCACTTAGGATAAATGCGACAGCTGAGGTACT  
GAACATTGGTAAAAAATTATATGAGGGTAAACAAAAGAAGTCTACGAATTGTTAGACAGTCCAGGAAAAGTCCT  
CCTGCAGTCCAAGGACCAGATTACAGCAGGAAATGCAGCTAGAAAAAACACCTGGAAGGAAAAGCTGCAATCTC  
AAATAAAATCACCAGTTGTATTTTTCAGTTATTACAGGAAGCAGGTATTAAACTGCCTTCACCAGAAAATGTGG  
GGAGACAGCTTTCATTGCACCGCAGTGTGAAATGATTCCAATTGAATGGGTTTGAGAAAGAAATAGCAACTGGTTC  
TTTTCTCAAAGAAATCCTGGTGTCAAGGAAGGATATAAGTTTTACCCACCTAAAGTGGAGTTGTTTTTCAAGGA  
TGATGCCAATAATGACCCACAGTGGTCTGAGGAACAGCTGATTGCTGCAAAATTTTGCTTTGCTGGACTTCTTAT  
AGGCCAGACTGAAGTGGATATCATGAGTCATGCTACACAGGCTATATTTGAAATACTGGAGAAATCCTGGTTGCC  
CCAGAATTGTACACTGGTTGATATGAAGATTGAATTTGGTGTGATGTAAACCACCAAAGAAATTGTTCTTGCTGA  
TGTTATTGACAATGATTCTGGAGACTCTGGCCATCAGGAGATCGAAGCCAAACAGAAAGACAAACAGTCTTATCG  
GGACCTCAAAGAAGTAACTCCTGAAGGGCTCCAAATGGTAAAGAAAAACTTTGAGTGGGTTGCAGAGAGAGTAGA  
GTTGCTTTTGAAATCAGAAAGTCAGTGCAGGGTTGTAGTGTGATGGGCTCTACTTCTGATCTTGGTCACTGTGA  
AAAAATCAAGAAGGCCCTGTGGAATTTTGGCATTCCATGTGAACCTTCGAGTAACATCTGCGCATAAAGGACCAGA  
TGAAACTCTGAGGATTAAAGCTGAGTATGAAGGGGATGGCATTCTACTGTATTTGTGGCAGTGGCAGGCAGAAG  
TAATGGTTTGGGACCAGTGTATGTCTGGGAACACTGCATATCCAGTTATCAGCTGTCTCTCCCTCACACCAGACTG  
GGGAGTTCAAGGATGTGTGGTCTTCTCTTCGACTACCCAGTGGTCTTGGCTGTTCAACCGTACTTTCTCCAGAAGG  
ATCAGCTCAATTTGCTGCTCAGATATTTGGGTAAAGCAACCATTGGTATGGAGCAAACGCGAGCAAGCATT  
GAACACATGGATTTCTTGAAGCAGGCTGACAAGAAAATCAGAGAATGTAATTTATAAGAAAGAAATGCCATTGAA  
TTTTTTAGGGGAAAAACTACAAATTTCTAATTTAGCTGAAGGAAAATCAAGCAAGATGAAAAGGTAATTTTAAAT  
TAGAGAACACAAATAAAATGTATTAGTGAATAAATGCTTCTCTAGATCCATATTAATAAACATGAGCATCTAACC  
CCTCCTTTCTTAGGCTAGACACCAAGATATTTAGCCAGCCTTTATCATTCTCTTACTTTATCCTTTTTCTCTTA  
AGTATTGGTGGTCACTACTATTGAGTTTCTTCTTAACACTGATTAAATGATCTTAACTCCCTCAGCTAAACTG  
GCATTACTGACTCCAGCTATATTTCTCCAGACTTGCATTTTTTTTTTTTTTTTGTAGACAGGGTCTCACTGTG  
CCCAGGCTGGAGTGCAGTGGCGTGATCTCAGTTCAGTGTGCTTTCCCTCCTGGGCTCAAGCAGTTCCTCCACCT  
CAGCCTCTCGACTAACAGGGACTATAATCTTGACAGCACCATGCCGAGCTAATTTTATTTTTTGTAGAGATGAGCT  
CTCACTATGTCACCCAGGTTCTGCTCAAACCTCTGAACCCTAGTAATTTCTCTATCTCAGCCTCCCAAAGTGCTA  
GGGTTACAGACATGAGCCACTGTGCCTGTCTAGACTTGTACTTTCAACTGTCCATTTCTCCCTGTCTGTCCCATG  
GGCACTCATGAAAAAACAGAATGCTCCCAACTTTATTCATCTTCCAAGCCTGTAGCTCTTGGTATACTCACTGTT  
GCAAGTCAGAAGCTTGATTTTCATCATTGATGTTTTTCTCACGTTTCACATCTCACTCATCACCAGTCATGTTGG  
TGTTAATTTCTGATTAACCTTGAATTTACCGTCTTCTCATCTCTGTACAAAAGCCTCAAGTGAGGGTCAAATT  
CAACATTATCCTGATCTAGACAGCCCCATTCTCAATCCACCCTTTTCCAAGTTGATTGCCCAAGGACTTCTAAC  
AATAAACTCTCTTTGCACCACAGACTTCTTTGAAAATATACATGCTGTTGACCTCTCTGTAGAAAACCGCACA  
CATAAACTTACCAACAGATTTCATTGGTTCTTGGGTTCTCCGAAGCCTATCCATGGTTTATAGATTAAGAATT  
GATGAGGTAGCTGGGCACAGTGGCTCACACCTACGATCACAGCACTTCGGGAGGCTGAAGCAAGCAGATCACTTG  
AGGTCAGGAGTTTGAGACCAGCCTGGCCAACATGGTGAACCCCTGTCTCTACTAAAAATACAAAAAGTAGCCAGC  
CGTGATGACAGGCACCTGTAATCCAGCTACTCGGGAGGCTGAGGCATGAGAATTGCTTGAACCCGGGAGGCGGA  
GGTTGCAGTGAGCCTGGATCATGCCACTGCACTCCAACCTGGGCAGCAGAGCAAGACTCTGTCTCAAAGGGGAA  
AAAAAAATTTGCTGATGTGACCCATGAAGGGAACCTATTTTCTCGTAATTTTGGACTGCCACACATTGGTACCT  
TTAGTTCTCTGAAGGCCACGTTTTTATCATTAAAGACCTATTTGTTAGCTAGTAGAGCTTTATGTTTCGCTGTCCA  
TGAAACCTTCTGTAACCACAGTGACTACAAGTAGTTCTTTCTCTATTGAATTATTAGGTCCAGAATAGAAGATGT  
CATTGTACACTTTATTTCCCTCACACTGTGTTATGCTCTGATGTGCTATGCTTAGCTATCTGTCAGAGATTAGTA  
AATTATAAACTCATGTGTACTACTTAAGTTTATATCTTATGCTAGTTTATAAGAACAAATTAAGGACTTAGAA  
GATTAATAAAAAAAAAAAAAAAAAA

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**FIGURE 61**

MATAEVLNIGKKLYEGKTKEVYELLDSPGKVLLQSKDQITAGNAARKNHLEGKAAISNKITSCIFQLLQEAGIKT  
AFTRKCGETAFAIAPQCEMPIEWVCRRIATGSFLKRNPVGVEGYKFYPPKVELFFKDDANNDPQWSEEQLIAAKF  
CFAGLLIGQTEVDIMSHATQAIFEILEKSWLPQNCTLVDMKIEFGVDVTTKEIVLADVIDNDSWRLWPSGDRSQQ  
KDKQSYRDLKEVTPEGLQMVKKNF EWVAERVELLLKSESQCRVVVLMGSTSDLGHCEKIKKACGNFGIPCELVRT  
SAHKGPDETLRIKAIEYEGDIGPTVFVAVAGRSNGLGPVMSGNTAYPVISCPPLTPDWGVQDVWSSLRLPSGLGCS  
TVLSPEGSAQFAAQIFGLSNHLVWSKLRASILNTWISLKQADKKIRECNL

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FIGURE 62

GAAAGCTGTATTTGCTGCACGTGGAAATCTCCGTTATTTTCCAGCACCCAACAGTAGCGTAATGGGAGTAACGGA  
CTTAACCTCATTCTCTTTAGAGCATTAGCCTTCATATGCCCTTCCCTGCATGCTTCCCCAGGCCGTCAAGA  
CTTGAGTTCTGCCTCGCTTCCCGGCGCGGTCGAGCCCTCAGCCCACTTAGGATAATGCGGACAGCTGAGGTACT  
GAACATTGGTAAAAAATTATATGAGGGTAAACAAAAGAAGTCTACGAATTGTTAGACAGTCCAGGAAAAGTCTC  
CCTGCAGTCCAAGGACCAGATTACAGCAGGAAATGCAGCTAGAAAAAACCACTGGAAGGAAAAGCTGCAATCTC  
AAATAAAATCACCAGTTGTATTTTTCAGTTATTACAGGAAGCAGGTATTAAACTGCCTTCACCAGAAAATGTGG  
GGAGACAGCTTTCATTGCACCGCAGTGTGAAATGATTCCAATTGAATGGGTTTGCAGAAGAATAGCAACTGGTTC  
TTTTCTCAAAAGAAATCCTGGTGTCAAGGAAGGATATAAGTTTTACCCACCTAAAGTGGAGTTGTTTTTCAAGGA  
TGATGCCAATAATGACCCACAGTGGTCTGAGGAACAGCTGATTGCTGCAAAATTTTGCTTTGCTGGACTTCTTAT  
AGGCCAGACTGAAGTGGATATCATGAGTCATGCTACACAGGCTATATTTGAAATACTGGAGAAATCCTGGTTGCC  
CCAGAATTGTACACTGGTTGATATGAAGATTGAATTTGGTGTGATGTAAACCACCAAAGAAATTGTTCTTGCTGA  
TGTTATTGACAATGATTCTGGAGACTCTGGCCATCAGGAGATCGAAGCCAAACAGAAAGACAAACAGTCTTATCG  
GGACCTCAAAAGAAAGTAACTCCTGAAGGGCTCCAAATGGTAAAGAAAAAATTTGAGTGGGTTGCAGAGAGAGTAGA  
GTTGCTTTTGAAATCAGAAAGTCAGTGCAGGGTTGTAGTGTGATGGGCTCTACTTCTGATCTTGGTCACTGTGA  
AAAAATCAAGAAGGCCTGTGGAATTTTGGCATTCCATGTGAACCTTCGAGTAACATCTGCGCATAAAGGACCAGA  
TGAAACTCTGAGGATTAAAGCTGAGTATGAAGGGGATGGCATTCTACTGTATTTGTGGCAGTGGCAGGCAGAAG  
TAATGGTTTGGGACCAGTGATGTCTGGGAACACTGCATATCCAGTTATCAGCTGTCTCCCTCACACCAGACTG  
GGGAGTTCAAGGATGTGTGGTCTTCTCTTCGACTACCCAGTGGTCTTGGCTGTTCAACCGTACTTTCTCCAGAAGG  
ATCAGCTCAATTTGCTGCTCAGATATTTGGGTAAAGCAACCATTGTTATGGAGCAAACCTGCGAGCAAGCATT  
GAACACATGGATTTCCTGAAGCAGGCTGACAAGAAAATCAGAGAATGTAATTTATAGAAAGAAATGCCATTGAA  
TTTTTTAGGGGAAAAAATACTACAAATTTCTAATTTAGCTGAAGGAAAAATCAAGCAAGATGAAAAGGTAATTTTAAAT  
TAGAGAACACAAATAAAATGTATTAGTGAATAAATGCTTCTCTAGATCCATATTAATAAACATGAGCATCTAACC  
CCTCCTTTCTTAGGCTAGACACCAAGATATTTAGCCAGCCTTTATCATTCCTCTTACTTTATCCTTTTTCTCTTA  
AGTATTGGTGGTCACTACTATTGAGTTTCTTCTTAACACTGATTAAATGATCTTAACTCCCTCAGCTAAAAGT  
GCATTACTGACTCCAGCTATATTTCTCCAGACTTGCAATTTTTTTTTTTTTTTTTTGTAGACAGGGTCTCACTGTG  
CCCAGGCTGGAGTGCAGTGGCGTGATCTCAGTTCACTGCTGCTTTCCCTCCTGGGCTCAAGCAGTTCTCCACCT  
CAGCCTCTCGACTAACAGGGACTATAATCTTGACAGCACCATGCCGAGCTAATTTTATTTTTTGTAGAGATGAGCT  
CTCACTATGTACCCAGGTTCTGCTCAAACCTCTGAACCCTAGTAATTTCTCTATCTCAGCCTCCCAAAGTGCTA  
GGGTTACAGACATGAGCCACTGTGCCTGTCTAGACTTGTACTTTCAACTGTCCATTTCTCCCTGTCTGTCCCATG  
GGCACTCATGAAAAACAGAATGCTCCCAACTTTTATTCATCTTCCAAGCCTGTAGCTCTTGGTATACTCACTGTT  
GCAAGTCAGAAGCTTGATTTATCATTGATGTTTTTCTCAGTTTTACATCTCACTCATACCAAGTCATGTTGG  
TGTTAATTTCTGATTAACCTTGAATTTACCGTCTTCTCATCCTCTGTACAAAAGCCTCAAGTGAGGGTCAAATT  
CAACATTATCCTGATCTAGACAGCCCCATTCTCAATCCACCCTTTTCCAAGTTGATTGCCCAAGGACTTCTAAC  
AATAAACTCTCTTTTGACCACAGACTTCTTTGAAAATATACATGCTGTTGACCCTCTCTGTAGAAAACCGCACA  
CATAAACTTACCAACAGATTTCAATTGGTTCTTGGGTTCTCCCGAAGCCTATCCATGGTTTATAGATTAAAGATT  
GATGAGGTAGCTGGGCACAGTGGCTCACACCTACGATCACAGCACTTCGGGAGGCTGAAGCAAGCAGATCACTTG  
AGGTCAGGAGTTTGGAGACCAGCCTGGCCAACATGGTGAAACCCTGTCTCTACTAAAAATACAAAAGTAGCCAGC  
CGTGATGACAGGCACCTGTAATCCCAGCTACTCGGGAGGCTGAGGCATGAGAATTGCTTGAACCCGGGAGGCGGA  
GGTTGCAGTGAGCCTGGATCATGCCACTGCACTCCAACCTGGGCAGCAGAGCAAGACTCTGTCTCAAAGGGGAA  
AAAAAAATTTGCTGATGTGACCCATGAAGGGAATCATTTTCTCGTAATTTTGGACTGCCACACATTGGTACCT  
TTAGTTCTCTGAAGGCCACGTTTTTATCATTAAAGACCTATTTGTTAGCTAGTAGAGCTTTATGTTGCTGTCCA  
TGAAACCTTCTGTAAACCACAGTGACTACAAGTAGTTCTTTCTCTATTGAATTATTAGGTCCAGAATAGAAGATGT  
CATTGTACACTTTATTTCCCTCACACTGTGTTATGCTCTGATGTGCTATGCTTAGCTATCTGTCAGAGATTAGTA  
AATTATAAAACTCATGTGTACTACTTAAGTTTATATCTTATGCTAGTTTATAAGAACAATTAAGGACTTAGAA  
GATTAAAAA

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**FIGURE 63**

MATAEVLNIGKKLYEGKTKEVYELLDSPGKVLLQSKDQITAGNAARKNHLEGKAAISNKITSCIFQLLQEAGIKT  
AFTRKCGETAFIAPQCEMPIEWVCRRIATGSFLKRNPVKEGYKFYPPKVELFFKDDANNDPQWSEEQLIAAKF  
CFAGLLIGQTEVDIMSHATQAIFEILEKSWLPQNCTLVDMKIEFGVDVTTKEIVLADVIDNDSWRLWPSGDRSQQ  
KDKQSYRDLKEVTPEGLQMVKKNFWEVAERVELLLKSESQCRVVVLMSGSTSDLGHCEKIKKACGNFGIPCEL RVT  
SAHKGPDETLRIKAEYEGDGIPTVFVAVAGRSNGLGPVMSGNTAYPVISCPPLTPDWGVQDVWSSLRLPSGLGCS  
TVLSPEGSAQFAAQIFGLSNHLVWSKLRASILNTWISLKQADKKIRECNL

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**FIGURE 64**

TCGCTGCGAAGGACATTTGGGCTGTGTGTGCGACGCGGGTCGGAGGGGCAGTCGGGGGAACCGCGAAGAAGCCGA  
GGAGCCCGGAGCCCCGCGTGACGCTCCTCTCTCAGTCCAAAAGCGGCTTTTGGTTCGGCGCAGAGAGACCCGGGG  
GTCTAGCTTTTTCCTCGAAAAAGCGCCGCCCTGCCCTTGGCCCCGAGAACAGACAAAAGAGCACCGCAGGGCCGATCA  
CGCTGGGGGCGCTGAGGCCGGCC**ATG**GTCATGGAAGTGGGCACCCTGGACGCTGGAGGCCTGCGGGCGCTGCTGG  
GGGAGCGAGCGGGCGCAATGCCTGTCTGCTGGACTGCCGCTCCTTCTTCGCTTTCAACGCCGGCCACATCGCCGGCT  
CTGTCAACGTGCGCTTCAGCACCATCGTGCGGCGCCGGGCCAAGGGCGCCATGGGCCTGGAGCACATCGTGCCCA  
ACGCCGAGCTCCGCGGCCGCTGTGCGCGCGCCTACCACGCCGTGGTGTGCTGGACGAGCGCAGCGCCGCC  
TGGACGGCGCCAAGCGCGACGGCACCCCTGGCCCTGGCGGCCGGCGCGCTCTGCCGCGAGGCGCGCCGCGCAAG  
TCTTCTTCCTCAAAGGAGGATACGAAGCGTTTTTCGGCTTCTTGCCCGGAGCTGTGCAGCAAACAGTCGACCCCCA  
TGGGGCTCAGCCTTCCCTGAGTACTAGCGTCCCTGACAGCGCGGAATCTGGGTGCAGTTCCTGCAGTACCCAC  
TCTACGATCAGGGTGGCCCGGTGGAAATCCTGCCCTTTCTGTACCTGGGCAGTGCCTATCACGCTTCCCGCAAGG  
ACATGCTGGATGCCTTGGGCATAACTGCCTTGATCAACGTCTCAGCCAATTGTCCCAACCATTTTGAGGGTCACT  
ACCAGTACAAGAGCATCCCTGTGGAGGACAACCACAAGGCAGACATCAGCTCCTGGTTCAACGAGGCCATTGACT  
TCATAGACTCCATCAAGAATGCTGGAGGAAGGGTGTGTTGTCCACTGCCAGGCAGGCATTTCCCGGTGAGCCACCA  
TCTGCCTTGCTTACCTTATGAGGACTAATCGAGTCAAGCTGGACGAGGCCCTTTGAGTTTGTGAAGCAGAGGCGAA  
GCATCATCTCTCCCAACTTCAGCTTCATGGGCCAGCTGCTGCAGTTTGAGTCCCAGGTGCTGGCTCCGCACTGTT  
CGGCAGAGGCTGGGAGCCCCGCCATGGCTGTGCTCGACCGAGGCACCTCCACCACCACCGTGTTCAACTTCCCCG  
TCTCCATCCCTGTCCACTCCACGAACAGTGCCTGAGCTACCTTCAGAGCCCCATTACGACCTCTCCAGCTGCT**T**  
**GAA**AGGCCACGGGAGGTGAGGCTCTTCACATCCATTGGGACTCCATGCTCCTTGAGAGGAGAAATGCAATAACT  
CTGGGAGGGGCTCGAGAGGGCTGGTCCTTATTTATTTAACTTCACCCGAGTTCCTCTGGGTTTCTAAGCAGTTAT  
GGTGATGACTTAGCGTCAAGACATTTGCTGAACTCAGCACATTCGGGACCAATATATAGTGGGTACATCAAGTCC  
ATCTGACAAAATGGGGCAGAAGAGAAAGGACTCAGTGTGTGATCCGGTTTCTTTTGTCTGCCCCCTGTTTTTGT  
AGAATCTCTTCATGCTTGACATACCTACCAGTATTATTCCCGACGACACATATACATATGAGAATATACCTTATT  
TATTTTTGTGTAGGTGTCTGCCCTCACAAATGTCATTGTCTACTCCTAGAAGAACCAAATACCTCAATTTTTGT  
TTTGTAGTACTGTACTATCCTGTAAATATATCTTAAGCAGGTTTGTTCAGCACTGATGGAAAATACCAGTGTTG  
GGTTTTTTTTTAGTTGCCAACAGTTGTATGTTTGCTGATTATTTATGACCTGAAATAATATATTTCTTCTCTAA  
GAAGACATTTTGTTACATAAGGATGACTTTTTTATACAATGGAATAAATTATGGCATTCTATTG

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**FIGURE 65**

MVMEVGTL DAGGLRALLGERAAQC LLLDCRSFFAFNAGHIAGSVNVRFSTIVRRRAKGAMGLEHIVPNAELRGRL  
LAGAYHAVVLLDERSAALDGA KRDTLALAAGALCREARAAQVFFLKGGYEAFSASCPELCSKQSTPMGLSLPLS  
TSVPDSAESGCSSCSTPLYDQGGPVEILPFLYLGSAYHASRKDMLDALGITALINVSANCPNHFEGHYQYKSIPV  
EDNHKADISSWFNEAIDFIDSIKNAGGRV FVHCQAGISRSATICLAYLMRTNRVKLDEAFEFVKQRRSIISP NFS  
FMGQLLQFESQVLAPHCSAEAGSPAMAVLDRGTSTTTVFNFVSI PVHSTNSALSYLQSPITTSPSC

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**FIGURE 66**

TGTCGGGGACGGTAACCGGGACCCGTGCTCTGCTCCTGTGCGCTTCGCCTCCTGAATCCCTAGCCAT**ATG**CGTGA  
GTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGCCTGGAACA  
CGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCCTTCAACACCTTCTT  
CAGTGAGACGGGCGCTGGCAAGCACGTGCCCCGGGCTGTGTTTGTAGACTTGGAACCCACAGTCATTGATGAAGT  
TCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAGGAAGATGCTGCCAATAACTA  
TGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTTGTGTTGGACCGAATTCGCAAGCTGGCTGACCA  
GTGCACCCGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAAC TGTTCTGGGTTACCTCCCTGCT  
CATGGAACGCCTGTCAGTTGATTATGGCAAGAAATCCAAGCTGGAGTTCTCCATTTACCCGGCACCCCAAGTTTC  
CACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCACACCACCTGGAGCACTCTGATTGTGCCTTCAT  
GGTAGACAATGAGGCCATCTATGACATCTGTCTGTAGAAACCTCGATATCGAGCGCCCAACCTACACTAACCTTAA  
CCGCCTTATTAGCCAGATTGTGTCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTTGACCTGAC  
AGAATTCCAGACCAACCTGGTCCCTACCCCGCATCCACTTCCCTCTGGCCACATATGCCCCGTGCATCTCTGC  
TGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGACATCACCAATGCTTGCTTTGAGCCAGCCAACCAGATGGT  
GAAATGTGACCCTGGCCATGGTAAATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGT  
CAATGCTGCCATTGCCACCATCAAAACCAAGCGCACGATCCAGTTTGTGGATTGGTGCCCCACTGGCTTCAAGGT  
TGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAGCTGTGTGCATGCT  
GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCCAAGCGTGC  
CTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTAGAGGCCCGTGAAGATATGGCTGCCCT  
TGAGAAGGATTATGAGGAGTTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGGAATACT**TAAT**  
ATCCATTCTTTTGGCCCTGCAGCATGTCATGCTCCAGAATTTAGCTTCAGCTTAAC TGACAGATGTTAAAGC  
TTTCTGGTTAGATTGTTTTCACTTGGTGATCATGTCTTTTCCATGTGTACCTGTAATATTTTTCCATCATATCTC  
AAAGTAAAGTCATTAACATCA

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**FIGURE 67**

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI  
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTRLQGFLVFHSFGGGTGSGFT  
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISA EKAYHEQLSVADITNACFEPAN  
QMVKCDPGHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV  
CMLSNTTAIAEAWARLDHKFDL MYAKRA FVHWYVGEGMEEGEFSEAREDMAALEKDYE EVGVDSVEGE GEEGEE  
Y



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**FIGURE 68**

ATCTCTCTCGGGTGGAGTCCTTCTGACAGCTGGTGC GCCTGCCCGGGAACATCCTCCTGGACTCAATC**ATG**GCTT  
GTGGTCTGGTCGCCAGCAACCTGAATCTCAAACCTGGAGAGTGCCTTCGAGTGCAGAGGCGAGGTGGCTCCTGACG  
CTAAGAGCTTCGTGCTGAACCTGGGCAAAGACAGCAACAACCTGTGCCTGCACTTCAACCCTCGCTTCAACGCCC  
ACGGCGACGCCAACACCATCGTGTGCAACAGCAAGGACGGCGGGGCCTGGGGGACCGAGCAGCGGGAGGCTGTCT  
TTCCCTTCCAGCCTGGAAGTGTTCAGAGGTGTGCATCACCTTCGACCAGGCCAACCTGACCGTCAAGCTGCCAG  
ATGGATACGAATTCAAGTCCCCAACCGCCTCAACCTGGAGGCCATCAACTACATGGCAGCTGACGGTGACTTCA  
AGATCAAATGTGTGGCCTTTGACT**TGAA**ATCAGCCAGCCCATGGCCCCCAATAAAGGCAGCTGCCTCTGCTCCCT  
G

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**FIGURE 69**

MACGLVASNLNLKPGECLRVGEVAPDAKSFVLNLGKDSNNLCLHFNPRFNAHGDANTIVCNSKDGGAWGTEQRE  
AVFPFQPGSVAEVCITFDQANLTVKLDPGYEFKFPNRLNLEAINYMAADGDFKIKCVAFD

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**FIGURE 70**

TCAGAAGCTGATTGCATCCAAAGCAAATGACCACCAAGGTTTTTATCTTCTAAACAGTATAATAGAGCACATGCC  
TCCTGAATCAGTTGACCAATATAGGAAACAAATCTTCATTCTGCTATTCCAGAGACTTCAGAATTCCAAAACAAC  
CAAGTTTATCAAGAGTTTTTTAGTCTTTATTAATTTGTATTGCATAAAATATGGGGCACTAGCACTACAAGAAAT  
ATTTGATGGTATACAACCAAAAATGTTTGGAAATGGTTTTGGAAAAAATTATTATTCCTGAAATTCAGAAGGTATC  
TGGAAATGTAGAGAAAAAGATCTGTGCGGTTGGCATAACCAAAATTACTAACAGAATGTCCCCCAATGATGGACAC  
TGAGTATACCAAACCTGTGGACTCCATTATTACAGTCTTTGATTGGTCTTTTTGAGTTACCCGAAGATGATACCAT  
TCCTGATGAGGAACATTTTATTGACATAGAAGATACACCAGGATATCAGACTGCCTTCTCACAGTTGGCATTTCG  
TGGGAAAAAAGAGCATGATCCTGTAGGTCAAATGGTGAATAACCCCAAAATTCACCTGGCACAGTCACTTCACAA  
GTTGTCTACCGCCTGTCCAGGAAGGACCTATTTTTGAAGGCATAAAAGCAGTTGAGTTTCTGGAGAATTTTTGGA  
TGGTGATTAATGACTTGACTGGCTGCTCTTCCCAGAGCTGTGGCAGCTCTCCCGTAGAAGATGGGGTTTGTATTG  
GCGCACCAAGATCTCCAACAGCCAGTGTGTGTTTCCCATCTCTTGTAGGTTCCATCAATGGTGAGCACCAGCCTG  
AATGCAGAAGCGCTCCAGTATCTCCAAGGGTACCTTCAGGCAGCCAGTGTGACACTGCTTTAAACTGCATTTTTTC  
TAATGGGCTAAACCCAGATGGTTTCTTAGGAAATCACAGGCTTCTGAGCACAGCTGCATTAAACAAAGGAAGTT  
CTCCTTTTGAACCTGTGACGAATTCCATCTTGTAAGGATATTAAATGTTGCTTTAACCTGAACCTTGAGCAAAT  
TAGTTGGTTTGTGTGATCATAAGTTATGTGGGTGGCTTCTAGTTTGCAACTTCAAGGGACAAGTATTAATAGTT  
CAGTGTATGGCGTTGGTTTGTGTTGAGCGTTTGACGGTTTGGATAATCTTAAATTTTGACGGACACTGTGGAGA  
CTTTXCTGTACTAAATCCTTTTGTGTTTGAAGCTGTTGCTATTTGTATTTCTTGTCTTTATATTTTTTGTCT  
GTTTATTTACGCTTTTATTGGAATGTGAATAAGTAAAGAATTACTTGTGTTACTTGCCAAGCAGTGCACATTTTC  
ATAGTTTCAAATCTGTAATCAGCAATAAAAATCCTAAAATATGTACCTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 71**

CGGGATGCGGCGCGCCGCGCGTTGAACCTCCTTGGCCTGGGCGAAGCTGTGTGGACCAAGCAAGTCAGGAGTGTG  
GCC**ATG**TTTTCTGAGCAGGCTGCCCAGAGGGCCACACTCTACTGTCCCCACCATCAGCCAACAATGCCACCTTT  
GCCCGGGTGCCAGTGGCAACCTACACCAACTCCTCACAACCCTTCCGGCTAGGAGAGCGCAGCTTTAGCCGGCAG  
TATGCCCACATTTATGCCACCCGCCTCATCCAAATGAGACCCTTCCTGGAGAACCGGGCCAGCAGCACTGGGGC  
AGTGGAGTGGGAGTGAAGAAGCTGTGTGAAGTGCAGCCTGAGGAGAAGTGCTGTGTGGTGGGCACTCTGTTCAAG  
GCCATGCCGCTGCAGCCCTCCATCCTGCGGGAGGTGAGCGAGGAGCACAACTGCTCCCCAGCCTCCTCGGAGT  
AAATACATACACCCAGATGACGAGCTGGTCTTGGAAGATGAAGTGCAGCGTATCAAATAAAAGGCACCATTGAC  
GTGTCAAAGCTGGTTACGGGGACTGTCTGGCTGTGTTTGGCTCCGTGAGAGACGACGGGAAGTTTCTGGTGGAG  
GACTATTGCTTTGCTGACCTTGCTCCCCAGAAGCCCGCACCCCCACTTGACACAGATAGGTTTGTGCTACTGGTG  
TCCGGCCTGGGCCTGGGTGGCGGTGGAGGCGAGAGCCTGCTGGGCACCCAGCTGCTGGTGGATGTGGTGACGGGG  
CAGCTTGGGGACGAAGGGGAGCAGTGCAGCGCCGCCACGTCTCCCGGGTTATCCTCGCTGGCAACCTCCTCAGC  
CACAGCACCCAGAGCAGGGATTCTATCAATAAGGCCAAATACCTCACCAAGAAAACCCAGGCAGCCAGCGTGGAG  
GCTGTAAAGATGCTGGATGAGATCCTCCTGCAGCTGAGCGCCTCAGTGCCCGTGGACGTGATGCCAGGCGAGTTT  
GATCCCACCAATTACACGCTCCCCCAGCAGCCCCTCCACCCCTGCATGTTCCCGCTGGCCACTGCCTACTCCAG  
CTCCAGCTGGTCACCAACCCCTACCAGGCCACCATTGATGGAGTCAGATTTTTGGGGACATCAGGACAGAACGTG  
AGTGACATTTTCCGATACAGCAGCATGGAGGATCACTTGGAGATCCTGGAGTGGACCCTGCGGGTCCGTACATC  
AGCCCCACAGCCCCGGACACTCTAGGTTGTTACCCCTTCTACAAAACGACCCGTTTCATCTTCCAGAGTGCCCG  
CATGTCTACTTTTGTGGCAACACCCCCAGCTTTGGCTCCAAAATCATCCGAGGTCCTGAGGACCAGACAGTGCTG  
TTGGTGAAGTGTCCCTGACTTCAGTGCCACGCAGACCGCCTGCCTTGTGAACCTGCGCAGCCTGGCCTGCCAGCCC  
ATCAGCTTCTCGGGCTTCGGGGCAGAGGACGATGACCTGGGAGGCCTGGGGCTGGGCCCC**TGAC**TAAAAAAGTG  
GTTTTGACCAGAGAGGCCAGATGGAGGCTGTTCAATCCCTGCAGTGTCGGCATTGTAAATAAAGCCTGGCACTT  
GCTGATGCG

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**FIGURE 72**

MFSEQAAQRAHTLLSPPSANNATFARVPVATYTNSSQPFRLGERSFSRQYAHYATRLIQMRPFLENRAQQHWGS  
GVGVKKLCELQPEEKCCVVGTLFKAMPLQPSILREVSEHNLLQPPRSKEYIHPDDELVEDELQRIKLKGTIDV  
SKLVTGTVLAVFGSVRDDGKFLVEDYCFADLAPQKPAPPLDTRFVLLVSGGLGGGGGESLLGTQLLVVVVGQ  
LGDEGEQCSAAHVSRLVILAGNLLSHSTQSRDSINKAKYLTKKTQAASVEAVKMLDEILLQLSASVPVDVMPGEFD  
PTNYTLPQQPLHPCMFPLATAYSTLQLVTNPYQATIDGVRFLGTSGQNVSDIFRYSSMEDHLEILEWTLRVRHIS  
PTAPDTLGCYPFYKTDPFIFPECPHVYFCGNTPSFGSKIIRGPEDQTVLLVTVPDFSATQTACLVNLRSLACQPI  
SFSGFGAEDDDLGGGLGLGP



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**FIGURE 74**

MADDLDFETGDAGASATFPMQCSALRKNGFVVLKGRPCKIVEMSTSKTGKHGHAKVHLVGIDIFTGKKYEDICPS  
THNMDVPNIKRNDLFQLIGIQDGYLSLLQDSGEVREDLRLPEGDLGKEIEQKYDCGEEILITVLSAMTEEA A VAIK  
AMAK

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**FIGURE 75**

AGCGAGTCCTTCTTTTCCTGACTGCAGCTCTTTTCATTTTGCCATCCTTCTCCAGCTCCCATGATGGTTCTGCAGG  
 TTTCTGCGCCCCCGGACAGTGGCTCTGACGGCGTTACTGATGGTGCTGCTCACATCTGTGGTCCAGGGCAGGG  
 CCACTCCAGAGAATTACGTGTACCAGGGACGGCAGGAATGCTACGCGTTTAATGGGACACAGCGCTTCCTGGAGA  
 GATACATCTACAACCGGGAGGAGTACGCGCGCTTCGACAGCGACGTGGGGGAGTTCCGGGCGGTGACGGAGCTGG  
 GGCGGCTGTGTCGGAGTACTGGAACAGCCAGAAGGACATCCTGGAGGAGAAGCGGGCAGTGCCGGACAGGGTAT  
 GCAGACACAACACTACGAGCTGGACGAGGCCGTGACCTGCAGCGCCGAGTCCAGCCTAAGGTGAACGTTTCCCCCT  
 CCAAGAAGGGGCCCTGCAGCACCACAACCTGCTTGTCTGCCACGTGACAGATTTCTACCCAGGCAGCATTCAAG  
 TCCGATGGTTCTGAAATGGACAGGAGGAAACAGCTGGGGTCTGTGTCCACCAACCTGATCCGTAATGGAGACTGGA  
 CCTTCCAGATCCTGGTGATGCTGGAAATGACCCCCCAGCAGGGAGACGTCTACATCTGCCAAGTGGAGCACACCA  
 GCCTGGACAGTCTGTACCGTGGAGTGGAAAGGCACAGTCTGATTCTGCCCAGAGTAAGACATTGACGGGAGCTG  
 GGGGCTTCGTGCTGGGGCTCATCATCTGTGGAGTGGGCATCTTCATGCACAGGAGGAGCAAGAAAGTTCAACGAG  
 GATCTGCATTAAACAGGGTTTCTGACCTCACCGAAAAGACTAATGTGCCTTAGAACAAGCATTGTGCTGTGTTTTGT  
 TAACACCTGGTTCCAGGACAGACCCTCAGCTTCCCAAGAGGATACTGCTGCCAAGAAGTTGCTCTGAAGTCAGTT  
 TCTATCGTTCTGCTCTTTGATTCAAAGCACTGTTTCTCTCACTGGGCCTCCAACCATGTTCCCTTCTTCTTAGCA  
 CCACAAATAATCAAAACCCAACATAAGTGTGTTTCTTTAAAAATATGCATCAAATCGTCTCTCATTACTTT  
 TCTCTGAGGGTTTTAGTAAACAGTAGGAGTTAATAAAGAAGTTCAATTTGGTTTACACGTAGGAAAGAAGAGAAG  
 CATCAAAGTGGAGATATGTTAACTATTGTATAATGTGGCCTGTTATACATGACACTCTTCTGAATTGACTGTATT  
 TCAGTGAGCTGCCCCCAAATCAAGTTTAGTGGCCTCATCCATTTATGTCTCAGACCGCTATTCTTAACTATTCAA  
 TGGTGAGCAGACTGCAAATCTGCCTGATAGGACCCATATTCCCACAGCACTAATTCAACATATATCTTACTGAGA  
 GCATGTTTTATCATTACCATTAAGAAGTTAAATGAACATCAGAATTTAAATCATAAATATAATCTAATACACTT  
 T



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**FIGURE 76**

MMVLQVSAAPRTVALTALLMVLLTSVVQGRATPENYVYQGRQECYAFNGTQRFLERYIYNREEYARFDSVGEFR  
AVTELGRPAAEYWNSQKDILEEKRAVPDRVCRHNYELDEAVTLQRRVQPKVNVSPSKKGPLQHHNLLVCHVTDFY  
PGSIQVRWFLNGQEETAGVVSTNLIRNGDWTQILVMLEMPQQGDVYICQVEHTSLDSPVTVEWKAQSDSAQSK  
TLTGAGGFVLGLIICGVGIFMHRRSKKVQRGSA

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**FIGURE 77**

GGCACGAGGGGCGGCCGGTGAGGGGGAAGCAAGTCTGGTCTCTGTGATTGAAGAAGTCGGCTCTGGGCTCCAGTG  
CGGGAATCACACACATACCTCAGAAATGCCGGGTCTAAGTTGTAGATTTTATCAACACAAATTTCTGAGGTGGAA  
GATGTAGTGATGGTGAATGTCAGATCCATTGCTGAAATGGGGGCTTATGTCAGCTTGCTGGAATACAACAACATT  
GAAGGCATGATTCTTCTTAGTGAATTATCCAGAAGGCGTATCCGTTCTATCAACAACTCATCCGAATTGGCAGG  
AATGAGTGTGTGGTTGTCATTAGGGTGGACAAAGAAAAAGGATATATTGATTTGTCAAAAAGAAGAGTTTCTCCA  
GAGGAAGCAATCAAATGTGAAGACAAATTCACAAAATCCAAAATGTTTATAGCATTCTTCGTCATGTTGCTGAG  
GTGTTAGAATACACCAAGGATGAGCAGCTGGAAAGCCTATTCCAGAGGACTGCCTGGGTCTTTGATGACAAGTAC  
AAGAGACCTGGATATGGTGCCTATGATGCATTTAAGCATGCAGTCTCAGACCCATCTATTTTGGATAGTTTAGAT  
TTGAATGAAGATGAACGGGAAGTACTCATTAAATAATATTAATAGGCGCTTGACCCACAGGCTGTCAAAATTCGA  
GCAGATATTGAAGTGGCTTGTATGGTTATGAAGGCATTGATGCTGTAAAAAGAAGCCCTAAGAGCAGGTTTGAAT  
TGTTCTACAGAAAAATGCCATTAAAGATTAATCTAATAGCTCCTCCTCGGTATGTAATGACTACGACAACCCTG  
GAGAGAACAGAAAGGCCCTTCTGTCTCAGTCAAGCTATGGCTGTTATCAAGAGAAAGATTGAGGAAAAGAGGGGT  
GTGTTCAATGTTCAAATGGAGCCCAAAGTGGTCCACAGATACAGATGAGACTGAACCTGCGAGGCAGATGGAGAGG  
CTTGAAAGAGAAAAATGCCGAAGTGGATGGAGATGATGATGCAGAAGAAATGGAAGCCAAAGCTGAAGATTAACTT  
TGTGGGAAACAGAGTCCAATTTAAGGAACACAGAGCAGCGCTTCTGGCTGTAAATCCTAGACTTGAAAGTTTTC  
CAGTATTGAAAATCTCAAAGCTGAATATTTTTTATTTCTAAGTATTTAAATGTTCTAACAGATCAGAACATGAAA  
TGCCCTCCTAAATGTCAGCTGTTGTCACACAGTAGCTCCAACACTTTGAGCATTTTTAAGGGAGTGGCCTCATT  
CACTAGAGACAAATCTTTAAGAATAGTTCTAAAATTTGGGCTTGATTTCCATTTCTGATGTCTCCAGATTGGCA  
CCCCTTTCTAGTTCAATGCCTCACGAGATTGGCAGGGGCATCCAAGGCAAACAATCCCAATCTTTCTATATAAA  
ATGTATTCAAGCAAACATCAAATAAATTTCTGGGATATTTAACTATAGGCTTCTCCTTCTTGTCACCAGTTAAA  
AGCATTTTAATACTAAGACCCTAATCTTTTATCTTTATTTTAGTCTTGATGTGGAAGTGTAGGAGCAGGTGAAT  
AAAGGATCTCTATAACAGATCCTTTCAAAGAAGAGTTTTAGAGAAAAATAAATTTAACTTTAACCACAGTGAAAG  
TTGACCCTTAGCGGGACAAAGCCTTAAATGCATTGAAAGAATTAGATCGGTTCTGTGCCTTTTATCTATTTGAG  
ATTGATGACAACCTGTGTGAGAGAATTTATCACACCACGTCTTATTGGAATAATAAGCTACTTGCCCTTGAGTTT  
ATAATTCAGGGTGGTAAAGTATGTTTTTAAATTTTAAAAAGCAGCTGCATTTTTTTATTTAGTTGGAATATCACC  
AATTTTTTATTTTTATTGCTATTAAATATCCACTAGATGCCACCTAGAGCTCCAGTTCTTTATAACAAAACAGG  
GATCTGTTTGAACACTTACTGTTGTTTTTTTTTTTTTACATGTTTCCATCATTTCTGTCTTTAAGAATAATTTCG  
TACATAATAAGTTTCATAGGTAACACATTATATTCTCTTATGATACTTGAGGTACCAGTTGTATTTAATTTTTATT  
CATTATCCCTAGATAGCTATTAAGATACTTAGATTAGACCTAACCCACCATAGTCAATCCAAGACTAGACTACTC  
AATATTAAAGGGTCTGGAATAAGAGAGTGTGTTGGGCAGGTAGTTTGTACCATTTATGAAGGTTTGTTCTTT  
GTTAAATTTAGCAGCCTGTACTAGCTTTTGAAATCCAGAAGTTTAACTTCCAGTGGCTGGTTTCTGAGAGAGTG  
CCATGATTGCTAGCCAGCATTCCATATTGGGAATATGTAGAGGAGAACCTGGATGTACTTAAGAGTGGCATATAA  
TTTTCACTTCTGTCTGTTGAGGCAAAAAAAAAACAAGTTTAGAAAGCTGGCAACATGAAGAATGCATTCAAATA  
TAACAGGTGCTTCTTTGTTGTACGCAGAGGAATTTTTCTTTTGATTTTGTGTTACTGAAATTTGTTATACTTCAA  
AAGCCATAACTTGAAAAATACTGGTGGCGTCGATGGTGAGTGATTTTTATCCACGTGGGCCCTTTTGCTCAGTTC  
CATGGCAATTTTGTAATTTGACCCTAGCCAGAGAAATAGATCAGTATTTCACTGATACCACGAGGAAAAGAACAA  
CAAACTTTAAAGTATTCATACACCTTGCTAACCTAAAAGACAGCAGGGACAAGATACATATGAGGACAAGGTAT  
ACACCCAGTTCTGAATAACTTGAAGAACAGGCTTGCAAGAAGTAAGTTTATCCAAATCTTGAATTTCTGCCAG  
GCATGGTAGCTCATGCCTGTAACCTGGCACTTAAGGGGCCAAGGCAGGAGGATCACTTGAGGCCAGTGAGCTGT  
GATCACTCCAGTGCCTCGAGCCTGGGTGACAGGGCAAGACCCTGTCTCAAAAAAAAAAAAAAAAAA



[illegible]

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**FIGURE 80**

MERIPSAQPPACLPKAPGLEHGDLPAGMYPAHMYQVYKSRRGIKRSEDSKETYKLPHRLIEKKRRDRINECIAQL  
KDLLPEHLKLTTLGHLEKAVVLELTCLKHVKALTNLIDQQQKI IALQSGLQAGELSGRNVETGQEMFCSGFQTCA  
REVLQYLAKHENTRDLKSSQLVTHLHRVVSELLQGGTSRKPSDPAPKVMDFKEKPSSPAKGSEPGKNCVPVIQR  
TFAHSSGEQSGSDTDTDSGYGGESEKGDLRSEQPCFKSDHGRRFTMGERIGAIIKQSEEPPTKKNRMQLSDDEGH  
FTSSDLISSPFLGPHPHQPPFCLPFYLIPPSATAYLPMLEKCWYPTSVPVLYPGLNASAAALSSFMNPDKISAPL  
LMPQRLPSPLPAHPSVDSSVLLQALKPIPLNLETKD

### FIGURE 81

GGACACCGGGCCATGCACGCCCCCAACTGAAGCTGCATCTCAAAGCCGAAGATTCCAGCAGCCCCAGGGGATTTC  
AAGAGCTCAGACTCAGAGGAACATCTGCGGAGAGACCCCCGAAGCCCTCTCCAGGGCAGTCTCATCCAGACGCT  
CCGCTAGTGCAGACAGGAGCGCGCAGTGGCCCCGGCTCGCCGCGCCATGGAGCGGATCCCCAGCGCGCAACCACC  
CCCCGCTGCCTGCCCAAAGCACCGGGACTGGAGCACGGAGACCTACCAGGGATGTACCCTGCCACATGTACCA  
AGTGTACAAGTCAAGACGGGGAATAAAGCGGAGCGAGGACAGCAAGGAGACCTACAAATTGCCGACCGGCTCAT  
CGAGAAAAAGAGACGTGACCGGATTAACGAGTGCATCGCCAGCTGAAGGATCTCTACCCGAACATCTCAAAC  
TACAACCTTTGGGTCACTTGGAAAAAGCAGTGGTTCTTGAACCTTACCTTGAAGCATGTGAAAGCACTAACAACCT  
AATTGATCAGCAGCAGCAGAAAAATCATTGCCCTGCAGAGTGGTTTACAAGCTGGTGAGCTGTGAGGGAGAAATGT  
CGAAACAGGTCAAGAGATGTTCTGCTCAGGTTTCCAGACATGTGCCCGGGAGGTGCTTCAGTATCTGGCCAAGCA  
CGAGAACACTCGGGACCTGAAGTCTTTCGACGCTTGTACCCACCTCCACCGGGTGGTCTCGGAGCTGCTGCAGGG  
TGGTACCTCCAGGAAGCCATCAGACCCAGCTCCCAAAGTGATGGACTTCAAGGAAAAACCCAGCTCTCCGGCCAA  
AGGTTTCGGAAGGTCTTGGGAAAACTGCGTGCCAGTCATCCAGCGGACTTTCGCTCACTCGAGTGGGGAGCAGAG  
CGGCAGCGACACGGACACAGACAGTGGCTATGGAGGAGAATCGGAGAAGGGCGACTTTCGCGAGTGAGCAGCCGTG  
CTTCAAAGTGACCACGGACGCAGGTTACGATGGGAGAAAGGATCGGCGCAATTAAGCAAGAGTCCGAAGAACC  
CCCCACAAAAAAGAACCGGATGCAGCTTTCGGATGATGAAGGCCATTTCACTAGCAGTGACCTGATCAGCTCCCC  
GTTCTTGGGCCCACACCCACACCAGCCTCCTTTCTGCCTGCCCTTCTACCTGATCCACCTTCAGCGACTGCCTA  
CTGCCCCATGCTGGAGAAGTGCTGGTATCCCACCTCAGTGCCAGTGCTATACCCAGGCCTCAACGCCTCTGCCGC  
AGCCCTCTCTAGCTTCATGAACCCAGACAAGATCTCGGCTCCCTTGCTCATGCCCCAGAGACTCCCTTCTCCCTT  
GCCAGCTCATCCGTCCGTGCACTCTTCTGTCTTGCTCCAAGCTCTGAAGCCAATCCCCCCTTTAAACTTAGAAAC  
CAAAGACTAAACTCTCTAGGGGATCCTGCTGCTTTGCTTTCCTTCCTCGCTACTTTCCTAAAAAGCAACAAAAAG  
TTTTTGTGAATGCTGCAAGATTGTTGCATTGTGTATACTGAGATAATCTGAGGCATGGAGAGCAGATTTCAGGGTG  
TGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTATGTGCGTGTGCGTGACATGTGTGCCTGCGTGTGGTATAGGACTTT  
AAAGCTCCTTTTGGCATAGGGAAGTCACGAAGGATTGCTTGACATCAGGAGACTTGGGGGGGATTGTAGCAGACG  
TCTGGGCTTTTCCCCACCCAGAGAATAGCCCCCTTCGATACACATCAGCTGGATTTTCAAAGCTTCAAAGTCTT  
GGTCTGTGAGTCACCTTTCAGTTTGGGAGCTGGGTCTGTGGCTTTGATCAGAAGGTAATTTCAAAGAGGGCTTT  
CCAGGGCTCAGCTCCCAACCAGCTGTTAGGACCCACCCCTTTTGCTTTATTGTGACGTGACTCACCAGACGTC  
GGGAGAGAGAGCAGTCAGACCGAGCTTCTGCTAACATGGGGAGGTAGCAGGCACTGGCATAGCACGGTAGTGG  
TTTGGGGAGGTTTCCGCAAGTCTGCTCCCCACCCCTGCCTCGGAAGAATAAAGAGAATGTAGTTCCCTACTCAGG  
CTTTCGTAGTGATTAGCTTACTAAGGAAGTAAAAATGGGCCCTTGTTACAAGCTGAGCTGCCCCGGAGGGAGGGA  
GGAGTTCCCTGGGCTTCTGGCACCTGTTTCTAGGCCTAACCATAGTACTTACTGTGCAGGGAACCAAACCAAGG  
TCTGAGAAATGCGGACACCCCGAGCGAGCACCCCAAAGTGCACAAAGCTGAGTAAAAGCTGCCCCCTTCAAACA  
GAAGTACTAGCTCAGTTTTCAATTCCATCCTAAAACTCCTTTTAACCAAGCTTAGCTTCTCAAAGGCCTAACCAAGC  
CTTGGCACCGCCAGATCCTTTCTGTAGGCTAATTCTCTTGCCCAACGGCATATGGAGTGTCTTTATTGCTAAAA  
AGGATTCCGTCTCCTTCAAAGAAGTTTTATTTTTGGTCCAGAGTACTTGTTTTCCCGATGTGTCCAGCCAGCTCC  
GCAGCAGCTTTTCAAGATGCATATGCCTGATTGCTGATCGTGTTTTAACTTTTTCTTTTCTGTTTTTATTTTG  
GTATTAAGTCGTTGCCTTTATTTGTAAAGCTGTTATAAATATATATTATATAAATATATTAATAAGGAAAAATGTT  
TCAGATGTTTTATTTGTATAATTACTTGATTACACAGTGAGAAAAAATGAATGTATTCTGTTTTTGAAGAGAAG  
AATAATTTTTTTTTCTCTAGGGAGAGGTACAGTGTTTTATTTTTGGAGCCTTCTGAAGGTGTAAAATTGTAAAT  
ATTTTTATCTAAGAGTAAATGTTAAGTAGTTGTTTTAAAAATACTTAATAAAATAATTCTTTTCTGTGGAAG

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**FIGURE 82**

MERIPSAQPPACLPKAPGLEHGDLPGLMYPAHMYQVYKSRRGIKRSEDSKETYLPHRLIEKKRRDRINECIAQL  
KDLLPEHLKLTTLGHLEKAVVLELTCLKHVKALTNLIDQQQKI IALQSGLQAGELSGRNVETGQEMFCSGFQTCA  
REVLQYLAKHENTRDLKSSQLVTHLHRVVSELLQGGTSRKPSDPAPKVMDFKEKPSSPAKGSEGPKNVCVPVIQR  
TFAHSSGEQSGSDTDTD SGYGGESEKGDLRSEQPCFKSDHGRRFTMGERIGA IKQESEEPPTKKNRMQLSDDEGH  
FTSSDLISSPFLGPHPHQPPFCLPFYLIPPSATAYLPMLEKCWYPTSVPVLYPGLNASAAAALSSFMNPDKISAPL  
LMPQRLPSPLPAHPSVDSSVLLQALKPIPLNLETKD

**FIGURE 83A**

GTCCTTTACACGCGTGTCTTCGTGTTGGTGCGCTTTTCACTGGTCATAAAGTGTCTGCTCACGGCCGTGAACCTGCTA  
 CAGCGTGAAGGCCGCCACCCGGGTCCAGGATGCTTTTTGCCGCCGCCAAGCTCCTGGCCCTGGCCCTGATCATCCT  
 GCTGGGCTTCGTCCAGATCGGGAAGGGTGATGTGTCCAATCTAGATCCCAAGTTCTCATTTGAAGGCACCAAACCT  
 GGATGTGGGGAACATTGTGCTGGCATTATACAGCGGCCCTCTTGCCTATGGAGGATGGAATTACTTGAATTTCTG  
 CACAGAGGAAATGATCAACCCCTACAGAAACCTGCCCCCTGGCCATCATCATCTCCCTGCCCATCGTGACGCTGGT  
 GTACGTGCTGACCAACCTGGCCTACTTCAACCACCTGTCCACCGAGCAGATGCTGTGCTCCGAGGCCGTGGCCGT  
 GGACTTCGGGAACATACACCTGGGCGTCATGTCTGGATCATCCCCGCTCTTCGTGGGCCTGTCTGCTTTGGCTC  
 CGTCAATGGGTCCCTGTTTACATCCTCCAGGCTCTTCTTTCGTGGGGTCCCGGGAAGGCCACCTGCCCTCCATCCT  
 CTCCATGATCCACCCACAGCTCCTCACCCCGTGCCGTCCCTCGTGTTACGTGTGTGATGACGCTGCTCTACGC  
 CTTCTCCAAGGACATCTTCTCCGTATCAACTTCTTCAGCTTCTTCAACTGGCTCTGCGTGGCCCTGGCCATCAT  
 CGGCATGATCTGGCTGCGCCACAGAAAGCCTGAGCTTGAGCGGCCCATCAAGGTGAACCTGGCCCTGCCTGTGTT  
 CTTATCCTGGCCTGCCTCTTCTGATCGCCGTCTCCTTCTGGAAGACACCCGTGGAGTGTGGCATCGGCTTCAC  
 CATCATCCTCAGCGGGCTGCCCGTCTACTTCTTCGGGGTCTGGTGGAAAAACAAGCCCAAGTGGCTCCTCCAGGG  
 CATCTTCTCCACGACCGTCTGTGTGAGAAGCTCATGCAGGTGGTCCCCCAGGAGACATAGCCAGGAGGCCGAGT  
 GGCTGCCGGAGGAGCATGCGCAGAGGCCAGTTAAAGTAGATCACCTCCTCGAACCCACTCCGGTTCCCCGCAACC  
 CACAGCTCAGCTGCCCATCCCAGTCTCGCCGTCCCTCCCAGGTCCGGCAGTGGAGGCTGCTGTGAAAACCTCTGG  
 TACGAATCTCATCCCTCAACTGAGGGCCAGGGACCCAGGTGTGCCGTGTGCTCCTGCCCAGGAGCAGCTTTTGGTC  
 TCCTTGGGCCCTTTTTCCCTTCCCTCCTTTGTTTACTTATATATATATTTTTTTTTTAAACTTAAATTTTGGGTCAA  
 CTTGACACCACTAAGATGATTTTTTAAAGGAGCTGGGGGAAGGCAGGAGCCTTCCTTTCTCCTGCCCAAGGGCCC  
 AGACCCTGGGCAAACAGAGCTACTGAGACTTGGAACCTCATTGCTACCACAGACTTGCAGTGAAGCCAGACAGCT  
 GCCCAGACACATGGGCTTGTGACATTTCGTGAAAACCAACCCTGTGGGCTTATGTCTCTGCCTTAGGGTTTGCAGA  
 GTGGAAACTCAGCCGTAGGGTGGCACTGGGAGGGGGTGGGGGATCTGGGCAAGGTGGGTGATTCTCTCCAGGAGG  
 TGCTTGAGGCCCCGATGGACTCCTGACCATAATCCTAGCCCCGAGACACCATCCTGAGCCAGGGAACAGCCCCAG  
 GGTTGGGGGGGTGCCGGCATCTCCCTAGCTCACCAGGCCTGGCCTCTGGGCAGTGTGGCCTCTTGGCTATTTCTG  
 TTCCAGTTTTTGAGGCTGAGTTCTGGTTTCATGCAGACAAAGCCCTGTCTTTCAGTCTTCTAGAAACAGAGACAAG  
 AAAGGCAGACACACCGCGGCCAGGCACCCATGTGGGCGCCACCTGGGCTCCACACAGCAGTGTCCCCTGCCCC  
 AGAGGTGCGAGCTACCCTCAGCCTCCAATGCATTGGCCTCTGTACCGCCCCGGCAGCCCCCTTCTGGCCGGTGTCTGG  
 GTTCCCACTCCCGGCCTAGGCACCTCCCCGCTCTCCCTGTACGCTCATGTCTGTCTGCTGCTGATGCCCGTT  
 GTCTAGGAGACAGAGCCAAGCACTGCTCACGTCTCTGCCGCTGCGTTTGAGAGGCCCTGGGCTCTCACCCAGTC  
 CCCACCCGCTGCAGAGAGGGAACCTAGGGCACCCCTTGTTTCTGTTGTTCCCGTGAATTTTTTTCGCTATGGGAG  
 GCAGCCGAGGCCTGGCCAATGCGGCCCACTTTCCTGAGCTGTGCTGCCTCCATGGCAGCAGCCAAGGACCCCCA  
 GAACAAGAAGACCCCCCGCAGGATCCCTCCTGAGCTCGGGGGGCTCTGCCTTCTCAGGCCCCGGGCTTCCCTTC  
 TCCCCAGCCAGAGGTGGAGCCAAGTGGTCCAGCGTCACTCCAGTGTCTGAGTGTGGCTGGAGGAGCTGGCCTGTG  
 GCACAGCCCTGAGTGTCCCAAGCCGGGAGCCAACGAAGCCGGACACGGCTTCACTGACCAGCGGCTGTCTAAGCC  
 GCAAGCTCTCAGCAAGTGGCCAGTGGAGCCTGCCGCCCCCACCTGGGCACCGGGACCCCCCTACCATCCAGTGGG  
 CCCGGAGAAACCTGATGAACAGTTTGGGGACTCAGGACCAGATGTCCGTCTCTCTTGCTTGAGGAATGAAGACCT  
 TTATTCACCCCTGCCCCGTGTGCTTCCCGCTGCACATGGACAGACTTCACAGCGTCTGCTCATAGGACCTGCATCC  
 TTCTGGGGACGAATTCACCTCGTCCAAGGGACAGCCACGGTCTGGAGGCCGAGGACCACCAGCAGGCAGGTGG  
 ACTGACTGTGTTGGGCAAGACCTCTTCCCTCTGGGCCTGTTCTCTTGCTGCAATAAGGACAGCAGCTGGTGCC  
 CCACCTGCCTGGTGCATTGCTGTGTGAATCCAGGAGGCAGTGGACATCGTAGGCAGCCACGGCCCCAGGTCCAGG  
 AGAAGTGTCTCCTGGAGGCAAGGACCACTGCTTCCCACTGGGGCCGGCGGGGGCCACGCACGACGTACGCCTCTT  
 ACCTTCCCGCTCGGCTAGGGGTCTCGGGATGCCGTCTGTGTCCAACCTCCTGTTCTGGGAGGTGGACATGCCT  
 CAAGGATACAGGGAGCCGGCGGCCTCTCGACGGCACGCACTTCTGTGGCTGCTGCGGCTGTGGGCGAGCATGG  
 GGGCTGCCAGCGTCTGTTGTGGAAGTAGCTGCTAGTGAAATGGCTGGGGCCGCTGGGGTCCGTCTTACACTGC  
 GCAGGTCTCTTCTGGGCGTCTGAGCTGGGGTGGGAGCTCCTCCGCAGAAGGTTGGTGGGGGGTCCAGTCTGTGAT  
 CTTGGTGTGTGTGCCCACTCCAGCCTGGGGACCCCACTTCAGAAGGTAGGGGCCGTGTCCCGCGGTGTGTGAC  
 TGAGGCCTGCTTCCCCCTCCCCCTCCTGCTGTGCTGGAATTCCACAGGGACCAGGGCCACCGCAGGGGACTGTCT  
 CAGAAGACTTGATTTTTTCCGTCCCTTTTTTCTCCACACTCCACTGACAAACGTCCCCAGCGGTTTCCACTTGTGGG



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**FIGURE 83B**

CTTCAGGTGTTTTCAAGCACAACCCACCACAACAAGCAAGTGCATTTTCAGTCGTTGTGCTTTTTTGTGTTTGTGC  
TAACGTCTTACTAATTTAAAGATGCTGTCGGCACCATGTTTATTTATTTCCAGTGGTCATGCTCAGCCTTGCTGC  
TCTGCGTGGCGCAGGTGCCATGCCTGCTCCCTGTCTGTGTCCCAGCCACGCAGGGCCATCCACTGTGACGTCGGC  
CGACCAGGCTGGACACCCTCTGCCGAGTAATGACGTGTGTGGCTGGGACCTTCTTTATTCTGTGTTAATGGCTAA  
CCTGTTACACTGGGCTGGGTTGGGTAGGGTGTTCTGGCTTTTTTGTGGGGTTTTTATTTTTAAAGAAACACTCAA  
TCATCCTAG

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**FIGURE 84**

MINPYRNLPLAIIISLPVTLVYVLTNLAYFTTLSTEQMLSSEAVAVDFGNYHLGVMSWIIPVFVGLSCFGSVNG  
SLFTSSRLFFVGSREGHLPSILSMIHPQLLTPVPSLVFTCVMTLLYAFSKDIFSVINFFSFFNWLCVALAIIIGMI  
WLRHRKPELERPIKVNALPVFFILACLFLIAVSFWKTPVECGIGFTIILSGLPVYFFGVWWKNKPKWLLQGIFS  
TTVLCQKLMQVVPQET

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**FIGURE 85**

AGGTCTCAGCCGGTCGTCGCGACGTTTCGCCCCGCTCGCTCTGAGGCTCCTGAAGCCGAACTAGCTAGACTTTTCCT  
 CCTTCCCGCCTGCCTGTAGCGGCGTTGTTGCCACTCCGCCACC**ATGT**TCGAGGCGCGCCTGGTCCAGGGCTCCAT  
 CCTCAAGAAGGTGTTGGAGGCACTCAAGGACCTCATCAACGAGGCCTGCTGGGATATTAGCTCCAGCGGTGTAAA  
 CCTGCAGAGCATGGACTCGTCCCACGCTCTTTTGGTGCAGCTCACCCCTGCGGTCTGAGGGCTTCGACACCTACCG  
 CTGCGACCGCAACCTGGCCATGGGCGTGAACCTCACCAGTATGTCCAAAATACTAAAATGCGCCGGCAATGAAGA  
 TATCATTACACTAAGGGCCGAAGATAACGCGGATACCTTGGCGCTAGTATTTGAAGCACCAAACCAGGAGAAAGT  
 TTCAGACTATGAAATGAAGTTGATGGATTTAGATGTTGAACAACCTTGAATTCCAGAACAGGAGTACAGCTGTGT  
 AGTAAAGATGCCTTCTGGTGAATTTGCACGTATATGCCGAGATCTCAGCCATATTGGAGATGCTGTTGTAATTTCT  
 CTGTGCAAAAGACGGAGTGAAATTTCTGCAAGTGGAGAACTTGGAAATGGAAACATTAAATTGTCACAGACAAG  
 TAATGTCGATAAAGAGGAGGAAGCTGTTACCATAGAGATGAATGAACCAGTTCAACTAACTTTTGCAGTGAAGTA  
 CCTGAACCTTCTTTACAAAAGCCACTCCACTCTCTTCAACGGTGACACTCAGTATGTCTGCAGATGTACCCCTTGT  
 TGTAAGATATAAAATTGCGGATATGGGACACTTAAATACTACTTGGCTCCCAAGATCGAGGATGAAGAAGGATC  
 TTAGGCATTCTTAAATTCAGAAAATAAACTAAGCTCTTTGAGAACTGCTTCTAAGATGCCAGCATATACTGA  
 AGTCTTTTCTGTACCAAATTTGTACCTCTAAGTACATATGTAGATATTGTTTTCTGTAAATAACCTATTTTTTT  
 TCTCTATTCTCTCCAATTTGTTTAAAGAATAAAGTCCAAAGTCTGATCTGGTCTAGTTAACCTAGAAGTATTTTT  
 GTCTCTTAGAAATACTTGTGATTTTTATAATACAAAAGGGTCTTGACTCTAAATGCAGTTTTAAGAAGTGTTTTT  
 GAATTTAAATAAAGTTACTTGAATTTCAAAC

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**FIGURE 86**

MFEARLVQGSILKKVLEALKDLINEACWDISSSGVNLQSMDSHVSLVQLTLRSEGFDTYRCDRNLAMGVNLTSM  
SKILKCAGNEDIITLRAEDNADTLALVFEAPNQEKVSDYEMKLMDLDVEQLGIPEQEYSCVVKMPSGEFARICRD  
LSHIGDAVVISCAKDGVKFSASGELGNGNIKLSQTSNVDKEEEAVTIEMNEPVQLTFALRYLNFFTKATPLSSTV  
TLMSADVPLVVEYKIADMGHLKYLLAPKIEDEEGS

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**FIGURE 87**

TAGCTAGGCAGGAAGTCGGCGCGGGCGGCGCGGACAGTATCTGTGGGTACCCGGAGCACGGAGATCTCGCCGGCT  
TTACGTTACCTCGGTGTCTGCAGCACCTCCGCTTCCTCTCCTAGGCGACGAGACCCAGTGGCTAGAAGTTCAC  
**CATG**TCTATTCTCAAGATCCATGCCAGGGAGATCTTTGACTCTCGCGGGAATCCCACTGTTGAGGTTGATCTCTT  
CACCTCAAAAGGTCTCTTCAGAGCTGCTGTGCCCAGTGGTGCTTCAACTGGTATCTATGAGGCCCTAGAGCTCCG  
GGACAATGATAAGACTCGCTATATGGGGAAGGGTGTCTCAAAGGCTGTTGAGCACATCAATAAACTATTGCGCC  
TGCCCTGGTTAGCAAGAACTGAACGTCACAGAACAAGAGAAGATTGACAACTGATGATCGAGATGGATGGAAC  
AGAAAATAAATCTAAGTTTGGTGCGAACGCCATTCTGGGGGTGTCCCTTGCCGTCTGCAAAGCTGGTGCCGTTGA  
GAAGGGGGTCCCCCTGTACCGCCACATCGCTGACTTGGCTGGCAACTCTGAAGTCATCCTGCCAGTCCCGGCGTT  
CAATGTCATCAATGGCGGTTCTCATGCTGGCAACAAGCTGGCCATGCAGGAGTTCATGATCCTCCCAGTCGGTGC  
AGCAAACCTTCAGGGAAGCCATGCGCATTGGAGCAGAGGTTTACCACAACCTGAAGAATGTCATCAAGGAGAAATA  
TGGGAAAGATGCCACCAATGTGGGGGATGAAGGCGGGTTTGCTCCCAACATCCTGGAGAATAAAGAAGGCCTGGA  
GCTGCTGAAGACTGCTATTGGGAAAGCTGGCTACACTGATAAGGTGGTTCATCGGCATGGACGTAGCGGCCTCCGA  
GTTCTTCAGGTCTGGGAAGTATGACCTGGACTTCAAGTCTCCCGATGACCCAGCAGGTACATCTCGCCTGACCA  
GCTGGCTGACCTGTACAAGTCCTTCATCAAGGACTACCCAGTGGTGTCTATCGAAGATCCCTTTGACCAGGATGA  
CTGGGGAGCTTGGCAGAAAGTTCACAGCCAGTGCAGGAATCCAGGTAGTGGGGGATGATCTCACAGTGACCAACCC  
AAAGAGGATCGCCAAGGCCGTGAACGAGAAGTCCTGCAACTGCCTCCTGCTCAAAGTCAACCAGATTGGCTCCGT  
GACCGAGTCTCTTCAGGCGTGCAAGCTGGCCCAGGCCAATGGTTGGGGCGTCATGGTGTCTCATCGTTCGGGGGA  
GACTGAAGATACCTTCATCGCTGACCTGGTTGTGGGGCTGTGCACTGGGCAGATCAAGACTGGTGCCCTTGCCG  
ATCTGAGCGCTTGGCCAAGTACAACCAGCTCCTCAGAATTGAAGAGGAGCTGGGCAGCAAGGCTAAGTTTGCCGG  
CAGGAACTTCAGAAACCCCTTGGCCAAG**TAA**GCTGTGGGCAGGCAAGCCCTTCGGTCACCTGTTGGCTACACAGA  
CCCCTCCCCTCGTGTGCTGAGCTCAGGCAGCTCGAGGCCCCCGACCAACACTTGCAAGGGTCCCTGCTAGTTAGCGCC  
CCACCGCCGTGGAGTTCGTACCGCTTCCTTAGAACTTCTACAGAAGCCAAGCTCCCTGGAGCCCTGTTGGCAGCT  
CTAGCTTTGCAGTCGTGTAATTGGCCCAAGTCATTGTTTTTCTCGCCTCACTTTCCACCAAGTGTCTAGAGTCAT  
GTGAGCCTCGTGTGCTATCTCCGGGGTGGCCACAGGCTAGATCCCCGGTGGTTTTGTGCTCAAAATAAAAAGCCTCA  
GTGACCCATGAG

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**FIGURE 88**

MSILKIHAREIFDSRGNPTVEVDLFTSKGLFRAAVPSGASTGIYEALERDNDKTRYMGKGVSKAVEHINKTIAP  
ALVSKKLVNTEQEKIDKLMIEMDGTENKSKFGANAILGVSLAVCKAGAVEKGVPLYRHIADLAGNSEVILPVPAF  
NVIINGGSHAGNKLAMQEFMILPVGAANFREAMRIGAEVYHNLKNVIKEKYGDATNVGDEGGFAPNILENKEGLE  
LLKTAIGKAGYTDKVVIGMDVAASEFFRSGKYDLDFKSPDDPSRYISPDQLADLYKSFIKDYPVVSIEDPFDQDD  
WGAWQKFTASAGIQVVGDDLTVTNPKRIAKAVNEKSCNCLLLKVNQIGSVTESLQACKLAQANGWGMVSHRSGE  
TEDTFIADLVVGLCTGQIKTGAPCRSERLAKYNQLLRIEEELGSKAKFAGRNFRNPLAK

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**FIGURE 89**

GGCTGAGGCAGTGGCTCCTTGACAGCAGCTGCACGCGCCGTGGCTCCGGATCTTCTTCGTCTTTGCAGCGTAGC  
CCGAGTCGGTCAGCGCCAGAGGACCTCAGCAGCC**ATGT**CGAAGCCCCATAGTGAAGCCGGGACTGCCTTCATTCA  
GACCCAGCAGCTGCACGCAGCCATGGCTGACACATTCCCTGGAGCACATGTGCCGCCTGGACATTGATTACCACC  
CATCACAGCCCGGAACACTGGCATCATCTGTACCATTGGCCAGCTTCCCGATCAGTGGAGACGTTGAAGGAGAT  
GATTAAGTCTGGAATGAATGTGGCTCGTCTGAACCTTCTCTCATGGAACATCATGAGTACCATGCGGAGACCATCAA  
GAATGTGCGCACAGCCACGAAAGCTTTGCTTCTGACCCCATCCTCTACCGGCCCCGTGCTGTGGCTCTAGACAC  
TAAAGGACCTGAGATCCGAACCTGGGCTCATCAAGGGCAGCGGCACTGCAGAGGTGGAGCTGAAGAAGGGAGCCAC  
TCTCAAAATCACGCTGGATAACGCCTACATGGAAAAGTGTGACGAGAACATCCTGTGGCTGGACTACAAGAACAT  
CTGCAAGGTGGTGGAAAGTGGGCAGCAAGATCTACGTGGATGATGGGCTTATTTCTCTCCAGGTGAAGCAGAAAGG  
TGCCGACTTTCCTGGTGACGGAGGTGGAAAATGGTGGCTCCTTGGGCAGCAAGAAGGGTGTGAACCTTCCTGGGGC  
TGCTGTGGACTTGCTGTGTGTCGGAGAAGGACATCCAGGATCTGAAGTTTGGGGTCGAGCAGGATGTTGATAT  
GGTGTTCGCTCATTTCATCCGCAAGGCATCTGATGTCCATGAAGTTAGGAAGGTCTTGGGAGAGAAGGGAAAGAA  
CATCAAGATTATCAGCAAAATCGAGAATCATGAGGGGGTTTCGGAGGTTTGATGAAATCCTGGAGGCCAGTGATGG  
GATCATGGTGGCTCGTGGTGATCTAGGCATTGAGATTCCCTGCAGAGAAGGTCTTCCCTTGCTCAGAAGATGATGAT  
TGGACGGTGCAACCGAGCTGGGAAGCCTGTCTGTGCTACTCAGATGCTGGAGAGCATGATCAAGAAGCCCCG  
CCCCACTCGGGCTGAAGGCAGTGATGTGGCAATGCAGTCCTGGATGGAGCCGACTGCATCATGCTGTCTGGAGA  
AACAGCCAAAGGGGACTATCCTCTGGAGGCTGTGCGCATGCAGAACCTGATTGCCCGTGAGGCAGAGGCTGCCAT  
CTACCACTTGCAATTATTTGAGGAACCTCGCCGCCTGGCGCCCATACCAGCGACCCACAGAAGCCACCGCCGT  
GGGTGCCGTGGAGGCCTCCTTCAAGTGCTGCAGTGGGGCCATAATCGTCCTACCAAGTCTGGCAGGTCTGCTCA  
CCAGGTGGCCAGATACCGCCACGTGCCCCCATCATTGCTGTGACCCGGAATCCCCAGACAGCTCGTCAGGCCCA  
CCTGTACCGTGGCATCTTCCCTGTGCTGTGCAAGGACCCAGTCCAGGAGGCCTGGGCTGAGGACGTGGACCTCCG  
GGTGAACCTTGCCATGAATGTTGGCAAGGCCCGAGGCTTCTTCAAGAAGGGAGATGTGGTCATTGTGCTGACCGG  
ATGGCGCCCTGGCTCCGGCTTCACCAACACCATGCGTGTTGTTCTGTGCCG**TGAT**GGACCCCAGAGCCCCCTCCT  
CCAGCCCCCTGTCCCACCCCCCTTCCCCCAGCCCATCCATTAGGCCAGCAACGCTTGTAAGAACTCACTCTGGGCTGT  
AACGTGGCACTGGTAGGTTGGGACACCAGGGAAGAAGATCAACGCCTCACTGAAACATGGCTGTGTTTGCAGCCT  
GCTCTAGTGGGACAGCCCAGAGCCTGGCTGCCCCATCATGTGGCCCCACCCAATCAAGGGAAGAAGGAGGAATGC  
TGGACTGGAGGCCCTGGAGCCAGATGGCAAGAGGGTGACAGCTTCCTTTCTGTGTGTACTCTGTCCAGTTCCT  
TTAGAAAAAATGGATGCCAGAGGACTCCCAACCCTGGCTTGGGGTCAAGAAACAGCCAGCAAGAGTTAGGGGCC  
TTAGGGCACTGGGCTGTTGTTCCATTGAAGCCGACTCTGGCCCTGGCCCTTACTTGCTTCTCTAGCTCTCTAGGC  
CTCTCCAGTTTGACCTGTCCCCACCCTCCACTCAGCTGTCCTGCAGCAAACTCCACCCCTCCACCTTCCATT  
TCCCCACTACTGCAGCACCTCCAGGCCTGTTGCCG

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**FIGURE 90**

MSKPHSEAGTAFIQTQQLHAAMADTFLEHMCRLDIDSPITARNTGIICTIGPASRSVETLKEMIKSGMNVARLN  
FSHGTHEYHAETIKNVRTATESFASDPILYRPVAVALDTKGPEIRTGLIKSGTAEVELKKGATLKITLDNAYME  
KCDENILWLDYKNICKVVEVGSKIYVDDGLISLQVKQKGADFLVTEVENGGSLGSKKGVNLPGAAVDLPVSEKD  
IQDLKFGVEQDVDMVFASFIRKASDVHEVRKVLGEKGKNIKIISKIENHEGVRRFDEILEASDGIMVARGDLGIE  
IPAEEKVFLAQKMMIGRCNRAGKPVICATQMLESMIKKPRPTRAEGSDVANAVLDGADCIMLSGETAKGDYPLEAV  
RMQNLIAREAEAAIYHLQLFEELRRLAPITSDPTEATAVGAVEASFKCCSGAIIVLTKSGRSAHQVARYRPRAP I  
IAVTRNPQTARQAHLYRGIFPVLCKDPVQEAWAEDVDLRVNFAMNVGKARGFFKKGDVVIVLTGWRPGSGFTNTM  
RVVPVP



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**FIGURE 91**

CCGAGGCCAAGTCCCGGGCGCTAGCCACCTCCACCCGCTCTTGCTCCTCTCCTCTAGGCCGTCGCTTTTCGG  
GTTCTCTCATCGCTTCGTCGTTTCGCCAATGTTTGAGGAGAAGGCCAGCAGTCCTTCAGGGAAG**ATGGG**AGGCGAG  
GAGAAGCCGATTGGTGCTGGTGAAGAGAAGCAAAAGGAAGGAGGCCAAAAAGAAGCAAGAAGGATCTGGAGAT  
GGAGGTCGAGCTGAGTTGAATCCTTGGCCTGAATATATTTACACACGCTCTTGAGATGTATAATATACTAAAAGCA  
GAACATGATTCCATTCTGGCAGAAAAGGCAGAAAAGATAGCAAGCCAATTAAAGTCACCTTGCCTGATGGTAAA  
CAGGTTGATGCGGAATCTTGGAAAACCTACCATATCAAATTGCCTGTGGAATTAGTCAAGGCCTGGCCGACAAC  
ACCGTTATTGCTAAAGTAAATAATGTTGTGTGGGACCTGGACCGCCCTCTGGAAGAAGATTGTACCTTGGAGCTT  
CTCAAGTTTGAGGATGAGGAAGCTCAGGCAGTGTATTGGCACTCTAGTGCTCACATAATGGGTGAAGGCATGGAA  
AGAGTCTATGGTGGATGTTTATGCTACGGTCCGCCAATAGAAAATGGATTCTATTATGACATGTACCTCGAAGAA  
GGGGGTGTGTCTAGCAATGATTTCTTCTCTGAGGCTTTGTGTAAGAAAATCATTAAAGAAAAACAAGCTTTT  
GAAAGACTGGAAGTTAAGAAAGAACTTTACTGGCAATGTTTAAAGTACAACAAGTTCAAATGCCGGATATTGAAT  
GAAAAGGTGAATACTCCAACCTACCACAGTCTATAGATGTGGCCCTTTGATAGATCTCTGCCGGGGTCTCATGTT  
AGACACACGGGCAAAATTAAGGCTTTAAAAATACACAAAAATTCCTCCACGTACTGGGAAGGCAAGCAGATATG  
GAGACTCTCCAGAGAATTTATGGCATTTCATTCCCAGATCCTAAAAATGTTGAAAGAGTGGGAGAAGTTCCAAGAG  
GAAGCTAAAAACCGAGATCATAGGAAAATTGGCAGGGACCAAGAACTATATTTCTTTCATGAAGTACAGCCCTGGA  
AGTTGCTTTTTTCTGCCAAAAGGAGTCTATATTTATAATGCACTTATTGAATTCATTAGGAGCGAATATAGGAAA  
AGAGGATTCCAGGAGGTAGTCACCCCAAACATCTTCAACAGCCGACTCTGGATGACCTCGGGCCACTGGCAGCAC  
TACAGCGAGAACATGTTCTCCTTTGAGGTGGAGAAGGAGCTGTTTGCCTGAAACCCATGAAGTCCCAGGACAC  
TCCTTATGTTTGATCATCGGCCAAGGTCCTGGCGAGAACTGCCTCTGCGGCTAGCTGATTTTGGGGGTCTTCAT  
AGGAACGAGCTGTCTGGAGCACTCACAGGACTCACCCGGGTACGAAGATTC AACAGGATGATGCTCACATATTC  
TGTGCCATGGAGCAGATTGAAGATGAAATAAAAGGTTGTTTGGATTTTCTACGTACGGTATATAGCGTATTTGGA  
TTTTCTTTTAACTAAACCTTTCTACTCGCCCGGAAAAATTCCTTGGAGATATCGAAGTATGGGATCAAGCTGAG  
AAACAACCTTGAAAACAGTCTGAATGAATTTGGTGAAAAGTGGGAGTTAACTCTGGAGATGGAGCTTTCTATGGC  
CCAAAGATTGACATACAGATTAAAGATGCGATTGGGCGGTACCACCAGTGTGCAACCATCCAGCTGGATTTCCAG  
TTGCCCATCAGATTAACTTACTTATGTAAGCCATGATGGTGAGGATAAGAAAAGGCCAGTGATTGTTTCATCGA  
GCCATCTTGGGATCAGTGGAAGAATGATTGCTATCTCACAGAAAACCTATGGGGGCAAATTGGCCCCCTTTTGG  
CTGTCCCCCTCGCCAGGTAATGGTAGTTCCAGTGGGACCAACCTGTGATGAATATGCCAAAACGTACGACAACAA  
TTCCACGATGCCAAATTCATGGCAGACATTGATCTGGATCCAGGCTGTACATTGAATAAAAAGATTGGAATGCA  
CAGTTAGCACAGTATAACTTCATTTTAGTTGTTGGTGAAAAAGAGAAAATCACTGGCACTGTTAATATCCGCACA  
AGAGACAATAAGGTCCACGGGGAACGCACCATTTCTGAACTATCGAGCGGCTACAGCAGCTCAAAGAGTTCCGC  
AGCAAACAGGCAGAAGAAGAATTT**TAAT**GAAAAAATTACCCAGATTGGCTCCATGGAAAAGGAGGAACAGCGTTT  
CCGTAAAATTGACTTTGTACTCGAAAACGTCAATTTATATTGAACTTGGAGGAGGAGTTTGGCAAAGTCTGAAAT  
AGGTCAACCTGCAGGCGTAACATTTTTGACCTAGTCAGTTTTTAAACAATGTGCATTTGAAGGAGTTAATTAAA  
AGAGAGCCAATAAAATGATTTTACTCATTTCAGTATCTGAGTACTGGAAGTGAAACATGAGGAATGCTTTAGTGTA  
ATGTGGGAGAACTTTTTGTAAATTTAATGCAATTGAAAAAGTTTTCAAATTCATTAAGATAACTAGAATTGGT  
TATGGTGTAACCCGAATTC

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**FIGURE 92**

MGGEKPIGAGEEKQKEGGKKKNKEGSGDGGRAELNPWEYIYTRLEMYNILKAEHDSILA EKA EKDSKPIKVTL  
PDGKQVDAESWKTPYQIACGISQGLADNTVI AKVNNVVWDLDRPLEEDCTLELLKFEDEEAQAVYWHSSAHIMG  
EGMERVYGGCLCYGPPIENGFYYDMYLEEGGVSSNDFSSLEALCKKIIKEKQAFERLEVKKETLLAMFKYNKFKC  
RILNEKVNTPTTTVYRCGPLIDLRCGPHVRHTGKIKALKIHKNSSTYWEGKADMETLQRIYGISFPDPKMLKEWE  
KFQEEAKNRDHRKIGRDQELYFFHELSPGSCFFLPKGVYIYNALIEFIRSEYRKRGFQEVVTPNIFNSRLWMTSG  
HWQHYSENMF SFEVEKELFALKPMNCPGHSLMFDHRPRSWRELPLRLADFGGLHRNELSGALTGLTRVRRFQDD  
AHIFCAMEQIEDEIKGCLDFLRTVYSVFGFSFKLNLSTRPEKFLGDI EVWDQAEKQLENSLNEFGEKWELNSGDG  
AFYGP KIDIQIKDAIGRYHQCATIQLDFQLPIRFNLTYVSHDGEDKKRPVIVHRAILGSVERMIAILTENYGGKL  
APFWLSPRQVMVVPVGPTCDEYAQNVRQQFHD AKFMADIDLDPGCTLNKKIRNAQLAQYNFILVVGEKEKITGTV  
NIRTRDNKVH GERTISETIERLQQLKEFRSKQAE EEF

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**FIGURE 93**

GGCACCGCGCGGGACGGAGCTTGGCTGTTGGTCGGTGGGTTCCTGTGCGGCGGCGGCCAAGGAGGAGGAGACACA  
GTTGGAGCAGCTCCGTGGGCTGACTGGGGCGAGGCCTCAGCAGCGCGAGCTTGAGTGCGGCGGAGCCTGCGGCGC  
CTTCCCCTGCGGGTGGGGACGAGCGGGCCCCGCGGCGTCATCGGCGGCGAGGAGCCGCCGCGCCTCGGCCTAGCA  
**TG**TCGGAAGCGGGCGAGGAGCAGCCCATGGAGACGACGGGCGCCACCGAGAACGGACATGAGGCCGTCCCCGAAG  
CGAGTCGCGGCGGGGCTGGACGGGCGCCGCGGCGGGGCTGGAGGCGCGACCGCCGCGCCCCGAGCGGGAATCA  
GAACGGCGCCGAGGGACCAGATCAACGCCAGCAAGAACGAGGAGGACGCGGGAAAAATGTTTCGTTGGTGGCCTGA  
GCTGGGATACTAGCAAAAAAGATTTAAAAGACTATTTTACTAAATTTGGAGAGGTCGTTGACTGTACAATAAAAA  
TGGATCCCAACACTGGACGGTCAAGAGGGTTTGGGTTTATCCTGTTCAAAGATGCAGCCAGTGTGGAGAAGGTCC  
TAGACCAGAAGGAGCACAGGCTGGATGGCCGTGTCATTGACCCTAAAAAGGCCATGGCTATGAAGAAGGACCCGG  
TCAAGAAAATCTTCGTTGGGGTCTGAATCCTGAAAGTCCCACTGAGGAAAAAGATCAGGGAGTACTTTGGCGAGT  
TTGGGGAGATTGAGGCCATTGAATTGCCAATGGATCCAAAGTTGAACAAAAAGCAGAGGTTTTGTGTTTATCACCT  
TTAAAGAAGAAGAACCCGTGAAGAAGGTTCTGGAGAAAAAGTTCCATACTGTCAGTGGAAGCAAGTGTGAGATCA  
AGGTGGCCAGCCCCAAAGAAGTCTATCAGCAGCAGCAGTATGGCTCTGGGGGCCGTGGAACCGCAACCGAGGGA  
ACCGAGGCAGCGGAGGTGGTGGTGGAGGTGGAGGTCAGAGTCAGAGTTGGAATCAGGGCTACGGCAACTACTGGA  
ACCAGGGCTACGGCTACCAGCAGGGCTACGGGCCTGGCTATGGCGGCTACGACTACTCGCCCTATGGCTATTACG  
GCTACGGCCCCGGCTACGACTACAGTCAGGGTAGTACAACTACGGCAAGAGCCAGCGACGTGGTGGCCATCAGA  
ATAACTACAAGCCATACT**TGA**GGCGGCCAAGGGAGCGACCAACTGATCGCACACATGCTTTGTTTGGATATGGAGT  
GAACACAATTATGTACCAAATTTAACTTGGCAAATTTCTATTGCCTGTCCCATGTGCATCTTATTTAAAATTTT  
CCCCATGGAAATCACTCTCCTGTTGACTATTTCCAGAGCTCTAGGTGTTTAGGCAGCGTGTGGTGTCTGAGAGGC  
CATAGCGCCATCATGGGCTGATTTTTATTACCAGGTCCCCCAGAAGCAGGTGAGAGGCTCTGCTTCCTGCTGCCG  
CTCTGCAGCCTGGACCTGTGGACCCTGGTTGTAAAGAGTAAATTGTATCTTAGGAAACCAGTGTACCTTTTTTT  
CACCTTTTAATTTTATATTATTGCGTCATACATTTCTGTAAACGGAAGTGTTAATTTTACTGTACTTTTTTGTA  
CCCCTTTTGGGAATCTAATGTATTGTAAGGTATTTTACACGTGTCCTGATTTTGCCACAACCTGGATATTGAAGC  
TATCCAAGCTTTTGAAATAAAATTTAAAAACCCCAAGCCTGGGTGAGTGTGGGAAAAAAAAAAAAAAAAA

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**FIGURE 94**

MSEAGEEQPMETT GATENGHEAVPEASRGRGWTGAAAGLEARPPRPRAGIRTAPRDQINASKNEEDAGKMFVGGL  
SWDTSKKDLKDYFTKFGEVVDCTIKMDPNTGRSRGFGF ILFKDAASVEKVLDQKEHRLDGRVIDPKKAMAMKKDP  
VKKIFVGGLNPESPTEEKIREYFGEFGEIEAIELPMDPKLNKRRGFVFITFKEEEPVKKVLEKKFHTVSGSKCEI  
KVAQPKVYQQQYGS GGRGNRNRGNRSGGGGGGGGQSQSWNQGYGNYWNQGYGYQQGYGPGYGGYDYSPLYGY  
GYGPGYDYSQGSTNYGKSQRRGGHQNNYPY

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**FIGURE 95**

GCCGGGGAAGTCATGCTCGCTTCACGGAGGCAATAGCTAGCCGGTGTCTGTGGGAGGTTATGTTTATTTGAGACT  
TCTCCATCGGGATCGCCTGGTGTCCCAAGTGTCCACTGGTACTGAGGTTTGTGCGCTGCCTTCTTGCC**ATGT**CT  
AACGAAGTAGAAACAAGTGCAACCAATGGTCAGCCGACCAACAGGCCGACCAAAAAGCACCCTCAAGAAGGAA  
AAAAAGAAAGGCCCTGAAAAGACAGATGAATATCTCCTAGCAAGGTTCAAAGGCGATGGCGTAAATATAAGGCC  
AAGCTGATTGGCATTGATGATGTGCCAGATGCAAGAGGGGATAAAATGAGCCAAGACTCTATGATGAACTAAAG  
GGAATGGCGGCACGTGGTCTCAGGGACAACACAAACAAAGGATCTGGGTCAACATTTCCCTTTCTGGGATA  
AAAATAATTGATGAGAAAAGTGGGGTAATAGAGCATGAACATCCAGTAAATAAGATTTCTTTTATTGCCCGTGT  
GTGACAGACAACCGGGCATTGGTTACGTGTGTGGAGGAGAAGGCCAGCATCAGTTTTTTACCATAAAAACCGGG  
CAACAGGCTGAACCATTAGTTGTTGATCTTAAAGACCTTTTTCAAGTTATCTATAATGTAAAGAAAAAGGAAGAA  
GAAAAGAAAAAGATAGAGGAAGCCAGCAAAGCAGTTGAGAATGGGAGTGAGGCCCTAAGGATTCTAGATGACCAA  
ACTAACAACTGAAATCGGGTGTGACCAGATGGATTTGTTTGGGGACATGTCTACACCTCCTGACCTAAATAGT  
CCAACAGAAAGCAAAGATATCCTGTTAGTGGATCTAACTCTGAAATCGACACCAATCAGAATTTCTTTAAGAGAA  
AATCCATTCTTAACAAACGGCATCACCTCCTGTTCTCTTCTCGACCAACGCCTCAGGCATCCTTCTTGCCCTGAA  
AATGCCTTTTCTGCCAATCTCAACTTCTTTCCACCCCTAATCCTGATCCTTTCCGTGACGATCCTTTACACAG  
CCAGACCAATCGACACCTTCTTCGTTTGATTCTCTCAATCTCCAGATCAGAAGAAAGAGAATTCGAGTAGCTCG  
TCTACTCCGCTGAGTAATGGGCCCCGTAATGGTGATGTTGACTACTTTGGTCAGCAATTTGACCAGATCTCTAAC  
CGGACTGGCAAACAGGAAGCTCAGGCAGGCCCATGGCCCTTTTCAAGTTCGCAAACCCAGCCAGCAGTGAGAACT  
CAAAATGGGGTATCTGAAAGAGAACAGAACGGCTTCTCTGTCAAATCCTCCCCGAACCTTTTTGTGGGAAGCCCT  
CCCAAAGGACTGTCCATACAGAATGGCGTAAAGCAGGACTTGGAAGCTCTGTCCAGTCTCACCACATGACTCC  
ATAGCCATTATCCCACCTCCACAAAGTACCAACCAGGAAGAGGCAGAAGGACTGCTAAGTCTTCAGCCAATGAC  
TTGCTTGTCATCAGACATCTTTGCTCCTCCCGTCTCAGAACCTTCAGGCCAGGCGTCACCCACAGGACAACCTACA  
GCCCTGCAGCCCCAACCTCTGGATCTCTTCAAAACAAGTGCTCCTGCCCCAGTGGGGCCCCCTGGTGGGTCTAGGT  
GGTGTAAGTGTCACTCCCTCAGGCAGGACCATGGAACACAGCATCTTTGGTCTTCAATCAGTCCCCTTCAATG  
GCTCCGGGAGCCATGATGGGTGGTCAACCTTCAGGTTTTAGTCAGCCCGTCATTTTTGGTACAAGTCCAGCTGTT  
TCAGGTTGGAACCAGCCTTCACCTTTGCAGCCTCAACTCCCCCTCCAGTGCCGTGTGTCTGGGGCCCTTCTGCA  
TCTGTGGCACCCAATGCTTGGTCAACAACAAGCCCTTTGGGGAATCCTTTTCAGAGCAATATTTTTCCAGCTCCT  
GCTGTGTCCACTCAGCCCCCATCCATGCACCTCTCTCCTGGTCACTCCTCCTCAGCCACCTCCCAGAGCTGGC  
CCTCCCAAGGACATCTCCAGTGATGCCTTCACTGCCTTAGACCCACTTGGGGATAAAGAGATCAAGGATGTGAAA  
GAAATGTTTAAGGATTTCCAAGTGCAGGACACCTGCTGTGCCCCGCGGAAGGGAGAGCAGACTTCTTCTGGG  
ACTTTGAGTGCCCTTGCCAGTTATTTCAACAGCAAGGTTGGCATTCTCAGGAGAATGCAGACCATGATGACTTT  
GATGCTAATCAACTATTGAACAAGATCAATGAACCACCAAGCCAGCTCCCAGACAAGTTTCCCTGCCAGTTACC  
AAATCTACTGACAATGCATTTGAGAACCCTTTCTTTAAAGATTCTTTTGGTTCATCACAAGCCTCTGTGGCTTCT  
TCTCAACCTGTATCTTCTGAGATGTATAGGATCCATTTGGAAATCCTTTTGCC**TAA**ATTCTGAAGTTGGTCTGC  
AGACCATCCAGAGGAATAAAAAGGTTGGCCTTAGTAGTCAAAAACAAAGCTGATAGCCAGACAGTTCTGATTTCT  
TGCCCTTGTTCCAGCTTTGACGTATTATCTGTTGCCTTATTTCTCATTGCCTCTTCTACTTGTAAATGCTTTTC  
ACTTTCTGTCTAGGTTAAAGCTAACTGAATCTATGGCTTTAAATAAATTAAGATCCTAACTCTCTAGCTTAAG  
TGTAATGAAGTACAGTAGTTTCCCTACTGAACCCTACCTCTTGTGTCCCTGGAACCTTCTAGAACACCTGCCTT  
CTACCCTCTGGTTGGGAGATGCAGCCACCACATCCCTTCATATCATACTGTTTTGAATAAATTTCAAATCCTTA  
TTGTTTCAAGATTGTTTGGGGGTTCTGTTTTCAGAGCATAAAACCTAAAGGTTATAGTAGAACAAGGCACCTTCTTA  
AAAGAAATCTTGCTTCAGACCATCAGTTACAGAGAATTTCTAAAGTAAATTAAGCAACTACAATTTCTCCTT  
AGACACTTTGGAATCTAACCACTTAAGGACCTTTTTAAAGAGATAGCTTCTCTTCTTCTGAAGATCAATTTCTC  
CCAAGGCCAAGATTGTCTTTTCTCCATTTCTTGCTAGCTATTGCAATGAGGGAAGAACATTATTATCTCTC  
CTCCCCTTTTTTTTCTGATTCTTTTTTCAGTCAGTTTTGCTCCTGGGTTCAAGTAGTATTACCACCCTTTCACAA  
GCAACAGACTCTCACAGGGCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 96**

MSNEVETSATNGQPDQQAAPKAPSKKEKKKGPEKTDEYLLARFKGDGVKYKAKLIGIDDVDPARGDKMSQDSMMK  
LKGMAARGRSQGQHKQRIWVNISLSGIKIIDEKTGVIEHEHPVNKISFIARDVTDNRAFGYVCGGEGQHQFFTIK  
TGQQAELVVDLKDLEFQVIYNVKKKEEEKKIEEASKAVENGSEALRILDDQTNKLKSGVDQMDLFGDMSTPPDL  
NSPTESKDILLVDLNSEIDTNQNSLRENPFLLNGITSCSLPRPTPQASFLPENAFSANLNFFFTPNPDPFRDDPF  
TQPDQSTPSSFDLSPDQKKENSSSSSTPLSNGPLNGDVDFGQQFDQISNRTGKQEAQAGPWPFSSSQTPAV  
RTQNGVSEREQNGFSVKSSPNPFVGSPPKGLSIQNGVKQDLESSVQSSPHDSIAIIPPPQSTKPGRGRRTAKSSA  
NDLLASDIFAPPVSEPSGQASPTGQPTALQPNPLDLFKTSAPAPVGPLVGLGGVTVTLPQAGPWNTASLVFNQSP  
SMAPGAMMGQPSGFSQPVIFGTSPAVSGWNQPSPF AASTPPPVPVWGPSASVAPNAWSTTSPLGNPFQSNIFP  
APAVSTQPPSMHSSLLVTPPQPPPRAGPPKDISSDAFTALDPLGDKEIKDVKEMFKDFQLRQPPAVPARKGEQTS  
SGTILSAFASYFNSKVGIPQENADHDDFDANQLLNKINEPPKPAPRQVSLPVTKSTDNAFENPFFKDSFGSSQASV  
ASSQPVSSSEMYRDPFGNPFA

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**FIGURE 97**

GCCGGGGAAGTCATGCTCGCTTCACGGAGGCAATAGCTAGCCGGTGTCTGTGGGAGGTTATGTTTATTTGAGACT  
TCTCCATCGGGATCGCCTGGTGTACCAAGTGTCCACTGGTACTGAGGTTTGCTGCCTGCCTTCTTGCC**ATG**TCT  
AACGAAGTAGAAACAAGTGCAACCAATGGTCAGCCGACCAACAGGCCGACCAAAAAGCACCCTCAAAGAAGGAA  
AAAAAGAAAGGCCCTGAAAAGACAGATGAATATCTCTAGCAAGGTTCAAAGGCGATGGCGTAAATATAAGGCC  
AAGCTGATTGGCATTGATGATGTGCCAGATGCAAGAGGGGATAAAATGAGCCAAGACTCTATGATGAACTAAAG  
GGAATGGCGGCACGTGGTTCGGTCTCAGGGACAACACAAACAAAGGATCTGGGTCAACATTTCCCTTTCTGGGATA  
AAAATAATTGATGAGAAAAGTGGGGTAATAGAGCATGAACATCCAGTAAATAAGATTTCTTTTATTGCCCCGTGAT  
GTGACAGACAACCGGGCATTTGGTTACGTGTGTGGAGGAGAAGGCCAGCATCAGTTTTTTACCATAAAAACCGGG  
CAACAGGCTGAACCATTAGTTGTTGATCTTAAAGACCTTTTTCAAGTTATCTATAATGTAAAGAAAAAGGAAGAA  
GAAAAGAAAAAGATAGAGGAAGCCAGCAAAGCAGTTGAGAATGGGAGTGAGGCCCTAAGGATTCTAGATGACCAA  
ACTAACAACTGAAATCGGGTGTGACCAGATGGATTTGTTTGGGGACATGTCTACACCTCCTGACCTAAATAGT  
CCAACAGAAAGCAAAGATATCCTGTTAGTGGATCTAAACTCTGAAATCGACACCAATCAGAATTCCTTAAGAGAA  
AATCCATTCTTAACAAACGGCATCACCTCCTGTTCTCTTCTCGACCAACGCCTCAGGCATCCTTCTTGCCGTAA  
AATGCCTTTTCTGCCAATCTCAACTTCTTTCCACCCCTAATCCTGATCCTTTCCGTGACGATCCTTTACACAG  
CCAGACCAATCGACACCTTCTTCGTTTGATTCTCTCAAATCTCCAGATCAGAAGAAAGAGAATTCGAGTAGCTCG  
TCTACTCCGCTGAGTAATGGGCCCCGTAATGGTGTGTTGACTACTTTGGTCAGCAATTTGACCAGATCTCTAAC  
CGGACTGGCAAACAGGAAGCTCAGGCAGGCCCATGGCCCTTTTCAAGTTCGCAAACCCAGCCAGCAGTGAGAACT  
CAAAATGGGGTATCTGAAAGAGAACAGAACGGCTTCTCTGTCAAATCCTCCCCGAACCTTTTGTGGGAAGCCCT  
CCCAAAGGACTGTCCATACAGAATGGCGTAAAGCAGGACTTGGAAGCTCTGTCCAGTCCTCACCACATGACTCC  
ATAGCCATTATCCCACCTCCACAAAGTACCAACCAGGAAGAGGCAGAAGGACTGCTAAGTCTTCAGCCAATGAC  
TTGCTTGCATCAGACATCTTTGCTCCTCCCGTCTCAGAACCTTCAGGCCAGGCGTCACCCACAGGACAACCTACA  
GCCCTGCAGCCCCAACCTCTGGATCTCTTCAAAACAAGTGCTCCTGCCCCAGTGGGGCCCCCTGGTGGGTCTAGGT  
GGTGTAAGTGTACACTCCCTCAGGCAGGACCATGGAACACAGCATCTTTGGTCTTCAATCAGTCCCCTTCAATG  
GCTCCGGGAGCCATGATGGGTGGTCAACCTTCAGGTTTTAGTCAGCCCGTCATTTTTGGTACAAGTCCAGCTGTT  
TCAGGTTGGAACAGCCTTCACCTTTGACGCTCAACTCCCCCTCCAGTGCTGTTGTCTGGGGCCCTTCTGCA  
TCTGTGGCACCCAATGCTTGGTCAACAACAAGCCCTTTGGGGAATCCTTTTTCAGAGCAATATTTTTCCAGCTCCT  
GCTGTGTCCACTCAGCCCCCATCCATGCACCTCTCTCCTGGTCACTCCTCCTCAGCCACCTCCCAGAGCTGGC  
CCTCCCAAGGACATCTCCAGTGATGCCTTCACTGCCTTAGACCCACTTGGGGATAAAGAGATCAAGGATGTGAAA  
GAAATGTTTAAGGATTTCCAAGTGGCGAGCCACCTGCTGTGCCCCGCGGAAGGGAGAGCAGACTTCTTCTGGG  
ACTTTGAGTGCCTTTGCCAGTTATTTCAACAGCAAGGTTGGCATTCTCAGGAGAAATGCAGACCATGATGACTTT  
GATGCTAATCAACTATTGAACAAGATCAATGAACCACCAAAGCCAGCTCCCAGACAAGTTTCCCTGCCAGTTACC  
AAATCTACTGACAATGCATTTGAGAACCCTTTCTTTAAAGATTCTTTTGGTTCATCACAAGCCTCTGTGGCTTCT  
TCTCAACCTGTATCTTCTGAGATGTATAGGGATCCATTTGGAATCCTTTTGCC**TAA**ATTCTGAAGTTGGTCTGC  
AGACCATCCAGAGGAATAAAAAGGTTGGCCTTAGTAGTCAAAAACAAAGCTGATAGCCAGACAGTTCTGATTTCT  
TGCCCTTGTTCCAGCTTTGACGTATTATCTGTTGCCTTATTTCTCATTGCCTCTTCTACTTGTAAGATGCTTTTC  
ACTTTCTGTCTAGGTTAAAGCTAACTGAATCTATGGCTTTAAATAAATTAAGATCCTAACTCTCTAGCTTAAG  
TGTAATGAAGTACAGTAGTTTCCCTACTGAACCCTACCTCTTGTGTCCCTGGAACCTTCTAGAACACCTGCCTT  
CTACCCTCTGGTTGGGAGATGCAGCCACCACATCCCTTCATATCATACTGTTTTGAATAAATTTTCAAATCCTTA  
TTGTTTCAAGAGTTGTTTGGGGTTCTGTTTTCAGAGCATAAAACCTAAAGGTTATAGTAGAACAAAGGCACCTTCTTA  
AAAGAAATCTTGCTTCAGACCATCAGTTACAGAGAATTTCTTAAAGTAAATTAAGCAACTACAATCTCTCCTT  
AGACACTTTGGAATCTAACCACTTAAGGACCTTTTTTAAAGAGATAGCTTCTCTTCTTTCTGAAGATCAATTTCTC  
CCAAGGCCAAGATTGTCTTTTCTCCCATTTCTTGCTAGCTATTGCAATGAGGGAAGAACATTATTCTCTCTC  
CTCCCTTTTTTTTCTGATTCTTTTTTCTAGTCAGTTTTGCTCCTGGGTTCAAGTAGTATTACCACCTTTTCAAA  
GCAACAGACTCTCACAGGGCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 98**

MSNEVETSATNGQPDQQAAPKAPSKKEKKKGPEKTDEYLLARFKGDGVKYKAKLIGIDDPDARGDKMSQDSMMK  
LKGMAARGRSQGQHKQRIWVNISLSGIKIIDEKTGVIEHEHPVNKISFIARDVTDNRAFGYVCGGEGQHQFFTIK  
TGQQAEPVLDLKDQFQVIYNVKKKEEEKKKIEEASKAVENGSEALRILDDQTNKLKSGVDQMDLFGDMSTPPDL  
NSPTESKDILLVDLNSIDTNQNSLRENPFITNGITSCSLPRPTQASFLPENAFSANLNFFPTPNPDPFRDDPF  
TQPDQSTPSSFDLSPDQKKENSSSSSTPLSNGPLNGDVDFGQQFDQISNRTGKQEAQAGPWPFSSTQTPAV  
RTQNGVSEREQNGFSVKSSPNPFVGSPPKGLSIQNGVKQDLESSVQSSPHDSIAIIPPPQSTKPGRGRRTAKSSA  
NDLLASDIFAPPVSEPSGQASPTGQPTALQPNPLDLFKTSAPAPVGPLVGLGGVTVTLPQAGPWNTASLVFNQSP  
SMAPGAMMGQPSGFSQPVIFGTSPAVSGWNQPSFFAASTPPPVVWGPSASVAPNAWSTTSPLGNPFQSNIFP  
APAVSTQPPSMHSSLLVTPPQPPPRAGPPKDISSDAFTALDPLGDKEIKDVKEMFKDFQLRQPPAVPARKGEQTS  
SGTLSAFASYFNSKVGIPQENADHDDFDANQLLNKINEPPKPAPRQVSLPVTKSTDNAFENPFFKDSFGSSQASV  
ASSQPVSEMYRDPFGNPFA



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**FIGURE 99**

AGCGCTCAGATACGCGACGCGTAGCAGGCGGGGACCGAACGGGTGCCTCAGTGTCTTCCCCTCCCCTCGCCTGG  
CCTCGCCGTCCTCTCCCCGAGCCGGACCGGAACATATGTGATCCCGGAAGTTCCGGGGCCCTTTGCTGTGTGGAT  
AAACAGTAATGGCGGAGGCTGCAACTCCCGGAACAACAGCCACAACATCAGGAGCAGGAGCGGCAGCGGCACGG  
CGGCAGCAGCCTCCCCACCCCGATCCCCACAGTCACCGCCCCGTCCCTGGGGGCGGGCGGAGGGGGCGGCGGCA  
GCGACGGCAGCGGCGGCGGCTGGACTAAACAGGTACCTGCAGGTATTTTATGCATGGGGTTTGTAAAGGAAGGAG  
ACAACGTGTCGCTACTCGCATGACCTCTCTGACAGTCCGTATAGTGTAGTGTGCAAGTATTTTCAGCGAGGGTACT  
GTATTTATGGAGACCGCTGCAGATATGAACATAGCAAACCATTTGAAACAGGAAGAAGCAACTGCTACAGAGCTAA  
CTACAAAGTCATCCCTTGCTGCTTCCCTCAAGTCTCTCATCGATAGTTGGACCACTTGTGAAATGAATACAGGCG  
AAGCTGAGTCAAGAAATTCAAACTTTGCAACTGTAGGAGCAGGTTGAGGAGCTGGGTGAATGCTATTGAGTTTG  
TTCCTGGGCAACCCTACTGTGGCCGTACTGCGCCTTCTGCACTGAAGCACCCCTGCAGGGCTCAGTGACCAAGG  
AAGAATCAGAGAAAGAGCAAACCGCCGTGGAGACAAAGAAGCAGCTGTGCCCTATGCTGCAGTGGGAGAGTGCC  
GATACGGGGAGAAGTGTGTATCTCCACGGAGATTCTTGTGACATGTGTGGGCTGCAGCTCCTGCATCCAATGG  
ATGCTGCCCAGAGATCGCAGCATATCAAATCGTGCATTGAGGCCCATGAGAAGGACATGGAGCTCTCATTTGCCG  
TGCAGCGCAGCAAGGACATGGTGTGTGGGATCTGCATGGAGGTGGTCTATGAGAAAGCCAACCCAGTGAGCGCC  
GCTTCGGGATCCTCTCCAAGTGAACCCACACCTACTGTCTCAAGTGCATTTCGCAAGTGGAGGAGTGCTAAGCAAT  
TTGAGAGCAAGATCATAAAGTCTTGCAGGAATGCCGGATCACATCTAACTTTGTCTTCCAAGTGAGTACTGGG  
TGGAGGAGAAAGAAGAGAAGCAGAACTCATTCTGAAATACAAGGAGGCAATGAGCAACAAGGCGTGCAGGTATT  
TTGATGAAGGACGTGGGAGCTGCCATTTGGAGGGAAGTGTTTTTACAAGCATGCGTACCCTGATGGCCGTAGAG  
AGGAGCCACAGAGACAGAAAGTGGGAACATCAAGCAGATACCGGGCCCAACGAAGGAACCACTTCTGGGAAGTCA  
TTGAGGAAAGAGAGAACAGCAACCCCTTTGACAACGATGAAGAAGAGTTGTACCTTTGAGCTGGGCGAGATGT  
TGCTTATGCTTTTGGCTGCAGGTGGGACGACGAACCTAACAGACTCTGAAGATGAGTGGGACTTGTTCATGATG  
AGCTGGAAGATTTTTATGACTTGGATCTATTAGCAACCTTGCGTGGCGTGTGAAGTGGTCTGCTGACCTCAGACAG  
CAGCTGTCCCCTGTGGTGGTGTGGCAGTGCCTGTGTTCTCTCCTAGGCAGGCCTCTCAACTCCAGGTGCTGTCTT  
AAGAATTTTTACCCAGGGCCTGTCTTCTCAACCCCTCACCTTTCCCTGAGGAGTGTGTTGTTTTCCCTGTTGAA  
AAAGTTACAAAAATAAATCTTAAAGTTAGTTTTTTGTAACACGAATTTAACTGTCAGACAGTTAGTGTAGGTGTG  
TTGCGTCTATCTGTTTTCAACCAGATTGCATTTATGGACTTTTCACACACTCATTTTGAGGACCCAGGTTCAAAA  
GTAAAGCAGTGGCCCTGCTTTGGGGTCCAAGAATAGGAGTGATGGGTGAAGGGACCTAAGCTGGCCAATAGCCC  
TCTGCCCCAGACATGGGATGTGGATCCTTGAGGTTTCTGGTGAAATCTGCACATCTGTGTTTTTATATCTGTTCC  
CTACCCTGTAATCCCTACCACGTGCACTTGTTCTGTGGTTTTGGTCTCTGTTTAATTGCACACAAGTAATACTA  
CTGGGTAACCAGAATCAGGTGTGAATGTGTTGAGATTTTTTACTGTTTTGCATGATAGGAAAATTGAGAAAGAAT  
ACGTATAAAAGATAGAGAGGCATAACATCAATGCAGAGTTGGAAGTTGGCTCCCAAGGGCTGACATGGTGTGAGT  
GTGTGGGTGTGTGATAAGCTTCTCATCCCTGCATAGATGCAGTATTCTTAGCCTTAGTAGAAAAACCTGGTTTAG  
TGGTTTAAGCCTTGTGTGGCAGATAGATCTTAAAGGGCAAAGCAGTATATTGGTAGTTGTCAATATAGCAGTGCT  
AGCTCTGTCTATATAAATAGAGAAATGGGGTTAGCCATAGAGGTTAAACTACCTGGTTATCCCATATAATAACA  
CAAACCTGGGTCTTGGATACACAGTTGTATTTAATGTTTTACGATCTAGCCTTCCAGTACAGGCACCTTCTGAGA  
AACCTTTGTCCTCACTTGAGGCATTTTGTGTGCGGTTTTTGTGTTTGTGTTTTGTGGGTATTTGCCTCATTCCAC  
CCCTGAGCTTTCAGGTAGACAGACGTGATTCAAACTCTGTTCTAAGGTGTTTATTGTAGTGGAGTAATGGGTTT  
GCAGTGATAAGTCATACTTTCCACCGAAAGGGAGGGCTTGGGAATCCCTGAGATTAGCTAAAGTTAAGTTGTTG  
GAAGAATTCCTTGATTGGAAATTGTACCTTTGTGTTTTGTGCTCTGTTTCCCTGAAAATAACTCGGGGATGCTCC  
TGGTTTGTCCATCTACTGCTTTGATTCCCTGGATCCCACCCATTCTTCACTTTAAGAAAAACAATAATTGTT  
GCAGAGGTCTCTGTATTTTGACGCTGCCCTTTTGTAAGAAGCACTTTCCCAAATAAAACAATTAACAAAAA  
AA

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**FIGURE 100**

MAEAATPGTTATTSGAGAAAATAAAASPTPIPTVTAPSLGAGGGGGGSDGSGGGWTKQVTCRYFMHGVCKEGDNC  
RYSHDLSDSPYSVVCKYFQRGYCIYGDRCRYEHSKPLKQEEATATELTTKSSLAASSSLSSIVGPLVEMNTGEAE  
SRNSNFATVGAGSEDWVNAIEFVPGQPYCGRTAPSCTEAPLQGSVTKEESEKEQTAVETKKQLCPYAAVGECRYG  
ENCVYLHGDSKCDMCGQLLLHPMDAAQRSQHIKSCIEAHEKDMELSFVQVRSKDMVCGICMEVVYEKANPSERRFG  
ILSNCNHTYCLKCIRKWRSAKQFESKIIKSCPECRITSNFVIPSEYWVEEKEEKQKLILKYKEAMSNKACRYFDE  
GRGSCPFGGNCFYKHAYPDGRREEPQRQKVGTSRRYRAQRRNHFWELEERENSNPFDNDEEEVVT FELGEMLLM  
LLAAGGDELTDSEDEWDLFHDELEDFYDLDL

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**FIGURE 101**

AGATGTTTAAAAATACTTTGATXCTCXGTTTCCACCTCTCTTAAATTGTCTTTCCCTATGTTAAATATACAGTCA  
TCACXTTGCTGAAAAAAGTTTCGCAATGAGAACAATCATCTAAAAXTGGCTGTAAGTACAGGTCAGGCGCGTTGCTC  
ATGCCTGTAATCCCACCACCTTTGGGAGGCCGAGGCAATTGGATCACCTGAGGTCAGGATTTTGAGACCAGCTTGA  
CCAACATGGTGAATCCCATCTCTACTAAAAATACAAAAAATTAGCCGGGTGTGGTGGCACACCCCTGTAATCCC  
ACCTACTCAGGAGGCTGAGGCAGGAAAATCCCTTGAACCCAGGAGGCAAAGGTTGCATTGAGCCGAAATAACACC  
ACTGCACTCCAGCCTGGACGATAGAGTGAGACCCCATCTCAAAAAAGAGCAGCTGTGACAAATGCCTGTATTGA  
ATTGCAGGTCAGTCTTCCACCTCCACTACCGGTGCCAAAAAAGGGCTGCCCAAAGGAAGCTAAAAGGGATCCA  
GCTTTGAATTCTGGTGTCTCTCAAAAGCCTGATCCTGCCAAAACCAAGAATCGCCGCAAAGGAAGCCATCCACT  
TCTGATGATTCTGACTCTAATTTTGAGAAAATTGTTTCGAAAGCAGTCACAAGCAAGGTGAGTGTGATCCTAGT  
CAGTCCCTTTTGCTGTAGATGTTCTGAAACACGTAACCTAAGCCATTGTTCTTAAAAATTTGGCATATCTTTAAGAA  
AATTAACCTCTCATATTCTGTTAGCTTTTACTGTACATATTTAGTTTTAAACAAGTTAAATATGCCACTTATTTGG  
CCAATGGAAGAGTTGGCCTTAGATCTGCTTCTTATTACTTGGTAGAAAAATAGAAACTCCTTGAATATAGTGTCT  
TGATACATTTTTTTTACATTACAATTATGTTGTGAGATTTACAATGTGCAAGTTACCTGGGCTTTTCTCTTTTAGA  
AATCCAAGGGGGAGAGTGATGACTTCCATATGGACTTTGACTCAGCTGTGGCTCCTCGGGCAAATCTGTACGGG  
CAAAGAAACCTATAAAGTACCTGGAAGAGTCAGATGAAGATGATCTGTTTTAAATGTGAGGCGATTATTTTAAG  
TAATTATCTTACCAAGCCCAAGACTGGTTTTAAAGTTACCTGAAGCTCTTAACCTCCTCCCTCTGAATTTAGTT  
TGGGGAAGGTGTTTTTAGTACAAGACATCAAAGTGAAGTAAAGCCCAAGTGTTCTTTAGCTTTTTATAATACTGT  
ATAAATAGTGACCATCTCATGGGCATTGTTTTCTTCTCTGCTTTGTCTGTGTTTTGAGTCTGCTTCTTTTGTCTT  
TAAACCTGATTTTTAAGTTCTTCTGAACTGTAGAAATAGCTATCTGATCACTTCAGCGTAAAGCAGTGTGTTTA  
TTAACCATCCACTAAGCTAAACTAGAGCAGTTTGATTTAAAGTGTCACCTCTCCTCCTTTTCTACTTTTCAGTA  
GATATGAGATAGAGCATAATTATCTGTTTTATCTTAGTTTTATACATAATTTACCATCAGATAGAACTTTATGGT  
TCTAGTACAGATACTCTACTACACTCAGCCTCTTATGTGCCAAGTTTTTCTTTAAGCAATGAGAAATTGCTCATG  
TTCTTCATCTTCTCAAATCATCAGAGGCCGAAGAAAAACACTTTGGCTGTGTCTATAACTTGACACAGTCAATAG  
AATGAAGAAAAATTAGAGTAGTTATGTGATTATTTAGCTCTTGACCTGTCCCCTCTGGCTGCCTCTGAGTCTGAA  
TCTCCCAAAGAGAGAAACCAATTTCTAAGAGGACTGGATTGCAGAAGACTCGGGGACAACATTTGATCCAAGATC  
TTAAATGTTATATTGATAACCATGCTCAGCAATGAGCTATTAGATTCAATTTGGGAAATCTCCATAATTTCAATT  
TGTAACCTTTGTTAAGACCTGTCTACATTGTTATATGTGTGTGACTTGAGTAATGTTATCAACGTTTTTGTAAT  
ATTTACTATGTTTTTCTATTAGCTAAATTCACAATTTTGTACTTTAATAAAATGTTCTAACATTGAAA

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**FIGURE 102**

TAGCTGGATTCCAGCCATTGCTGCAGCTGCTCCACAGCCCTTTTCAGGACCCAAACAACCGCAGCCGCTGTTCCC  
AGGATGGTGATCCGTGTATATATTGCATCTTCCTCTGGCTCTACAGCGATTAAGAAGAAACAACAAGATGTGCTT  
GGTTTCCTAGAAGCCAACAAAATAGGATTTGAAGAAAAAGATATTGCAGCCAATGAAGAGAATCGGAAGTGGATG  
AGAGAAAATGTACCTGAAAATAGTCGACCAGCCACAGGTTACCCCTGCCACCTCAGATTTTCAATGAAAGCCAG  
TATCGCGGGGACTATGATGCCTTCTTTGAAGCCAGAGAAAATAATGCAGTGTATGCCTTCTTAGGCTTGACAGCC  
CCACCTGGTTCAAAGGAAGCAGAAGTGCAAGCAAAGCAGCAAGCATGAACCTTAAGCACTGTGCTTTAAGCATCC  
TGAAAAATGAGTCTCCATTGCTTTTATAAAATAGCAGAATTAGCTTTGCTTCAAAGAAAATAGGCTTAATGTTGA  
AATAATAGATTAGTTGGGTTTTACATGCAAACATTCAAAATGAATACAAAATTTAAATTTGAACATTATGGTGA  
TTATGGTGAGGAGAATGGGATATTAACATAAAATTATATTAATAAGTAGATATCGTAGAAATAGTGTGTTACCT  
GCCAAGCCATCCTGTATACACCAATGATTTTACAAAGAAAACACCCTTCCCTCCTTCTGCCATTACTATGGCAAC  
TTAAGTGTATCTGCAGCTCTACATTA AAAAGGAGAAAAGAGAAATAACCTGTCTCTCATTCTTAAGTTGCCTCATT  
AATTTTCATGAACAAGAATATGTACCTTTTTTGATGCTATATTACTGCGATTAAAAAAGTTCTTGCAAGTAATGTT  
TATGTATAGTTAAACGTTTGAATTTCTTATCGTAATTATAACATTCCCATTCTTTGTAGATGAAACTCTACATAT  
GAACCACAGATTTTCTGAGCTTCTAAATGTAGCCTTTTCATTGCACATTTCAAGTATCAGAATAGATATCCTTTTA  
CACGCACAAAAGCAATAGATTTCATTCAAGTGGACAAGTTCCCTTGTTTAACTACACAGCTATGATGGAATCATATAT  
CCAAGTTCCCTTGCCCTCAGTGAAATATGCATATGTATATCATGAAGTGGGATGCCAAGTAAGCTTAAATGCATTC  
TCTAGCAAAGAGATTAGACTTTTAAATAACTCTTATAAAACAGGTTGGCGATCATTTCCCAAGATTGGTTTCCCT  
TGAGTTTTTGTAAAACAAATCTTAGTAGTTTTGCCCGTTTAAACAACCTCACAATCGTAAATGCTACTATTCCCT  
AAGATATCTTACCTTTTTATTTTCAAGTTTAGCCATGTATTGTATGAGTGTATTAGTCTAAGCAGTGAGAATCTTTT  
CTATGCCTCTATTCCAGCAAAAAGTAGAAGTATCAAATAAAAAGGGCAACTTTTAAATATTAAGCCTGAAGACT  
TCTAAAAAGACAAGAAACATGGCCTAAATAACCAACATAGATTTACATAGTAAGTTTCACACTACCTTATTACCA  
AAAGCAAACACCTCTTACTTTAACTACATTATCATGTATATCTATTGTATGCTGGTCTTTACTTTTTGCCAAAA  
TCAACATATAATGAAGAGATGCCTTTGTTTGATGAGATTCAAACCTTGATGCTATGCTTTAAATAAACTCAGTAC  
TTTTAGAAACATAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 103**

MVIRVYIASSSGSTAIAKKKQDVLGFLEANKIGFEEKDIAANEENRKMRENVPENS  
RGDYDAFFEARENNAVYAFLGLTAPPGSKEAEVQAKQQA

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**FIGURE 104**

GCCGCGCCGGCTCTGGGCACTCAGCATCGTTTCCTTTTCCTCCGCTGGAGCAGCT**ATG**GCGGCGGTGAAGACCTT  
GAACCCCAAGGCCGAGGTGGCCCGAGCGCAGGCGGCGCTGGCGGTCAACATCAGCGCAGCGGGGTCTGCAGGA  
CGTGCTAAGGACCAACCTGGGGCCCAAGGGCACCATGAAGATGCTCGTTTCTGGCGCTGGAGACATCAAACCTTAC  
TAAAGACGGCAATGTGCTGCTTCACGAAATGCAAATTC AACACCCAACAGCTTCCTTAATAGCAAAGGTAGCAAC  
AGCCAGGATGATATAACTGGTGATGGTACGACTTCTAATGTCCTAATCATTGGAGAGCTGCTGAAACAGGCGGA  
TCTCTACATTTCTGAAGGCCTTCATCCTAGATAATCACTGAAGGATTTGAAGCTGCAAAGGAAAAGGCCCTTCA  
GTTTTTGAAGAAGTCAAAGTAAGCAGAGAGATGGACAGGGAAACACTTATAGATGTGGCCAGAACATCTCTTCG  
TACTAAAGTTCATGCTGAACTTGCAGATGTCTTAACAGAGGCTGTAGTGGACTCCATTTTGGCCATTAAAAAGCA  
AGATGAACCTATTGATCTCTTCATGATTGAGATCATGGAGATGAAACATAAATCTGAACTGATACAAGCTTAAT  
CAGAGGGCTTGTTTTGGACCACGGAGCACGGCATCCTGATATGAAGAAAAGGGTGGAGGATGCATACATCCTCAC  
TTGTAACGTGTCATTAGAGTATGAGAAAACAGAAGTGAATTCTGGCTTTTTTACAAGAGTGCAGAAGAGAGAGA  
AAAACCTCGTGAAAGCTGAAAAGAAATTCATTGAAGATAGGGTTAAAAAATAATAGAAGCTGAAAAGGAAAGTCTG  
TGGCGATTTCAGATAAAGGATTTGTTGTTATTAATCAAAAGGGAATTGACCCCTTTTCCTTAGATGCTCTTTCAA  
AGAAGGCATAGTCGCTCTGCGCAGAGCTAAAAGGAGAAATATGGAGAGGCTGACTCTTGCTTGTTGGTGGGGTAGC  
CCTGAATTCCTTTTGACGACCTAAGTCCTGACTGCTTGGGACATGCAGGACTTGATATAGAGTATACATTGGGAGA  
AGAGAAGTTTACCTTTATTGAGAAATGTAACAACCTCGTTCTGTGCATTATTGATCAAAGGACCAAATAAGCA  
CACACTCACTCAGATCAAAGATGCAGTGAGGGACGGCTTGAGGGCTGTCAAAAATGCTATTGATGATGGCTGTGT  
GGTTCCAGGTGCTGGTGCCGTGGAAGTGGCAATGGCAGAAGCCCTGATTAAACATAAGCCAGTGTAAGGGCAG  
GGCACAGCTTGGAGTCCAAGCATTGCTGATGCATTGCTCATTATTCCCAAGGTTCTTGCTCAGAACTCTGGTTT  
TGACCTTCAGGAAACATTAGTTAAAATTCAAGCAGAACATTGAGAATCAGGTCAGCTTGTTGGGTGTGGACCTGAA  
CACAGGTGAGCCAATGGTGGCAGCAGAAGTAGGCGTATGGGATAACTATTGTGTAAAGAAACAGCTTCTTCACTC  
CTGCACTGTGATTGCCACCAACATTCTCTTGTTGATGAGATCATGCGAGCTGGAATGTCTTCTCTGAAAGGT**TG**  
**A**ATTGAAGCTTCCTCTGTATCTGAATCTTGAAGACTGCAAAGTGATCCTGAGGATTACAGCTGTGGAATTTTTGT  
CCAAGCTTCAAATAATTTTGAAAGAAATTTTCCCATATGAAAAAAGGAGAGAACTGGCATCTGTTGAAATTTG  
GAAGTTCTGAAATTATAGTATTTTTAAAAATTGCACTGAAGTGATACACATAAAGCAGGTCTTTTATCCAGTGA  
ACAGGATGTTTTGCTTTAGCAGCAGTGACATAAAATTCATGTTAGATAAGCATATGTTACTTACCTTGTTATTA  
AATATTTCTTGAAAAGCAAATTTTAAATGGTTAATTTTATGTGGACGTATGTTAAATTATCCAACTACCTATTG  
TTAAGCATTTGGTTTTAAATTTTTATGCTAATATAAATGCTCAAGTAATTTAAATATTGAAAGCATCCCTGTT  
GGTATAAATTTCTGAGTAAATGCATTGGATCAGTTGGACTTTGAACGCCCTTTGAAATGGCTTTGCTAAAATGCT  
CCCGCCACAAAGTTGTAGGAAATGGGAAGAGGAGTCAACTAGAGGCAAGGGAGTTGAGAGAGCTGCAACTGTAAA  
GGGCAAGAACAGGCAGAGGTAAAAAGATGATGGAAGGTGTGGTGAATAAGGGCCACGGTTATTGGGTGAAATTTG  
AGATGTAGGCCAACTGTATTTTCAAGCTTCTGAACTTAAGGCAAAATATTCATCGCAAAGTCTCTAGCGTCATAT  
TTTTCTCACCCAAATTACGTTTCCACGAGTTATTATATATAGTTGGTCTATCTCTGCAGTCCTTGAAGGTGAAGT  
TGTGTGTTACTAGGCTGTGTTTTGGGATGTCAGCAGTGGCCTGAAGTGAGTTGTGCAATAAATGTTAAGTTGAAA  
CCTCAAAAAAA

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**FIGURE 105**

MAAVKTLNPKAEVARAQAALAVNISAARGLQDVLRTNLGPKGTMKMLVSGAGDIKLTGDGNVLLHEMQIQHPTAS  
LIAKVATAQDDITGDGTTSNVLIIGELLKQADLYISEGLHPRIITEGFEEAKEKALQFLEEVKVSREMDRETLID  
VARTSLRTKVHAELADVLTEAVVDSILAIKKQDEPIDLFMIEIMEMKHKSETDTSIRGLVLDHGARHPDMKKRV  
EDAYILTCNVSLEYEKTEVNSGFFYKSAEEREKLVKAERKFIEDRVKKIIEKRVKVCSDKGFVVINQKGIDPF  
SLDALSKEGIVALRRARRNMRRLTACGGVALNSFDDLSPDCLGHAGLVYEYTLGEEKFTFIEKCNNPRSVTLL  
IKGPNKHTLTQIKDAVRDGLRAVKNAIDDGCVVPGAGAVEVAMAEALIKHKPSVKGRAQLGVQAFADALLIPKV  
LAQNSGFDLQETLVKIQAEHSESGQLVGVDLNTGEPMVAAEVGVWDNYCVKKQLLHSCVTIATNILLVDEIMRAG  
MSSLKG

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**FIGURE 106A**

GGCACGAGCGGCGGAGGCAGTGTCTCCCGGTCGCGCGTGGAGGTCGGTCGCTCAGAGCTGCTGGGCGCAGTTTCT  
CCGCCTGCTGCTTCGGCGCGGCTGTATCGGCGAGCGAGCGAGTTCCCGCGAGTTCTCGGTGGCGCTCCCCCTTC  
TTTCAGTCTCCACGGACTGGCCCCCTCGTCCTTCTACTTGACCGCTCCCGTCTTCCGCCGCTTCTGGCGCTTTCC  
GTTGGGCGGATTCCCGCCCGCTTCTCCTGCTTCCCATCGAAGCTCTAGAAATGAATGTTTCCATCTCTTCAGAG  
ATGAACCAGATTATGATGCATCATTATCACAGAAGAAATTCGTGTCTATAGCTTTTAAGGACTTGATTACATCAT  
TTTCAAGCCTGATAGTTTTTGAATCACCATTAGAGCTTAAGACACACCTGCCTTCATTTCAACCACCTGTCTTCA  
TACCCTGACGAAGTGCACCTTTTAACACTCCTTTGTCTTGGATTACTTAAGAGTTCCCGAGAAATACATTTGCCA  
CCAACAGAGTAGCCAAATTTATAAGGAAAAATGATTCCCAATGGATATTTGATGTTTGAGGATGAAAATTTTATT  
GAGTCTTCTGTTGCCAAATTAATGCCCTGAGGAAAAGTGGCCAGTTCTGTGATGTTTCGACTTCAGGTCTGTGGC  
CATGAAATGTTAGCACACAGAGCAGTGCTAGCTTGCTGCAGTCCCTATTTATTTGAAATCTTTAATAGTGATAGT  
GATCCTCATGGAATTTCTCACGTTAAATTTGATGATCTCAATCCAGAAGCTGTTGAAGTCTTGTTGAATTATGCC  
TACACTGCTCAGTTGAAAGCAGATAAGGAATTGGTAAAAGATGTTTATTCTGCAGCAAAAAAGCTGAAGATGGAT  
CGAGTAAAGCAGGTTTGTGGTGATTATTTACTGTCTAGAATGGATGTTACCAGCTGCATCTCTTACCGAAATTTT  
GCAAGTTGTATGGGAGACTCCCGTTTGTGAATAAGGTTGATGCTTATATTCAGGAGCATTGTGTACAAATTTCT  
GAAGAGGAGGAGTTTCTTAAGCTTCCAAGGCTAAAGTTGGAGGTAATGCTTGAAGATAATGTTTGCTTGCCAGC  
AATGGCAAATTATATACAAAGGTAATCAACTGGGTGCAGCGTAGCATCTGGGAGAATGGAGACAGTCTGGAAGAG  
CTGATGGAAGAGGTTCAAACCTTGACTACTCAGCTGATCACAAGCTGCTTGATGGGAACCTACTAGATGGACAG  
GCTGAGGTGTTTGGCAGTGATGATGACCACATTAGTTTGTGCAGAAAAAGCCACCAGTGAGAATGGCCATAAG  
CAGATAAGTAGCAGTTCAACTGGATGTCTCTCTTCTCCAAATGCTACAGTACAAAGCCCTAAGCATGAGTGGA  
ATCGTTGCTTCAGAAAAAGACTTCAAATAACACTTACTTGTGCTGGCTGTGCTGGATGGTATATTCTGTGTCTATT  
TTTCTTCATGGGAGAAACAGCCACAGAGCTCACCAACAAGTACTCCAAACTAAGTAAGAGTTTAAGCTTTGAG  
ATGCAACAAGATGAGCTAATCGAAAAGCCCATGTCTCCTATGCAGTACGCACGATCTGGTCTGGGAACAGCAGAG  
ATGAATGGCAAACCTCATAGCTGCAGGTGGCTATAACAGAGAGGAATGTCTTCGAACAGTCGAATGCTATAATCCA  
CATAACAGATCACTGGTCTTTTCTTGCTCCCATGAGAACACCAAGAGCCCGATTTCAAATGGCTGTACTCATGGGC  
CAGCTCTATGTGGTAGGTGGATCAAATGGCCACTCAGATGACCTGAGTTGTGGAGAGATGTATGATTCAAACATA  
GATGACTGGATTCTGTTCAGAAATTGAGAACTAACCGTTGTAATGCAGGAGTGTGTGCTCTGAATGGAAAGTTA  
TACATCGTTGGTGGCTCTGATCCATATGGTCAAAAAGGACTGAAAAATTGTGATGTATTTGATCCTGTAACAAAG  
TTGTGGACAAGCTGTGCCCTCTTAACATTTCGAGACACCAAGTCTGCAGTCTGTGAGCTTGGTGGTTATTTGTAC  
ATAATCGGAGGTGCAGAACTTGAATTGTCTGAACACAGTAGAACGATACAACTCCTGAAAATAATACCTGGACT  
TTAATTGCACCCATGAATGTGGCTAGGCGAGGAGCTGGAGTGGCTGTTCTTAATGGAAAACGTTTGTATGTGGT  
GGCTTTGATGGTTCTCATGCCATCAGTTGTGTGGAAATGTATGATCCAACCTAGAAATGAATGGAAGATGATGGGA  
AATATGACTTCACCAAGGAGCAATGCTGGGATTGCAACTGTAGGGAACACCATTTATGCAGTGGGAGGATTTCGAT  
GGCAATGAATTTCTGAATACGGTGGAAGTCTATAACCTTGAGTCAAATGAATGGAGCCCTATACAAAGATTTTC  
CAGTTTTTAAACAAATTTAAGACCCTCTCAAACCTAACAGGCTTAGTGATGTAATTATGGTTAGCAGAGGTACACTTG  
TGAATAAAGAGGGTGGGTGGGTATAGATGTTGCTAACAGCAACACAAAGCTTTTGATATTGCATACTATTAAAC  
ATGCTGTACATACTTTTTGGGTTTATTTGGAAAGGAATGCAAAGATGAAGGTCTGTTTTGTGTACTTTTAAGACT  
TTGGTTATTTTACTTTTTGGAAAAGAATAAACCAAGAATTGATTGGGCACATCATTTCAAGAAGTCCCTCTCCT  
CCACATTTGTTTTGCCAATTTGCACATTAAATGACTCTTCCCTCAAATGTGTACTATGGGGTAAAAGGGGTAGGG  
TTTAAAGATGTAGACAGTTGGGTTTTTTAAGGGCCCTTTTTCAATAACTGGAACACTCTATAACAAAGGATACTT  
ATTTAAATAGATGACATTGACTATTTTTGTTTTTATTTAAAGGAAGCTTACATGCCTACCAATATTTAATCTTTT  
ATGATTGCCTTTTTATAACTTTTTATATTCTCAGCAGAGTGCTTTACCAATTGAAGTAAAATGTGGCAGGCTGGA  
GTTATTGAAGCAGAGTGCGAGTCTTCAGTTTGCAGAGTAGGGGTCTGTCTTTTAACTCTGAGTGCAAACCTTCAG  
AGTTCCTTGCTTGGCTGCAGTTTTTTTCCCTTCAAGAATGCAGTACTAACATTTATTTGAGTGGAGTTACTGAACA  
GTAACATAGCTGTGATTTTTTGGTATTTGAAACACTGGTTTTAAATATTTTGACTTGTTGAGGGTATGTTTTATAT  
AGCAAGACATTATATAGCAGTAAAAAATGGTGTTTTATCTTCTATATAATCCTGTTTTTATTATTAAACAAACA  
GTCCTAAATAGCAGCCCTCAATTGTGAAAAAATTTACTTTAACTACATTAGGTTGTGAATGCAGGTTTTATCAG  
AACTATGTTTTTGTTCAGTTTATCTGTTTCATATGGATAAATATTGGTTGGGATGACTTGGTGTCTAATGTGTAGT  
GCTACACACCTAACTTATGGGGCCAAAATAGCATGCTCTAATGCTTGCTGCTGATTTAAACACATTAAAGGTACT



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**FIGURE 106B**

TTGCAGGAAATCCTTGCACCATGGGATTAATATCCAATTGCTGCTTGTACACTCATTCTACTAAAAGTTTTGA  
GAAATTTTTTTTTTCCAGTAATGAGCTTAAGAAATTTGTGGAAAATAACTCACCTGGCATCTTACATCTGAAATAA  
GGAATGATATAAGGTTTTTTTTTCTCACAGAAGATGAAGCACACAGGAACCTAATGGGCCAACTGGGATGAGGTG  
ACTATTCTGAGATGACTATTCAGTGGCTAACTTGGGTTAGGAAGAAAATAATTAGGTATTTTCTCCAAATGTTCA  
CTGGTACTCTGCCACTTTATTTCTCTCATCTGTTACACAAAGAACCACCAGGAAAGCAAATCAGTTTGGTTGGTA  
ACTCTGTAATTCCTAACTAICACTGGTTTGGTTCTGGACTAAAACCTACATTGACAGATTGAATTTGCCTAATATG  
ATGACTGTTTTTAATATGGATCTGTATGTGTTCTATTTCAGCCCAAGGAAATAAAATTTTAGTTGAGGATTCAAAA  
AAAAAAAAAAAA

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**FIGURE 107**

MIPNGYLMFEDENFIESSVAKLNALRKSGQFCDVRLQVCGHEMLAHRVILACCSPYLFEIFNSDSDPHGISHVKF  
DDLNPEAVEVLLNYAYTAQLKADKELVKDVYSAKKLMDRVKQVCGDYLLSRMDVTSCISYRNFASCMGDSRLL  
NKVDAYIQEHLLOISEEEFLKLPRLKLEVMLEDNVCLPSNGKLYTKVINWVQRSIWENGDSLEELMEEVQTLYY  
SADHKLLDGNLLDGQAEVFGSDDDHQFVQKKPPRENGHKQISSSSTGCLSSPNATVQSPKHEWKIVASEKTSNN  
TYLCLAVLDGIFCVIFLHGRNSPQSSPTSTPKLSKSLSFEMQQDELIEKPMSPMQYARSGLGTAEMNGKLIAGG  
YNREECLRTVECYNPHTDHSFLAPMRTPRARFQMAVLMGQLYVVGGSNHGSDDLSCGEMYDSNIDDWIPVPELR  
TNRCNAGVCALNGKLYIVGGSDPYGQKGLKNCDVFDPVTKLWTSCAPLNIRRHQSAVCELGGYLYIIGGAESWNC  
LNTVERYNPENNTWTLIAPMNVARRGAGVAVLNGKLFVCGGFDGSHAISCVEMYDPTRNEWKMMGNMTSPRSNAG  
IATVGNTIYAVGGFDGNEFLNTVEVYNLESNEWSPTYTKIFQF

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**FIGURE 108A**

CGAGACGGAAGCGGGCTGGGAGGCGTCGGCGGGCGGCAGCGCACGTGGTGACGTGCGAGGGGGTGCGGCGCGAGCG  
GTCGGCGGGCGGGCGGAGGCAGTGTCTCCCGGTCGCGCGTGGAGGTGCGTCTCAGAGCTGCTGGGCGCAGTTTCT  
CCGCCTGCTGCTTCGGCGCGGCTGTATCGGCGAGCGAGCGAGTTCCCGCGAGTTCTCGGTGGCGCTCCCCCTTC  
TTTCAGTCTCCACGGAAGTGGCCCCCTCGTCTTCTACTTGACCGCTCCCGTCTTCCGCCGCCCTTCTGGCGCTTTCC  
GTTGGGCGGATTCCCGCCCCGCTTCTCTGCTTCCCATCGAAGCTCTAGAAATGAATGTTTCCATCTCTTCAGAG  
ATGAACCAGATTATGATGCATCATTATCACAGAAGAAATTCGTGTCTATAGCTTTTAAGGACTTGATTACATCAT  
TTTCAAGCCTGATAGTTTTTGAATCACCATTAGAGCTTAAGACACACCTGCCTTCATTTCAACCACCTGTCTTCA  
TACCCTGACGAAGTGCACCTTTTAACACTCCTTTGTCCTTGGATTACTTAAGAGTTCCCAGAAATACATTTGCCA  
CCAACAGAGTAGCCAAATTTATAAGGAAAAATGATTCCCAATGGATATTTGATGTTTGAGGATGAAAATTTTATT  
GAGTCTTCTGTTGCCAAATTAATGCCCCTGAGGAAAAGTGGCCAGTTCTGTGATGTTGACTTCAGGTCTGTGGC  
CATGAAATGTTAGCACACAGAGCAGTGTAGCTTGCTGCAGTCCCTATTTATTTGAAATCTTTAATAGTGATAGT  
GATCCTCATGGAATTTCTCACGTTAAATTTGATGATCTCAATCCAGAAGCTGTTGAAGTCTTGTTGAATTATGCC  
TACACTGCTCAGTTGAAAGCAGATAAGGAATTGGTAAAAGATGTTTATTCTGCAGCAAAAAAGCTGAAGATGGAT  
CGAGTAAAGCAGGTTTGTGGTGATTATTTACTGTCTAGAATGGAATGTTACCAGCTGCATCTCTTACCGAAATTTT  
GCAAGTTGTATGGGAGACTCCCGTTTGTGAATAAGGTTGATGCTTATATTCAGGAGCATTTGTTACAAATTTCT  
GAAGAGGAGGAGTTTCTTAAGCTTCCAAGGCTAAAGTTGGAGGTAATGCTTGAAGATAATGTTTGCTTGCCGAGC  
AATGGCAAATATATACAAAGGTAATCAACTGGGTGCAGCGTAGCATCTGGGAGAATGGAGACAGTCTGGAAGAG  
CTGATGGAAGAGGTTCAAACCTTGTAATACTCAGCTGATCACAAGCTGCTTGATGGGAACCTACTAGATGGACAG  
GCTGAGGTGTTTGGCAGTGATGATGACCACATTCAGTTTGTGCAGAAAAAGCCACCACGTGAGAATGGCCATAAG  
CAGATAAGTAGCAGTTCAACTGGATGTCTCTCTTCTCAAATGCTACAGTACAAAGCCCTAAGCATGAGTGGAAA  
ATCGTTGCTTCAGAAAAAGACTTCAAATAACACTTACTTGTGCTGGCTGTGCTGGATGGTATATTCTGTGTCATT  
TTTCTTCATGGGAGAAACAGCCACAGAGCTCACCAACAAGTACTCCAAAATAAGTAAGAGTTTAAAGCTTTGAG  
ATGCAACAAGATGAGCTAATCGAAAAGCCCATGTCTCCTATGCAGTACGCACGATCTGGTCTGGGAACAGCAGAG  
ATGAATGGCAAACCTCATAGCTGCAGGTGGCTATAACAGAGAGGAATGTCTTCGAACAGTCGAATGCTATAATCCA  
CATACAGATCACTGGTCTCTTTCTTGCTCCCATGAGAACACCAAGAGCCCGATTTCAAATGGCTGTACTCATGGGC  
CAGCTCTATGTGGTAGGTGGATCAAATGGCCACTCAGATGACCTGAGTTGTGGAGAGATGTATGATTCAAACATA  
GATGACTGGATTCTCTGTTCCAGAATTGAGAACTAACCGTTGTAATGCAGGAGTGTGTGCTCTGAATGGAAAGTTA  
TACATCGTTGGTGGCTCTGATCCATATGGTCAAAAAGGACTGAAAAATTGTGATGTATTGATCCTGTAACAAAG  
TTGTGGACAAGCTGTGCCCTCTTAACATTCCGAGACACCAGTCTGCAGTCTGTGAGCTTGGTGGTTATTTGTAC  
ATAATCGGAGGTGCAGAATCTTGGAATTGTCTGAACACAGTAGAACGATACAATCCTGAAAATAATACCTGGACT  
TTAATTGCACCCATGAATGTGGCTAGGCGAGGAGCTGGAGTGGCTGTTCTTAATGGAAAACCTGTTTGTATGTGGT  
GGCTTTGATGGTTCTCATGCCATCAGTTGTGTGGAAATGTATGATCCAACCTAGAAATGAATGGAAGATGATGGGA  
AATATGACTTCACCAAGGAGCAATGCTGGGATTGCAACTGTAGGGAACACCATTTATGCAGTGGGAGGATTTCGAT  
GGCAATGAATTTCTGAATACGGTGGAAAGTCTATAACCTTGAGTCAAATGAATGGAGCCCCCTATACAAAGATTTTC  
CAGTTTTTAAACAAATTTAAGACCCTCTCAAACCTAACAGGCTTAGTGATGTAATTATGGTTAGTAGAGGTACACTTG  
TGAATAAAGAGGGTGGGTGGGTATAGATGTTGCTAACAGCAACACAAAGCTTTTGATATTGCATACTATTAAAC  
ATGCTGTACATACTTTTTTGGGTTTATTTGGAAAGGAATGCAAAGATGAAGGTCTGTTTTGTGTACTTTTAAGACT  
TTGGTTATTTTACTTTTTTGGAAAAAGATAAACCAAGAATTGATTGGGCACATCATTTCAAGAAGTCCCCCTCTCT  
CCACATTTGTTTTGCCAATTTGCACATTAAATGACTCTTCCCTCAAATGTGTACTATGGGGTAAAAGGGGTAGGG  
TTTAAAGATGTAGACAGTTGGGTTTTTTAAGGGCCCTTTTTCAATAACTGGAACACTCTATAACAAAGGATACTT  
ATTTAAATAGATGACATTGACTATTTTTGTTTTTATTTAAAGGAAGCTTACATGCCTACCAATATTTAATCTTTT  
ATGATTGCCTTTTTTATAACTTTTTATATTCTCAGCAGAGTGCTTTACCAATTGAAGTAAAAATGTGGCAGGCTGGA  
GTTATTGAAGCAGAGTGGCAGTCTTCAGTTTGCAGAGTAGGGGTCTGTCTTTTAAACTCTGAGTGCAAACCTTCAG  
AGTTCCTTGCTTGGCTGCAGTTTTTTTCCCTTCAAGAATGCAGTACTAACATTTATTTGAGTGGAGTTACTGAACA  
GTAACATAGCTGTGATTTTTTGGTATTTGAAACACTGGTTTTAAATATTTTACTTGTGAGGGTATGTTTTATAT  
AGCAAGACATTATATAGCAGTAAAAAATGGTGTTTTATCTTCTATATAATTCCTGTTTTTATTATTAAACAAACA  
GTCCTAAATAGCAGCCCTCAATTGTGAAAAAATTTACTTTAAACTACATTAGGTTGTGAATGCAGGTTTTATCAG  
AACTATGTTTTTGTTCAGTTTATCTGTTTCATATGGATAAATATTGGTTGGGATGACTTGGTGTCTAATGTGTAGT

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**FIGURE 108B**

GCTACACACCTAACTTATGGGGCCAAAATAGCATGTCCTAATGCTTGCTGCTGATTAAACACATTAAAGGTACT  
TTGCAGG

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**FIGURE 109**

MIPNGYLMFEDENFIESSVAKLNALRKSGQFCDVRLQVCGHEMLAHRVLAACCSPYLFEIFNSDSDPHGISHVKF  
DDLNPEAVEVLLNYAYTAQLKADKELVKDVYSAAKKLKMDRVKQVCGDYLLSRMDVTSCISYRNFA SCMGDSRLL  
NKVDAIYI QEHL LQISEEEEF LKLPRLKLEVMLEDNVCLPSNGKLYTKVINWVQRSIWENGDSLEELMEEVQTLYY  
SADHKLLDGNLLDGQAEVFGSDDDH IQFVQKKPPRENGHKQISSSSTGCLSSPNATVQSPKHEWKIVASEKTSNN  
TYLCLAVLDGIFCVIFLHGRNSPQSSPTSTPKLSKSLSFEMQQDELIKPMSPMQYARSGLGTAEMNGKLI AAGG  
YNREECLRTVECYNPHTDHWSFLAPMRTPRARFQMAVLMGQLYVVGGSNGHSDDLSCGEMYDSNIDDWIPVPELR  
TNRCNAGVCALNGKLYIVGGSDPYGQKGLKNCDVFDPVTKLWTSCAPLNIRRHQSAVCELGGYLYIIIGGAESWNC  
LNTVERYNPENNTWTLIAPMNVARRGAGVAVLNGKLFVCGGFDGSHAI SCVEMYDPTRNEWKMMGNMTSPRSNAG  
IATVGNTIYAVGGFDGNEFLNTVEVYNLESNEWSPTYTKIFQF

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**FIGURE 110**

GAGTTCCAGCAGTCCGCGAGCTGCCGTCCGCGGGGGGGCGGGCCGGGCACCCCGGGGCGCGGAGGAGCG  
CTCCTCGCTTCTCTCTCTTCCCCCTGCCGCACTCCGCCGACCCTCCCGCCGGCCCGCGCCGCTGCACTCGCCCT  
CTCCTCTCGCCCCCGGCAAACTTTCGGCCCCCTCCCGCCCCCTCGCCCGTTATTTCGTCTGTGGCTCAAGCCCGGCC  
ACGCCGCCCCAAGGGCTCCTCCCGACCTCCCGGCCTGCCGTCCGGCCACTGCGGGATCCAGAAACATGTCGACC  
ACACTTCTGTCCGCCTTCTACGATGTCGACTTCTTGTGCAAGACAGAGAAATCCCTGGCCAACCTCAACCTGAAC  
AACATGCTGGACAAGAAGGCGGTGGGGACGCCTGTGGCCGCCGCCCCCAGCTCGGGCTTCGCGCCGGGATTCTC  
CGACGGCACTCGGCCAGCAACCTGCATGCACTCGCCACCCCGCGCCAGCCCCGGCAGCTGCTCGCCCAAGTTC  
CCGGGCGCCGCTAACGGCAGCAGCTGCGGCAGCGCGCGGGCGGGTCCGACCTCCTACGGCACCCCTAAGGAG  
CCGTCCGGGGGGCGGGCGGCACAGCCCTGCTCAACAAGGAGAAATAATTCCGGGACCGCTCGTTTAGCGAGAACGGC  
GATCGCAGCCAGCACCTCCTGCACCTGCAGCAGCAGCAGAAGGGGGGGCGGGCGGCTCCAGATCAACTCCACGCGC  
TACAAGACCGAGCTGTGCCGGCCCTTCGAGGAGAGCGGCACGTGCAAGTACGGCGAAAAGTGCCAGTTTCGCGCAT  
GGCTTCCACGAGCTGCGCAGCCTGACTCGCCATCCGAAGTACAAGACCGAGCTGTGCCGCACCTTTCATACCATC  
GGCTTCTGCCCCATATGGGGCCGCGCTGCCACTTCATCCACAACCGCGACGAGCGGGCGGCCCGCGCCGTCCGGGGGGC  
GCCTCCGGGGACCTGCGTGCCCTTTGGCACGCGCGATGCGTTGCACCTGGGCTTCCCGCGGGAGCCGCGGCCCAAG  
TTGCACCACAGCCTCAGCTTCTCGGGCTTCCCGTCGGGCCACCATCAGCCCCCGGGCGGCCCTCGAGTCGCCGCTG  
CTGCTCGACAGCCCCACGTGCGGCACGCCGCCGCCCTCCTGCTCTTCGGCCTCGTCCTGCTCCTCCTCCGCC  
TCCTCCTGTTCTCGGCCCTCCGCGGCCTCCACGCCCTCGGGCGCCCCGACATGCTGCGCCTCCGCGGGCGGCCGCG  
GCTGCGGCCGCTCTGCTGTACGGCACCGGGGGCGCCGAGGACCTGCTGGCGCCGGGGGCCCCGTGCGCGGCCTGC  
TCGTCCGCCCTCGTGCGCAACAACGCCTTCGCCTTCGGTCCGGAGCTCAGCAGCCTCATCAGCCGCTCGCCATC  
CAGACCCACAACCTTTGCCGCCGTGGCCGCCGCCGCTACTACCGCAGTCAGCAGCAGCAGCAGCAGAGGGCCTG  
GCGCCCCCGCGCAGCCGCCGGCGCCGCCAGCGCGACCCTCCCCGCGGGGCGCCGCACCTCCCTCGCCGCC  
TTCAGCTTCCAGCTGCCGCGCCGCTGTCCGACTCGCCCGTGTTTCGACGCGCCCCCAGCCCCCGGACTCGCTG  
TCGGACCGCGACAGCTACCTAAGCGGCTCCCTGAGCTCCGGCAGCCTCAGCGGCTCTGAGTCTCCAGCCTCGAC  
CCTGGCCGCCGCTGCCAATCTTCAGCCGCCTCTCCATCTCCGACGACTGAGGCAAGAGGGCGCCAGTGAGGAGG  
AAGGGAAGGCGGTTAGAGATGTTGGAGGACACCCCTCGCCATCTCGCCCTTGCTGGGGGCACGGGAGTGGGGGG  
GGTGACATGGGCCCTAGGCAGACTGCAAGCCGACCGAGCACTTGGACTCGAACTCTGTGCCGGGAGGGGGCCCCC  
ACCCCTCCTTTTTTCGGTTTCTCTTGTCTTTTTTTTTTTTATTTTATTACGAAGTTTCATTCTTTTTGAGCAAAA  
AAGTCGAACTTTTTCTGTTGAACAAAATATTACAACAGGGCAGTTGTGATACGAATAGAACAAAAAAAAAAAAA  
AAACACTTAACTTTGTTAGGACTCCGATGAGTTTGGGACTTCAGGAAAAATCAACCCAGCACCAGCAGCTACCA  
ACCACCATTCATCTCTTCACTTGAACAGCATTAGTTAAGTCCAGATGTGGGAACCCCTCTCTTGAAGAAGTTC  
CTAATTGTGTCTCAGACCGGTGTAAACAAACCAGCCAGCCGCCACCTTGCTAAACCTATAAGCTTTTTAAATCC  
AATATATTCTGCCAAGAATATGCCTTGATAGTTAGCCCTCAGCCCATAGGTGTTTTTGTTTTTTAACAGAATTA  
TATATGTCTGGGGGTGAAAAAACCTTGCAATCCAAAGGTCCATACTGGTTACTTGGTTTCATTGCCACCACTTA  
GTGGATGTTTCAAGTTTAGAACCATTTTGTCTGCTCCCTCTGGAAGCCTTGCGCA

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**FIGURE 111**

MSTLLSAFYDVDFLCKTEKSLANLNLNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNLHALHPAPSPGSCS  
PKFPGAANGSSCGSAAAGGPTS YGTLKEPSGGGGTALLNKENKFRDRSFSENGDRSQHLLHLQQQQKGGGGSQIN  
STRYKTELCRPFEEESGTCKYGEKCQFAHGHELRSLTRHPKYKTELCRTFHTIGFCPYGPRCHF IHNADERRPAP  
SGGASGDLRAFGTRDALHLGFPREPRPKLHHSLSFSGFPSGHHQPPGGLESPLLLDSPTSRTPPPPSCSSASSCS  
SSASSCSSASAASTPSGAPTCASAAAAAALLYGTGGAEDLLAPGAPCAACSSASCANNAFAFGPELSSLITP  
LAIQTHNFAAVAAAAAYYRSQQQQQQQLAPPAQPPAPPSATLPAGAAAPPSPFFSFQLPRRLSDSPVFDAPPSP  
DSLSDRDSYLSGSLSSGSLSGSESPSLDPGRRLPIFSRLSISDD

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**FIGURE 112A**

CAGATTTACGAGGTTCTGTTCTAGTGCCAAAGGCTCTTGGTAGTAAATAGTGAGCAAAATAGATACCTGTCTCCT  
GATGGATCTTGCCAGCCCCNTCCNTATTTTTNTTAAAGTTATTTATTAAACCACACACACCTTGCAAAGAAAA  
GGGAAACTGGCAGTCTCTGTAGAGGAAGCCGGTGGCATCGCTCAGAGCCACAACTGTATTTCTAAACAGCCCTT  
TCCCTGGTTCCCTCTCTCCTGCCCCACTTTTTTTTAAATCCAGACTGTAAAAAACACATCTACTGACACTCACTT  
TACTTTAAAAAAGAAGAGAAAAAGTAAAGCGTTACAAGACTTTCCTCCTGGAACTATAAACTGAAAAAAAAT  
CCATAAAAGATTAAATCCTGGCGGGTTGTGGGGTGGCGGGGGCCGGCGGGGAGGGGGCGCGGAGTGAGATTGGC  
TCTCTGAGGTGGTCAGGGGCCCTGTGACAGCTTGGGACTTTCAGCACCTGGTTTGGGGTCATTTATCTGCTCAAC  
TGTCAGGACCCCCCACCACCAACCCAGCCACCAACACAACCATCGTAGAAGGGAACACAACACAGAGGGTCTT  
TTTTCATTTTTTTAAAAATCGGTTTGGTTGTGTTTTTGTTCATGGGGGAGCTTTAAACTCATTATTGCAA  
CACTAGTTCCATTTTTTCGCCAGGGTTCCAATAACACGGCATCATAAAGGCAACGCAACCCACAGTTCTCAAGACA  
TTTACCACGGTCACTACATCCGGCAGCGGGGTGGCCCCCTAGCTCCTGCTGCCCCCCCCGCCCTTCTCCCCGCCCG  
CCCCCGGAGCTCAGCCGATTCTGAGGCTCCAACCTTACCCACTCCCTCCCCGGGCGCGCGCCGCCGCGCCTTCC  
CCCATCTTACTCCCTCGAGGAGAGCCACAGGTTGCAATCCAACCAACCTCGCAATCTATTTTTGCAAAATCAC  
TCACAAAGATCTCCCTTTCGCGCCCCGCGCCCGCTCCTCCCGCGCCGGGTCCCTCAGCCACGGCCACAAAGTGCC  
CTTCTCTCCTCCTGAGTCTTGACATAAGGAACGCGGGCTGGGGCTCTGTTCTGTTCTTCTCCTCGCCCAAGGTAA  
GGACCTCGGGAATCTGAAGCCTGGCGTCCACTACGCTCAGGCCCCGAGTTCCCTTTTTACAGAGCTTGACCATG  
GGAAAAATAAAATAAAATTTAGGAAAGGGAGGCAACAGCCATTGGGAGCCAACACAGAGTCACGCAGCGCCAA  
AATACAAACACCGCAGCGGCCAGAAATCCCGCCACCTTCTCGTTCTCCAGGCTGTCTGTGAGGTTCCCTGA  
GTCCCCCGCACACTGAAAGGCATCGCAGGTGAGTGCGCACCCCTTCCACCCACCCCAAGAAGCCCTGTCCC  
GCCATCAGTCTCTCTCCTCGGGATGAGCAGGGAGAGCGCGCGGAGGTTCCCGACTCCCTCGACTACAACCAAGAA  
AGAATAATTTTCAAAGTGTTCAACATCCCCGCCCCCAAGCTCCCCAAAACACAGGGGCAGGGAACACCAAAACAC  
TCGGCTCTCGTTAGGAAGATCACGGCTCTGAAAGGAAATAGTAGACACGATACTTCATCTCATCTGGATTTATGA  
CCAAAAAACAACAAACAAACCCAAAGAGTTGCTTGCATTTTTTTCCTTCCAAATCTCGGTTTCGGCTCGAAGGC  
AGGGAATCTAAAAGACCGAGGCCGATGGAAGAGAGCCAGCGGGGCGAGCGAGCGGGCAGCCTCCCTTTTTGCCTC  
CCGGAGTCACCCGTTATTCTGTCGTGGCTCAAGCCCGGCCACGCCGCCCAAGGGCTCCTCCCGACCTCCCGGCCT  
GCCGCTCCGGCCACTGCGGGATCCAGAAACATGTCGACCACACTTCTGTCCGCCTTCTACGATGTCGACTTCTTG  
TGCAAGACAGAGAAATCCCTGGCCAACCTCAACCTGAACAACATGCTGGACAAGAAGGCGGTGGGGACGCCTGTG  
GCCGCCGCCCCCAGCTCGGGCTTCGCGCCGGGATTCTCCGACGGCACTCGGCCAGCAACCTGCATGCACTCGCC  
CACCCCGCGCCCAGCCCCGGCAGCTGCTCGCCCAAGTTCCCGGGCGCCGCTAACGGCAGCAGCTGCGGCAGCGCG  
GCGGCCGGCGGTCCGACCTCCTACGGCACCTTAAGGAGCCGTCGGGGGGCGGCGGCACAGCCCTGCTCAACAAG  
GAGAACAAATTCCGGGACCGCTCGTTTAGCGAGAACGGCGATCGCAGCCAGCACCTCCTGCACCTGCAGCAGCAG  
CAGAAGGGGGGCGGCGGCTCCAGATCAACTCCACGCGCTACAAGACCGAGCTGTGCCGGCCCTTCGAGGAGAGC  
GGCAGGTGCAAGTACGGCGAAAAGTGCCAGTTTCGCGCATGGCTTCACGAGCTGCGCAGCCTGACTCGCCATCCG  
AAGTACAAGACCGAGCTGTGCCGCACCTTTCATACCATCGGCTTCTGCCCTATGGGCCGCGTGCCACTTCATC  
CACAACGCGGACGAGCGGCGGCCCGCGCGCTCGGGGGGCGCCTCCGGGGACCTGCGTGCCCTTTGGCACGCGCGAT  
GCGTTGCACCTGGGCTTCCCGCGGGAGCCGCGGCCCAAGTTGCACCACAGCCTCAGCTTCTCGGGCTTCCCGTCCG  
GGCCACCATCAGCCCCGGGCGGCCTCGAGTCGCGCGTGTGCTGCTGACAGCCCCACGTGCGGCACGCCGCCGCCG  
CCCTCCTGCTCTTCGGCCTCGTCTGCTCCTCCTCCGCTCCTCCTGTTCTCTCGGCTCCGCGGCCTCCACGCC  
TCGGGCGCCCCGACATGCTGCGCCTCCGCGGCGGCCGCGGCTGCGGCCGCTCTGCTGTACGGCACCGGGGGCGCC  
GAGGACCTGCTGGCGCCGGGGGCCCCGTGCGCGGCCTGCTCGTCGGCCTCGTGCGCCAACAACGCCTTCGCCTTC  
GGTCCGGAGCTCAGCAGCCTCATCACGCCGCTCGCCATCCAGACCCACAACCTTTGCCGCCGTGGCCGCCGCCGCC  
TACTACCGCAGTCAGCAGCAGCAGCAGCAGCAGGCGCTGGCGCCCCCGCGCAGCCGCCGGCGCCGCCAGCGCG  
ACCCTCCCCGCCGGGGCGCCGCACCTCCCTCGCCGCCCTTCAGCTTCCAGCTGCCGCGCCGCTGTCCGACTCG  
CCCGTGTTCGACGCGCCCCCAGCCCCCGGACTCGCTGTGCGACCGCGACAGCTACCTAAGCGGCTCCCTGAGC  
TCCGGCAGCCTCAGCGGCTCTGAGTCTCCAGCCTCGACCCTGGCCGCCGCCCTGCCAATCTTCAGCCGCTCTCC  
ATCTCCGACGACTGAGGCAAGAGGGCGCCAGTGAGGAGGAAGGGAAGGCGGTTAGAGATGTTGGAGGACACCCC  
TCGCCATCTCGCCCTTGCTGGGGGCACGGGAGTGGGGGGGTGACATGGGCCCTAGGCAGACTGCAAGCCCGACC  
GAGCACTTGACTCGAACTCTGTGCCGGGAGGGGCCCCACCCCTCCTTTTTCGGTTTCCTCTTGTCTCTTTTTT



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**FIGURE 112B**

TTTATTTTTATTACGAAGTTTCATTCTTTTTGAGCAAAAAAGTCGAACTTTTCTGTTGAACAAAAATATTCACAA  
CAGGGCAGTTGTGATACGAATAGAACAAAAAGAAAAAAAACACTTAACTTTGTTAGGACTCCGATGAGTTT  
GGGACTTCAGGAAAAATCAACCCAGCACCAGCAGCTACCAACCACCATTCCATCTCTTCACTTGAACAGCATTAG  
TTAAGTCCAGATGTGGGAACCCCTTCTCTTGGAAGAAGTTCCTAATTGTGTCTCAGACCGGTGTAAACAAACCAGC  
CAGCCGCCACCTTGCTAAACCTATAAGCTTTTTAAAAATCCAATATATTCTGCCAAGAATATGCCTTGATAGTTAG  
CCCTCAGCCCATAGGTGTTTTTTGTTTTTAAACAGAATTATATATGTCTGGGGGTGAAAAAACCCTTGCATTCCA  
AAGGTCCATACTGGTTACTTGGTTTCATTGCCACCACCTTAGTGGATGTTTCAGTTTAGAACCATTTTGTCTGCTCC  
CTCTGGAAGCCTTGCGCAGAGCTTACTTTGTAATTGTTGGAGAATAACTGCTGAATTTTTAGCTGTTTTGAGTTG  
ATTTCGACCACCTGCACCACAACCTCAATATGAAAACCTATTTAACTTATTTATTATCTTGTGAAAAGTATACAATGA  
AAATTTTGTTCATACTGTATTTATCAAGTATGATGAAAAGCAATAGATATATATTCTTTTATTATGTTAAATTAT  
GATTGCCATTATTAATCGGCAAAATGTGGAGTGTATGTTCTTTTACAGTAATATATGCCTTTTGTAACCTTCACT  
TGTTTATTTTTATTGTAAATGAGTACAAAAATCTTAATTTAAGAGATTGTATGTAATATTTATTTTCAATTAATTTCT  
TTCCTTGTTTTACGTAAATTTTGAAAGATTGCATGATTTCTTGACAGAAATCGATCTTGATGCTGTGGAAGTAGTT  
TGAGGAACATCCTATGAGTTTTCTTAGAATGTATAAAGGTTGTAGCCCATCCAACCTTCAAAGAAAAAAATGACCA  
CATACTTTGCAATCAGGCTGAAATGTGGCATGCTTTTCTAATTCCAACTTTATAAACTAGCAAAAAAGTGTGTG  
TTATTCCACCAGTTCTACTGTGACATACTCGAGTATAAAGACATGTAGCAATAACGGGGAGTGGGGGGGAGTCT  
CACAGTGCCTTTGGAAGGGCCCCGAACCTGCCTTAAATCTTCCTCAACCAATAAGTATTTTATTAGTGCTTGAGA  
GAATCTGAATGTAGGATGGGTTCAACTGCACAAAAGGAAAAGATTTTTACCACCTTTTTTATATAGATATAAAGT  
GAAGCAACCGCCTTAGTGCTGAAATATGTAGTACATGAATATGCCTTGTTTAATTACAGAAAATTCCAAAACCTG  
TACTATTTTTTTTTTCCATGTAGAAAGGCAGGAATGTCTCCTAAGCTTTCTGGACAGCAGATGAATGAGCGGTA  
GCTTTAGTTTGTACGTAGGTACAGTTGGAGCACTATATGTACTCTCTGGACTACTTTGGACAGAAGTAGGTTTTT  
GAATGTAACAAGATAAGTCAACCTTGAGTTGTAATATATTTTGGGGAATCAGCTCACTACAAATTGTGACTGTAAA  
CATTGTACTGTAAATGTTTTGTAGTTTTCCCCCAATAAAATTTTTGGGAAAAAAGGTATTAACATGTAAGAGCT  
TTCTTTTTTAAACAGGAATGTCTTAGCTTTCTAGCTTCCCAGCTAACCATGTCTGCCATTCCCCAGGTCTTGCCAT  
GGTGGGGGAGGACTTGGAGAGCTGGCAGAGCCAGAGTTCAGAAGAGCCTGCGTCCTCTCAGCCCGTATATATTTT  
ATAAGCAAGTTCTTCTAATGAAAGAAAGTAATTATTTGGACTGTCAAGGGCATTAGTT

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**FIGURE 113**

MEESQRGERAGSLPFC LPESP VIRRGSSPATPPQGLLPTSRPAAPATAGSRNMSTLLSAFYDVDFLCKTEKSLA  
NLNLNNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNLHALAHPAPSPGSCSPKFPGAANGSSCGSAAAGGPTSY  
GTLKEPSGGGTALLNKENKFRDRSFSENGDRSQHLLHLQQQKGGGSQINSTRYKTELCRPFEEESGTCYGEK  
CQFAHGFHELRLTRHPKYKTELCRTFHTIGFCPYGPRCHF IHNADERRPAPSGGASGDLRAFGTRDALHLGFPR  
EPRPKLHHSLSFSGFPSGHHQPPGGLESPLLLDSPTSRTPPPPSCSSASSCSSASSCSSASAASTPSGAPTCCA  
SAAAAAAAALLYGTGGAEDLLAPGAPCAACSSASCANNAFAFGPELSSLITPLAIQTHNFAAVAAAAYRSQQQQ  
QQQGLAPPAQPPAPPSATLPAGAAAPPSPPF SFQLPRRLSDSPVFDAPPSPPDLSDRDSYLSGSLSSGSLSGSE  
SPSLDPGRRLP IFSRLSISDD

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**FIGURE 114**

GAGTTCCAGCAGTCCGCGAGCTGCCGTCCGCTCCGCGGGGGGGCGGGCCGGGCACCCCGGGGCGCGGAGGAGCG  
CTCCTCGCTTCTCTCTCTTCCCCCTGCCGCACTCCGCCGGACCCTCCCGCCGGCCCGCGCCGCTGCACTCGCCCT  
CTCCTCTCGCCCCCGGCAAACCTTTCGGCCCCCTCCCCGCCCTCGCCCGTTATTCGTCTGTGGCTCAAGCCCGGCC  
ACGCCGCCCCAAGGGCTCCTCCCAGCTCCCGGCTGCCGCTCCGGCCACTGCGGGATCCAGAAAC**ATGTCGACC**  
ACACTTCTGTCCGCCTTCTACGATGTGCACTTCTTGTGCAAGACAGAGAAATCCCTGGCCAACCTCAACCTGAAC  
AACATGCTGGACAAGAAGGCGGTGGGGACGCCTGTGGCCGCCGCCCCAGCTCGGGCTTCGCGCCGGGATTCTC  
CGACGGCACTCGGCCAGCAACCTGCATGCACTCGCCACCCCGCGCCAGCCCCGGCAGCTGCTCGCCCAAGTTC  
CCGGGCGCCGCTAACGGCAGCAGCTGCGGCAGCGCGGCGGCCGGTCCGACCTCCTACGGCACCTTAAGGAG  
CCGTCCGGGGGCGGCGGCACAGCCCTGCTCAACAAGGAGAACAAATTCGGGACCGCTCGTTTAGCGAGAACGGC  
GATCGCAGCCAGCACCTCCTGCACCTGCAGCAGCAGCAGAAGGGGGGCGGCGGCTCCCAGATCAACTCCACGCGC  
TACAAGACCGAGCTGTGCCGGCCCTTCGAGGAGAGCGGCACGTGCAAGTACGGCGAAAAGTGCCAGTTTCGCGCAT  
GGCTTCCACGAGCTGCGCAGCCTGACTCGCCATCCGAAGTACAAGACCGAGCTGTGCCGCACCTTTCATACCATC  
GGCTTCTGCCCTATGGGCGCGCTGCCACTTCATCCACAACCGCGACGAGCGGCGGCCCGCGCCGTCCGGGGGC  
GCCTCCGGGGACCTGCGTGCCTTTGGCACGCGCATGCGTTGCACCTGGGCTTCCCGCGGGAGCCGCGGCCCAAG  
TTGACACACAGCCTCAGCTTCTCGGGCTTCCCGTCGGGCCACCATCAGCCCCGGGCGGCCTCGAGTCGCCGCTG  
CTGCTCGACAGCCCCACGTGCGCACGCGCGCCGCCCTCCTGCTCTTCGGCCTCGTCTCTCTCTCTCCGCC  
TCCTCTGTTCCTCGGCCTCCGCGGCCTCCACGCCCTCGGGCGCCCCGACATGCTGCGCCTCCGCGGCGGCCGCG  
GCTGCGGCCGCTCTGCTGTACGGCACCGGGGGCGCCGAGGACCTGCTGGCGCCGGGGGGCCCGTGCAGCGCCCTGC  
TCGTCCGCCTCGTGCGCCAACAACGCCTTCGCCTTCGGTCCGGAGCTCAGCAGCCTCATCAGCCGCTCGCCATC  
CAGACCCACAACCTTTGCCGCCGTGGCCGCCGCGCCTACTACCGCAGTCAGCAGCAGCAGCAGCAGCAGGGCCTG  
GCGCCCCCGCGCAGCCGCCGGCGCCGCCAGCGCGACCCCTCCCCGCCGGGGCGCCGCACCTCCCTCGCCGCC  
TTCAGCTTCCAGCTGCCGCGCCGCTGTCCGACTCGCCCGTGTTCGACGCGCCCCCAGCCCCCGGACTCGCTG  
TCGGACCGCGACAGCTACCTAAGCGGCTCCCTGAGCTCCGGCAGCCTCAGCGGCTCTGAGTCTCCAGCCTCGAC  
CCTGGCCGCCGCTGCCAATCTTCAGCCGCCTCTCCATCTCCGACGAC**TGAGGCAAGAGGGCGCCAGTGAGGAGG**  
AAGGGAAGGCGGTTTACAGAGATGTTGGAGGACACCCCTCGCCATCTCGCCCTTGCTGGGGGACCGGAGTGGGGG  
GGTGACATGGGCCCTAGGCAGACTGCAAGCCCGACCGAGCACTGGACTCGAACTCTGTGCCGGGAGGGGGCCCC  
ACCCCTCCTTTTTTCGGTTTCTCTTGTCTTTTTTTTTTTTATTTTTATTACGAAGTTTCATTCTTTTTTGAAGAAAA  
AAGTCGAACCTTTTTCTGTTGAACAAAATATTACAACAGGGCAGTTGTGATACGAATAGAACAAAAAAAAAAAA  
AAACACTTAACTTTGTTAGGACTCCGATGAGTTTGGGACTTCAGGAAAAATCAACCCAGCACCAGCAGCTACCA  
ACCACATTCCATCTCTTCACTTGAACAGCATTAGTTAAGTCCAGATGTGGGAACCTTCTCTTGAAGAAGTTC  
CTAATTGTGTCTCAGACCGGTGTAAACAACAGCCAGCCGCCACCTTGCTAAACCTATAAGCTTTTTTAAATCC  
AATATATTCTGCCAAGAATATGCCTTGATAGTTAGCCCTCAGCCCATAGGTGTTTTTTTGTAAAAACAGAATTA  
TATATGTCTGGGGGTGAAAAACCCCTTGCAATCCAAAGGTCCATACTGTTACTTGGTTTCATTGCCACCACTTA  
GTGGATGTTTCAAGTTTAGAACCATTTTGTCTGCTCCCTCTGGAAGCCTTTCGCA

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**FIGURE 115**

MSTLLSAFYDVDFLCKTEKSLANLNLNNMLDKKAVGTPVAAAPSSGFAPGFLRRHSASNLHALAHPAPSPGSCS  
PKFPGAANGSSCGSAAAGGPTSYGTLKEPSGGGGTALLNKENKFRDRSFSENGDRSQHLLHLQQQQKGGGSQIN  
STRYKTELCRPFEESEGTCKYGEKCQFAHGFHELRLTRHPKYKTELCRTFHTIGFCPYGPRCHF IHNADERRPAP  
SGGASGDLRAFGTRDALHLGFPREPRPKLHHSLSFSGFPSGHHQPPGGLESPLLLDSPTSRTPPPPPSCSSASSCS  
SSASSCSSASAASTPSGAPTCASAAAAAALLYGTGGAEDLLAPGAPCAACSSASCANNAFAFGPELSSLITP  
LAIQTHNFAAVAAAAYYRSQQQQQQQLAPPAQPPAPPSATLPAGAAAPPSPFFSFQLPRRLSDSPVFDAPPSP  
DSLSDRDSYLSGSLSSGSLSGSESPSLDPGRRLP IFSRLSISDD

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**FIGURE 116**

AAAAGAAAAAAAAAAGATTTTTCTTCTCTTAATCGGAATCGTGATGGTGTGGATTATTTCAATGGTGGGGTT  
AATATAGCATGTTATCCTGTCTATCTTTTAAAGATTTCTGTATAAGACTGTTGAGCAGTTTTTAAAATAGTGTAG  
GATAATATAAAAAGCAGATAGATGGCGCTATGTTTGATTCTTACAACGAAATTATCACCAGCTTTTTTTCATTCT  
TAACTCTTTAAAGGATTCAAACGCAACTCAAATCTGTGCTGGACTTTAAAAAACAATTACAGGACCAAATTTTTT  
CTCAGTGTGTGTGTTTATTCCTTATAGGTGTAAATGAGAAGACGTGTTTTTTCCTTCACCGATGCTCCATCCTC  
GTATTTCTTTTTCTTGTAAATGTAATCAGATGCCATTTTATATGTGGACGTATTTATACTGGCCAAACATATTT  
TTTCTTTTGTCCCTTTTTTCTTTCTTTCTTTTACTTCCTTTATTTCTTATTCCTCCTTTCCNTTTTTNNNNN  
NNNNNNNNNNNNNNNNNNNNNNNNNNNNNGGTAGTTGTTGTTACCCACGCCATTTTACGTCTCCTTCACTGAAGGG  
CTAGAGTTTTAACTTTTAATTTTTTATATTTAAATGTAGACTTTTGACACTTTTAAAAAACAAAAAAGACAAGA  
GAGATGAAAACGTTTGATTATTTTCTCAGTGTATTTTTGTAAAAAATATATAAAGGGGGTGTAAATCGGTGTAA  
TCGCTGTTTGGATTTCTGATTTTATAACAGGGCGGCTGGTTAATATCTCACACAGTTTAAAAAATCAGCCCCTA  
ATTTCTCCATGTTTACACTTCAATCTGCAGGCTTCTTAAAGTGACAGTATCCCTTAACCTGCCACCAGTGTCCAC  
CCTCCGGCCCCCGTCTTGTA AAAAGGGGAGGAGAATTAGCCAAACACTGTAAGCTTTTAAGAAAAACAAAGTTTT  
AAACGAAATACTGCTCTGTCCAGAGGCTTTAAAACTGGTGCAATTACAGCAAAAAGGGATTCTGTAGCTTTAACT  
TGTAACCACATCTTTTTTGCACTTTTTTTATAAGCAAAAACGTGCCGTTTAAACCACTGGATCTATCTAAATGC  
CGATTTGAGTTCGCGACACTATGTACTGCGTTTTTCATTCTTGATTTGACTATTTAATCCTTTCTACTTGTGCGC  
TAAATATAATTGTTTTAGTCTTATGGCATGATGATAGCATATGTGTTTCAAGTTTATAGCTGTTGTGTTTAAAAAT  
TGAAAAAGTGGAACATCTTTGTACATTTAAGTCTGTATTATAATAAGCAAAAAGATTGTGTGTATGTATGTT  
TAATATAACATGACAGGCACTAGGACGTCTGCCTTTTTAAGGCAGTTCCGTTAAGGGTTTTTGTTTTTAACTTT  
TTTTTGCCATCCATCCTGTGCAATATGCCGTGTAGAATATTTGTCTTAAAATTCAAGGCCACAAAAACAATGTTT  
GGGGGAAAAAAAAAGAAAAATCATGCCAGCTAATCATGTCAAGTTCACTGCCTGTCAGATTGTTGATATATACCT  
TCTGTAAATAACTTTTTTGTAGAAGGAAATAAAATCAGCTGGAACGAACCCTAAAAAAATCTATGTCGGGTGC  
GGAGAAAGAGGTAATGAAATGGCA

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**FIGURE 117**

MRRRVFFLHRCSILVFLFPCKCNQMPFYMWTYLYWPNIFFLLSLFFFPFFLLPLFLIPPFXXXXXXXXXXXXX

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**FIGURE 118**

GGGCGCGCCAGAGACGCAGCCGCGCTCCCACCACCCACACCCACCGCGCCCTCGTTCGCCTCTTCTCCGGGAGCC  
 AGTCCGCGCCACCGCCGCGCCAGGCCATCGCCACCCTCCGCAGCC**ATGT**CCACCAGGTCCGTGTCCTCGTCCT  
 CCTACCGCAGGATGTTTCGGCGGCCCGGGCACC GCGAGCCGGCCGAGCTCCAGCCGGAGCTACGTGACTACGTCCA  
 CCCGCACCTACAGCCTGGGCAGCGCGCTGCGCCCCAGCACCAGCCGAGCCTCTACGCCTCGTCCCCGGGCGGCG  
 TGTATGCCACGCGCTCCTCTGCCGTGCGCCTGCGGAGCAGCGTGCCCCGGGTGCGGCTCCTGCAGGACTCGGTGG  
 ACTTCTCGCTGGCCGACGCCATCAACACCGAGTTCAAGAACACCCGCACCAACGAGAAGGTGGAGCTGCAGGAGC  
 TGAATGACCGCTTCGCCAACTACATCGACAAGGTGCGCTTCCTGGAGCAGCAGAATAAGATCCTGCTGGCCGAGC  
 TCGAGCAGCTCAAGGGCCAAGGCAAGTCGCGCCTAGGGGACCTCTACGAGGAGGAGATGCGGGAGCTGCGCCGGC  
 AGGTGGACCAGCTAACCAACGACAAAGCCGCGTCGAGGTGGAGCGCGACAACCTGGCCGAGGACATCATGCGCC  
 TCCGGGAGAAATTGCAGGAGGAGATGCTTCAGAGAGAGGAAGCCGAAAAACACCTGCAATCTTTCAGACAGGATG  
 TTGACAATGCGTCTCTGGCACGTCTTGACCTTGAACGCAAGTGGAATCTTTGCAAGAAGAGATTGCCTTTTTGA  
 AGAAACTCCACGAAGAGGAAATCCAGGAGCTGCAGGCTCAGATTCAGGAACAGCATGTCCAAATCGATGTGGATG  
 TTTCCAAGCCTGACCTCACGGCTGCCCTGCGTGACGTACGTACGCAATATGAAAGTGTGGCTGCCAAGAACCTGC  
 AGGAGGCAGAAGAAATGGTACAAATCCAAGTTTGCTGACCTCTCTGAGGCTGCCAACC GGAACAATGACGCCCTGC  
 GCCAGGCAAAGCAGGAGTCCACTGAGTACCGGAGACAGGTGCAGTCCCTCACCTGTGAAGTGATGCCCTTAAAG  
 GAACCAATGAGTCCCTGGAACGCCAGATGCGTGAAATGGAAGAGAACTTTGCCGTTGAAGCTGCTAACTACCAAG  
 AACTATTGGCCGCTGCAGGATGAGATTAGAATATGAAGGAGGAAATGGCTCGTCACCTTCGTGAATACCAAG  
 ACCTGCTCAATGTTAAGATGGCCCTTGACATTGAGATTGCCACCTACAGGAAGCTGCTGGAAGGCGAGGAGAGCA  
 GGATTTCTCTGCCTCTTCCAACTTTTCTCCCTGAACCTGAGGGAACTAATCTGGATTCACTCCCTCTGGTTG  
 ATACCCACTCAAAAAGGACATTCCTGATTAAGACGGTTGAACTAGAGATGGACAGGTTATCAACGAACTTCTC  
 AGCATCACGATGACCTTGAA**TAAAA**ATTGCACACACTCAGTGGCAGGCGATATATTACCCAGGCAAGAATAAAAA  
 AGAAATCCCATATCTTAAAGAAACAGCTTTCAAGTGCCCTTTCTGCAGTTTTTCAGGAGCGCAAGATAGATTTGGA  
 ATAGGAATAAGCTCTAGTTCTTAACAACCGACACTCCTACAAGATTTAGAAAAAGTTTACAACATAATCTAGTT  
 TACAGAAAAATCTTGTGCTAGAATACTTTTTAAAGGTATTTTGAATACCATTAAACTGCTTTTTTTTTTCCAG  
 CAAGTATCCAACCAACTTGTTCTGCTTCAATAAATCTTTGGAAAACTCCA

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**FIGURE 119**

MSTRSVSSSSYRRMFGGPGTASRPSSSRSYVTTSTRITYSLGSALRPSTSRSLYASSPGGVYATRSSAVRLRSSVP  
GVRLQLQDSVDFSLADAINTEFKNTRTNEKVELQELNDRFANYIDKVRFLQEQNKILLAELEQLKGQKSRLGDLY  
EEEMRELRRQVDQLTNDKARVEVERDNLAEDIMRLREKLQEEMLQREEAENTLQSFQDQVDNASLARLDLERKVE  
SLQEEIAFLKKLHEEEIQELQAQIQEQHVQIDVDVSKPDLTAALRDVRRQYESVAAKNLQEAEEWYKSKFADLSE  
AANRRNDALRQAKQESTEYRRQVQSLTCEVDALKGTNESLERQMREMEENFAVEAANYQDTIGRLQDEIQNMKEE  
MARHLREYQDLLNVKMALDIEIATYRKLLGEESRISLPLPNFSSLNLRETNLDSLPLVDTHSKRTFLIKTVETR  
DGQVINETSQHHDDLE



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**FIGURE 120**

TGCTGCTGAGGGTGGAGACCCACGAGCCGAGGCCTCCTGCAGTGTTCTGCACAGCAAACCGCACGCT**ATGGCTG**  
ACAGCCGGGATCCC GCCAGCGACCAGATGCAGCACTGGAAGGAGCAGCGGGCCGCGCAGAAAGCTGATGTCCTGA  
CCACTGGAGCTGGTAACCCAGTAGGAGACAACTTAATGTTATTACAGTAGGGCCCCGTGGGCCCCCTTCTTGTT  
AGGATGTGGTTTTACTGATGAAATGGCTCATTTTGACCGAGAGAGAATTCCTGAGAGAGTTGTGCATGCTAAAG  
GAGCAGGGGCCTTTGGCTACTTTGAGGTCACACATGACATTACCAAATACTCCAAGGCAAAGGTATTTGAGCATA  
TTGGAAAGAAGACTCCCATCGCAGTTCGGTTCTCCACTGTTGCTGGAGAATCGGGTTCAGCTGACACAGTTCGGG  
ACCCTCGTGGGTTTGCAGTGAAATTTACACAGAAGATGGTAACTGGGATCTCGTTGGAAATAACACCCCCATTT  
TCTTCATCAGGGATCCCATATTGTTTCCATCTTTTATCCACAGCCAAAAGAGAAATCCTCAGACACATCTGAAGG  
ATCCGGACATGGTCTGGGACTTCTGGAGCCTACGTCCTGAGTCTCTGCATCAGGTTTCTTTCTTGTTTCTGATC  
GGGGGATTCCAGATGGACATCGCCACATGAATGGATATGGATCACATACTTTCAAGCTGGTTAATGCAAATGGGG  
AGGCAGTTTATTGCAAATTCATTATAAGACTGACCAGGGCATCAAAAACCTTTCTGTTGAAGATGCGGCGAGAC  
TTTCCCAGGAAGATCCTGACTATGGCATCCGGGATCTTTTAAACGCCATTGCCACAGGAAAGTACCCCTCCTGGA  
CTTTTTACATCCAGGTCATGACATTTAATCAGGCAGAAACTTTTCCATTTAATCCATTTCGATCTCACCAAGGTTT  
GGCCTCACAAGGACTACCCTCTCATCCCAGTTGGTAAACTGGTCTTAAACCGGAATCCAGTTAATTACTTTGCTG  
AGGTTGAACAGATAGCCTTCGACCCAAGCAACATGCCACCTGGCATTGAGGCCAGTCTGACAAAATGCTTCAGG  
GCCGCTTTTTTGCTATCCTGACACTCACCGCCATCGCCTGGGACCCAATTATCTTCATATACCTGTGAAGTGT  
CCTACCGTGTCTGAGTGGCCAACTACCAGCGTGATGGCCGATGTGCATGCAGGACAATCAGGGTGGTGTCTCAA  
ATTACTACCCCAACAGCTTTGGTGCTCCGGAACAACAGCCTTCTGCCCTGGAGCACAGCATCCAATATTCTGGAG  
AAGTGCGGAGATTCAACACTGCCAATGATGATAACGTTACTCAGGTGCGGGCATTCTATGTGAACGTGCTGAATG  
AGGAACAGAGGAAACGTCTGTGTGAGAACATTGCCGGCCACCTGAAGGATGCACAAATTTTCATCCAGAAGAAAG  
CGGTCAAGAACTTCACTGAGGTCCACCTGACTACGGGAGCCACATCCAGGCTCTTCTGGACAAGTACAATGCTG  
AGAAGCCTAAGAATGCGATTACACCTTTGTGCAGTCCGGATCTCACTTGGCGGCAAGGGAGAAGGCAAATCTGT  
**G**AGGCCGGGGCCCTGCACCTGTGCAGCGAAGCTTAGCGTTTATCCGTGTAACCCGCTCATCACTGGATGAAGATT  
CTCCTGTGCTAGATGTGCAAATGCAAGCTAGTGGCTTCAAATAGAGAATCCCACTTTCTATAGCAGATTGTGTA  
ACAATTTTAAATGCTATTTCCCCAGGGGAAAATGAAGGTTAGGATTTAACAGTCATTTAAAAAAAAAATTTGTTTT  
GACGGATGATTGGATTATTCATTTAAATGATTAGAAGGCAAGTTTCTAGCTAGAAATATGATTTTATTTGACAA  
AATTTGTTGAAATTATGTATGTTTACATATCACCTCATGGCCTATTATATTAATAATATGGCTATAAATATATAAA  
AAGAAAAGATAAAGATGATCTACTCAGAAATTTTTATTTTTCTAAGGTTCTCATAGGAAAAGTACATTTAATACA  
GCAGTGTATCAGAAGATAACTTGAGCACCGTCATGGCTTAATGTTTATTCCTGATAATAATTGATCAAATTCAT  
TTTTTCTACTGGAGTTACATTAATGTTAATTCAGCACTGATTTCAACAGATCAATTTGTAATTGCTTACATTT  
TTACAATAAATAATCTGTACGTAAGAACA

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**FIGURE 121**

MADSRDPASDQM~~Q~~HWKEQRAAQKADVLTGAGNPVGDKLNVI TVGPRGPLLVDVFTDEMAHFDRERIPERVVH  
AKGAGAFGYFEVTHDITKYSKAKVFEHIGKKTPIAVRFSTVAGESGSADTVRDPRGFAVKFYTEDGNWDLVGNNT  
PIFFIRDPILFPSFIHSQKRN~~P~~QTHLKDPDMVWDFW~~S~~LRPESLHQVSFLFSDRGIPD~~G~~HRHMNGYGSHTFKLVNA  
NGEAVYCKFHYKTDQGIKNLSVEDAARLSQEDPDYGIRDLFNAIATGKYP~~S~~WTFYIQVMTFNQAETFPFNPFDLT  
KVWPHKDYPLIPVGKLV~~L~~NRNPVNYFAEVEQIAFDPSNMPPGIEASPDKMLQGR~~L~~FAYPDTHRHRLGPNYLHIPV  
NCPYRARVANYQRDGP~~M~~CMQDNQGGAPNYYPNSFGAPEQQPSALEHSIQYSGEVRRFNTANDDNVTQVRAF~~Y~~VNV  
LNEEQRKRLCENIAGHLKDAQIFIQKKAVKNFTEVHPDYGSHIQALLDKYNAEKPKN~~A~~IHTFVQSGSHLAAREKA  
NL

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**FIGURE 122**

ATCAGCGAGGGATTACAGGCGAAATGAGACTGTTTCGTGAGTGATGGCGTCCCGGGTTGCTTGCCGGTGCTGGCCG  
CCGCCGGGAGAGCCCGGGGCAGAGCAGAGGTGCTCATCAGCACTGTAGGCCCGGAAGATTGTGTGGTCCCCTTCC  
TGACCCGGCCTAAGGTCCCTGTCTTGACAGCTGGATAGCGGCAACTACCTCTTCTCCACTAGTGCAATCTGCCGAT  
ATTTTTTTTTGTTATCTGGCTGGGAGCAAGATGACCTCACTAACCAGTGGCTGGAATGGGAAGCGACAGAGCTGC  
AGCCAGCTTTGTCTGCTGCCCTGTACTATTTAGTGGTCCAAGGCAAGAAGGGGGAAGATGTTCTTGGTTTCAGTGC  
GGAGAGCCCTGACTCACATTGACCACAGCTTGAGTCGTGAGAACTGTCCTTTCCTGGCTGGGGAGACAGAATCTC  
TAGCCGACATTGTTTTGTGGGGAGCCCTATACCCATTACTGCAAGATCCCGCTACCTCCCTGAGGAGCTGAGTG  
CCCTGCACAGCTGGTTCAGACACTGAGTACCCAGGAACCATGTCAGCGAGCTGCAGAGACTGTACTGAAACAGC  
AAGGTGTCCTGGCTCTCCGGCCTTACCTCCAAAAGCAGCCCCAGCCCAGCCCCGCTGAGGGAAGGGCTGTACCA  
ATGAGCCTGAGGAGGAGGAGCTGGCTACCCCTATCTGAGGAGGAGATTGCTATGGCTGTTACTGCTTGGGAGAAGG  
GCCTAGAAAGTTTGCCCCCGCTGCGGCCCCAGCAGAATCCAGTGTTGCCCTGTGGCTGGAGAAAGGAATGTGCTCA  
TCACCAGTGCCCCCTCCCTTACGTCAACAATGTCCCCACCTTGGGAACATCATTGGTTGTGTGCTCAGTGCCGATG  
TCTTTGCCAGGTACTCTCGCCTCCGCCAGTGGAACACCCTCTATCTGTGTGGACAGATGAGTATGGTACAGCAA  
CAGAGACCAAGGCTCTGGAGGAGGACTAACCCCCAGGAGATCTGCGACAAGTACCACATCATCCATGCTGACA  
TCTACCGCTGGTTTAACATTTTCGTTTGATATTTTTGGTTCGACCACTCCACAGCAGACCAAAATCACCCAGG  
ACATTTTCCAGCAGTTGCTGAAACGAGGTTTTGTGCTGCAAGATACTGTGGAGCAACTGCGATGTGAGCACTGTG  
CTCGCTTCTGGCTGACCGCTTCGTGGAGGGCGTGTGTCCTTCTGTGGCTATGAGGAGGCTCGGGGTGACCAGT  
GTGACAAGTGTTGCAAGCTCATCAATGCTGTGAGCTTAAGAAGCCTCAGTGTAAGTCTGCCGATCATGCCCTG  
TGGTGCAGTCGAGCCAGCACCTGTTTCTGGACCTGCCTAAGCTGGAGAAGCGACTGGAGGAGTGTTGGGGAGGA  
CATTGCCTGGCAGTGACTGGACACCCAATGCCAGTTTATCACCCGTTCTTGGCTTCGGGATGGCCTCAAGCCAC  
GCTGCATAACCCGAGACCTCAAATGGGGAACCCCTGTACCCCTAGAAGGTTTTGAAGACAAGGTATTCTATGTCT  
GGTTTGATGCCACTATTGGCTATCTGTCCATCACAGCCAACTACACAGACCAGTGGGAGAGATGGTGAAGAACC  
CAGAGCAAGTGACCTGTATCAGTTCATGGCCAAAGACAATGTTCCCTTCCATAGCTTAGTCTTTCCTTGCTCAG  
CCCTAGGAGCTGAGGATAACTATACCTTGGTCAGCCACCTCATTGCTACAGAGTACCTGAACTATGAGGATGGGA  
AATTCTCTAAGAGCCGCGGTGTGGGAGTGTTTGGGGACATGGCCCAGGACACGGGGATCCCTGCTGACATCTGGC  
GCTTCTATCTGCTGTACATTCGGCCTGAGGGCCAGGACAGTGCTTTCTCCTGGACGGACCTGCTGCTGAAGAATA  
ATTCTGAGCTGCTTAACAACCTGGGCAACTTCATCAACAGAGCTGGGATGTTTGTGTCTAAGTTCTTTGGGGCT  
ATGTGCCTGAGATGGTGCTACCCCTGATGATCAGCGCCTGCTGGCCCATGTCACCCTGGAGCTCCAGCACTATC  
ACCAGCTACTTGAGAAGGTTCCGATCCGGGATGCCTTGCGCAGTATCCTCACCATATCTCGACATGGCAACCAAT  
ATATTAGGTGAATGAGCCCTGGAAGCGGATTAAAGGCAGTGAGGCTGACAGGCAACGGGCAGGAACAGTGACTG  
GCTTGGCAGTGAATATAGCTGCCTTGCTCTCTGTGTCATGCTTCAGCCTTACATGCCACGGTTAGTGCCACAATCC  
AGGCCAGCTGCAGCTCCCACTCCAGCCTGCAGTATCCTGCTGACAACTTCCTGTGTACCTTACCAGCAGGAC  
ACCAGATTGGCACAGTCAGTCCCTTGTTCCAAAATTGGAAAATGACCAGATTGAAAGTTTAAGGCAGCGCTTTG  
GAGGGGGCCAGGCAAAAACGTCCCGAAGCCAGCAGTTGTAGAGACTGTTACAACAGCCAAGCCACAGCAGATAC  
AAGCGCTGATGGATGAAGTGACAAAACAAGGAAACATTGTCCGAGAAGTGAAGCACAAAAGGCAGACAAGAAGC  
AGGTTGCTGCGGAGGTGGCGAAACTCTTGATCTAAAGAAACAGTTGGCTGTAGCTGAGGGGAAACCCCTGAAG  
CCCCTAAAGGCAAGAAGAAAAAGTAAAGACCTTGGCTCATAGAAAGTCACTTTAATAGATAGGGACAGTAATAA  
ATAAATGTACAATCTCTATA

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**FIGURE 123**

MRLFVSDGVPGLPVLAAAGRARGRAEVLSTVGPEDCVVPFLTRPKVPVLQLDSGNYLFSTSAICRYFFLLSGW  
EQDDL TNQWLEWEATELQPALSAALYYLVVQGKKGEDVLGSVRRAL THIDHSLSRQNC PFLAGETESLADIVLWG  
ALYPLLQDPAYLPEELSALHSWFQTLSTQEPCQRAAETVLKQQGV LALRPYLQKQPQSPAEGRAVTNEPEEEEL  
ATLSEEEIAMAVTAWEKGLESLPPLRPQQNPVLPVAGERNVLITSALPYVNNVPHLGNIIGCVLSADV FARYSRL  
RQWNTLYLCGTDEYGTATETKALEEGLTPQEICDKYHIIHADIYRWFNISFDIFGRITTPQQTKITQDIFQQLK  
RGFVLQDTVEQLRCEHCARFLADRFVEGVCPFCGYEEARGDQCDKCGKLINAVELKKPQCKVCRSCPVVQSSQHL  
FLDLPKLEKRLEEWLGRTLPGSDWTPNAQFITRSWLRDGLKPRCITRDLKWGTPVPLEGFEDKV FYVWFDATIGY  
LSITANYTDQWERWWKNPEQVDLYQFMAKDNVPFHSLVFPC SALGAEDNYTLVSHLIATEYLYNEDGKF SKSRGV  
GVFGDMAQDTGIPADIWRFYLLYIRPEGQDSAFSWTDLLLKNNSELLNNLGNFINRAGMFVSKFFGGYVPEMVL T  
PDDQRLLAHV TLELQHYHQLLEKVRIRDALRSILTISRHGNQYIQVNEPWKRIKGSEADRQRAGTVTGLAVNIAA  
LLSVMLQPYMPTVSATIQAQLQLPPPAC SILLTNFLCTLPAGHQIGTVSPLFQKLENDQIESLRQRFGGGQAKTS  
PKPAVVETVTTAKPQQIQALMDEVTKQGNIVRELKAQKADKNEVA AEVAKLLDLKKQLAVAEGKPPEAPKGKKKK

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**FIGURE 124**

ATTCTGAACCCCGTTCGCGCCCTTTTGTGCGTCAACGGGTGGCGGGCGCGGGAAGGGGATTGGATTGTTGCGCCTCT  
GCTCTGAAGAAAGTGCTGTCTGGCTCCAACCTCCAGTTCTTTCCCTGAGCAGCGCTGGAACCTAACCTTTCCCA  
CTCTGTACCTTCTCGATCCCGCCGGCGCTTTAGAGCCGCAGTCCAGTCTTGGATCCTTCAGAGCCTCAGCCACT  
AGCTGCGAATGCATGTGATCAAGCGAGATGGCCGCCAAGAACGAGTCATGTTTGACAAAATTACATCTCGAATCCA  
GAAGCTTTGTTATGGACTCAATATGGATTTTGTGATCCTGCTCAGATCACCATGAAAGTAATCCAAGGCTTGTA  
CAGTGGGGTACCACAGTGGAACTAGATACTTTGGCTGCTGAAACAGCTGCAACCTTGACTACTAAGCACCCCTGA  
CTATGCTATCCTGGCAGCCAGGATCGCTGTCTCTAACTTGACAAAAGAAACAAAGAAAGTGTTTCAGTGATGTGAT  
GGAAGACCTCTATAACTACATAAATCCACATAATGGCAAACACTCTCCCATGGTGGCCAAGTCAACATTGGATAT  
TGTTCTGGCCAATAAAGATCGCCTGAATTCTGCTATTATCTATGACCGAGATTTCTCTTACAATTACTTCGGCTT  
TAAGACGCTAGAGCGGTCTTATTTGTTGAAGATCAATGGAAAAGTGGCTGAAAGACCACAACATATGTTGATGAG  
AGTATCTGTTGGGATCCACAAAGAAGACATTGATGCAGCAATTGAAACATATAATCTTCTTCTGAGAGGTGGTT  
TACTCATGCTTCGCCCCACTCTCTTCAATGCTGGTACCAACCGCCCACTTTCTAGCTGTTTTCTTCTGAGTAT  
GAAAGATGACAGCATTGAAGGCATTTATGACACTCTAAAGCAATGTGCATTGATTTCTAAGTCTGCTGGAGGAAT  
TGGTGTGCTGTGAGTTGTATTGGGGCTACTGGCAGCTACATTGCTGGGACTAATGGCAATTCCAATGGCCTTGT  
ACCGATGCTGAGAGTATATAACAACACAGCTAGATATGTGGATCAAGGTGGGAACAAGCGTCCTGGGGCATTTCG  
TATTTACCTGGAGCCTTGGCATTAGACATCTTTGAATTCTTGATTTAAAGAAGAACACAGGAAAGGAAGAGCA  
GCGTGCCAGAGATCTTTTCTTTGCTCTTTGGATTCCGGATCTCTTCATGAAACGAGTGGAGACTAATCAGGACTG  
GTCTTTGATGTGTCCAAATGAGTGTCTGGTCTGGATGAGGTTTGGGGAGAGGAATTTGAGAACTATATGCAAG  
TTATGAGAAACAAGGTGCTGTCCGCAAAGTTGTAAAAGCTCAGCAGCTTTGGTATGCCATCATTGAGTCTCAGAC  
GGAAACAGGCACCCCGTATATGCTCTACAAAGATTCTGTAAATCGAAAGAGCAACCAGCAGAACCTGGGAACCAT  
CAAATGCAGCAACCTGTGCACAGAAATAGTGGAGTACACCAGCAAAGATGAGGTTGCTGTTTGTAATTTGGCTTC  
CCTGGCCCTGAATATGTATGTACATCAGAACACACATACGACTTTAAGAAGTTGGCTGAAGTCACTAAAGTCGT  
TGTCCGAAACTTGAATAAAATTATTGATATAAACTACTATCCTGTACCAGAGGCATGCCTATCAAATAAACGCCA  
TCGCCCCATTGGAATTGGGGTACAAGGTCTGGCAGATGCTTTTATCCTGATGAGATACCTTTTGAGAGTGCAGA  
AGCCCAGTTACTGAATAAGCAGATCTTTGAAACTATTTATTATGGTGCTCTGGAAGCCAGCTGTGACCTTGCCAA  
GGAGCAGGGCCCATACGAAACCTATGAGGGCTCTCCAGTTAGCAAAGGAATTCTTCAGTATGATATGTGGAATGT  
TACTCCTACAGACCTATGGGACTGGAAGGTTCTCAAGGAGAAGATTGCAAAGTATGGTATAAGAAACAGTTTACT  
TATTGCCCGCATGCCTACAGCTTCCACTGCTCAGATCCTGGGGAATAATGAGTCCATTGAACCTTACACCAGCAA  
CATCTATACTCGCAGAGTCTTGTGAGGAGAATTCAGATTGTAAATCCTCACTTATTGAAAGATCTTACCGAGCG  
GGGCCTATGGCATGAAGAGATGAAAAACCAGATTATTGCATGCAATGGCTCTATTAGAGCATAACCAGAAATTCC  
TGATGACCTGAAGCAACTTTATAAACTGTGTGGGAAATCTCTCAGAAAACCTGTTCTCAAGATGGCAGCTGAGAG  
AGGTGCTTTTCATTGATCAAAGCCAATCTTTGAACATCCACATTGCTGAGCCTAACTATGGCAAACCTCACTAGTAT  
GCACCTTCTACGGCTGGAAGCAGGGTTTGAAGACTGGGATGTATTATTTAAGGACAAGACCAGCAGCTAATCCAAT  
CCAGTTCACTCTAAATAAGGAGAAGCTAAAAAGATAAAGAAAAGGTATCAAAGAGGAAGAAGAGAAGGAGAGGAA  
CACAGCAGCCATGGTGTGCTCTTTGGAGAATAGAGATGAATGTCTGATGTGTGGATCCTTGAGGAAAGACTTGGA  
GAGACCAGCATGTCTTCAGTAGCCAAACTACTTCTTGAGCATAGATAGGTATAGTGGGTTTGCTTGAGGTGGTAA  
GGCTTTGCTGGACCCTGTTGCAGGCAAAAAGGAGTAATTGATTTAAAGTACTGTTAATGATGTTAATGATTTTTTT  
TTAAACTCATATATTGGGATTTTACCAAAAATAATGCTTTTGAAAAAAGAAAAAAGCGGATATATTGAGAA  
TCAAAGTAGAAGTTTTAGGAATGCAAAAATAAGTCATCTTGATACAGGGAGTGGTTAAGTAAGGTTTTCATCACCC  
ATTTAGCATGCTTTTTCTGAAGACTTCAGTTTTGTTAAGGAGATTTAGTTTTACTGCTTTGACTGGTGGGTCTCTA  
GAAGCAAAACTGAGTGATAACTCAGAGTACTGATAGGACCTTTATCTGGATATGGTCTATAGGTTATTCT  
GAAATAAAGATAAACATTTCTAAGTGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAGAAAAAAG

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**FIGURE 125**

MHVIKRDGRQERVMDKITSRIQKLCYGLNMDFVDPAQITMKVIQGLYSGVTTVELDTLAAETAATLTTHKHPDYA  
ILAARIAVSNLHKETKKVFSVDMEDLYNYINPHNGKHSPMVAKSTLDIVLANKDRLNSAIYDRDFS YNYFGFKT  
LERSYLLKINGKVAERPQHMLMRVSVGIHKEDIDAAIETYNLLSERWFT HASPTLFNAGTNRPQLSSCFLLSMKD  
DSIEGIYDTLKQCALISKSAGGIGVAVSCIRATGSYIAGTNGNSNGLVPMLRVYNNTARYVDQGGNKRPGAFIY  
LEPWHL DIFEFLDLKKNTGKEEQ RARDLFFALWIPDLFMKR VETNQDWSLMCPNECPGLDEVWGEEFEKLYASYE  
KQGRVRKVVKAAQQLWYAIIESQTETGTPYMLYKDSCNRKSNQONLGTIKCSNLCTEIVEYTSKDEVAVCNLASLA  
LNMYVTSEHTYDFKKLAEVTKVVVRNLNKIIDINYPVPEACLSNKRHRPIGIGVQGLADAFILMRYPFESAEAQ  
LLNKQIFETIYYGALEASCDLAKEQGPYETIEGSPVSKGILQYDMWNVTPDLDWDWKVLKEKIAKYGIRNSLLIA  
PMPTASTAQILGNNESEPYTSNIYTRRVLSGEFQIVNPHLLKDLTERGLWHEEMKNQIIACNGSIQSIPEIPDD  
LKQLYKTVWEISQKTVLKMAAERGAFIDQSQSLNIHIAEPNYGKLTSMHFYGWKQGLKTGMYYLRT RPAANPIQF  
TLNKEKLDKEKVSKEEEEKERNTAAMVCSLENRDECLMCGS

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**FIGURE 126**

TCTGGGCGCGCGACGTCAGTTTGAGTTCTGTGTTCTCCCCGCCCCGTGTCCCGCCCGACCCGCGCCCCGCG**ATGC**  
TGGCGCTGCGCTGCGGCTCCCGCTGGCTCGGCCTGCTCTCCGTCCCGCGCTCCGTGCCGCTGCGCCTCCCGCGG  
CCCGCGCTGCGCAAGGGCTCCGGCGACCCGTCTCTTCTCCTCCTCCGGGAACCCGCTCGTGTACCTGGACG  
TGGACGCCAACGGGAAGCCGCTCGGCCGCGTGGTGCTGGAGCTGAAGGCAGATGTCGTCCCAAAGACAGCTGAGA  
ACTTCAGAGCCCTGTGCACTGGTGAGAAGGGCTTCGGCTACAAAGGCTCCACCTTCCACAGGGTGATCCCTTCCT  
TCATGTGCCAGGCGGGCGACTTCACCAACCACAATGGCACAGGCGGGAAGTCCATCTACGGAAGCCGCTTTCCTG  
ACGAGAACTTTACACTGAAGCACGTGGGGCCAGGTGTCTGTCCATGGCTAATGCTGGTTCCTAACACCAACGGCT  
CCCAGTTCTTCATCTGCACCATAAAGACAGACTGGTTGGATGGCAAGCATGTTGTGTTCCGGTCACGTCAAAGAGG  
GCATGGACGTCGTGAAGAAAATAGAATCTTTCGGCTCTAAGAGTGGGAGGACATCCAAGAAGATTGTCATCACAG  
ACTGTGGCCAGTTGAGCT**TAA**TCTGTGGCCAGGGTGCTGGCATGGTGGCAGCTGCAAATGTCCATGCACCCAGGTG  
GCCGCGTTGGGCTGTGAGCCAAGGTGCCTGAAACGATACGTGTGCCCACTCCACTGTCACAGTGTGCCTGAGGAA  
GGCTGCTAGGGATGTTAGACCTCGGCCAGGACCCACCACATTGCTTCCTAATACCCACCCTTCCTCACGACCTCA  
TTTCTGGGCATCTTTGTGGACATGATGTACCCACCCCTTGTCAAGCATTGCCTGTGATTGCCAGCCCAGATTC  
ATCTGTGCCTTGGACATGGTGATGGTGATGGGTTGCCATCCAAGTGAAAGTCTTTTCCTTGACCAAGGGGGACAG  
TCAGTTTTGCAAAGGACTCTAATACCTGTTTAATATTGTCTTCCTAATTGGGATAATTTAATTAACAAGATTGA  
CTAGAAGTGAACTGCAACACTAACTTCCCCGTGCTGTGGTGTGACCTGAGTTGGTGACACAGGCCACAGACCCC  
AGAGCTTGGCTTTTGAAACACAACCTCAGGGCTTTTGTGAAGGTTCCCCCGCTGAGATCTTTCCTCCTGGTTACTG  
TGAAGCCTGTTGGTTTGCTGCTGTCGTTTTTGGAGAGGGCCCATGGGGGTAGGAGCAGTTGAACCTGGGAACAAA  
CCTCACTTGAGCTGTGCCTAGACAATGTGAATTCCTGTGTTGCTAACAGAAGTGGCCTGTAAGCTCCTGTGCTCC  
GGAGGGAAGCATTTCCTGGTAGGCTTTGATTTTTCTGTGTGTTAAAGAAATTCAATCTACTCATGATGTGTTATG  
CATAAAACATTTCTGGAACATGGATTTGTGTTACCTTAAATGTGAAAATAAATCCTATTTTCTATGGAAAAAA  
AAAAAAAAAAAAAAAA

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**FIGURE 127**

MLALRCGSRWLGLLSVPRSVPLRLPAARACSKGSGDPSSSSSSGNPLVYLDVDANGKPLGRVVLELKADVVPKTA  
ENFRALCTGEKGFYKGSTFHRVIPSFMCQAGFTNHNGTGGKSIYGSRFPDENFTLKHVGPVLSMANAGPNTN  
GSQFFICTIKTDWLDGKHVVFGHVKEGMDVVKKIESFGSKSGRTSKKIVITDCGQLS



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**FIGURE 128**

TCTGGGCGCGCGACGTCAGTTTGAGTTCTGTGTTCTCCCCGCCCCGTGTCCCGCCCCGACCCGCGCCCCGCG**ATGC**  
TGGCGCTGCGCTGCGGCTCCCGCTGGCTCGGCCTGCTCTCCGTCCCGCGCTCCGTGCCGCTGCGCCTCCCGCGG  
CCCGCGCCTGCAGCAAGGGCTCCGGCGACCCGTCTCTTCCCTCCTCCTCCGGGAACCCGCTCGTGTACCTGGACG  
TGGACGCCAACGGGAAGCCGCTCGGCCGCGTGGTGCTGGAGCTGAAGGCAGATGTCGTCCCAAAGACAGCTGAGA  
ACTTCAGAGCCCTGTGCACTGGTGAGAAGGGCTTCGGCTACAAAGGCTCCACCTTCCACAGGGTGATCCCTTCCT  
TCATGTGCCAGGCGGGCGACTTCACCAACCACAATGGCACAGGCGGGAAGTCCATCTACGGAAGCCGCTTTCCTG  
ACGAGAACTTTACACTGAAGCACGTGGGGCCAGGTGTCTGTCCATGGCTAATGCTGGTTCCTAACACCAACGGCT  
CCCAGTTCTTCATCTGCACCATAAAGACAGACTGGTTGGATGGCAAGCATGTTGTGTTCCGGTCACGTCAAAGAGG  
GCATGGACGTCGTGAAGAAAATAGAATCTTTCGGCTCTAAGAGTGGGAGGACATCCAAGAAGATTGTCATCACAG  
ACTGTGGCCAGTTGAGCT**TAA**CTGTGGCCAGGGTGCTGGCATGGTGGCAGCTGCAAATGTCCATGCACCCAGGTG  
GCCGCGTTGGGCTGTGAGCCAAGGTGCCTGAAACGATACGTGTGCCCCACTCCACTGTCACAGTGTGCCTGAGGAA  
GGCTGTAGGGATGTTAGACCTCGGCCAGGACCCACCACATTGCTTCCTAATACCCACCCTTCCTCACGACCTCA  
TTTCTGGGCATCTTTGTGGACATGATGTCACCCACCCCTTGTCAAGCATTGCCTGTGATTGCCAGCCAGATTC  
ATCTGTGCCTTGGACATGGTGATGGTGATGGGTTGCCATCCAAGTGAAAGTCTTTTCCTTGACCAAGGGGGACAG  
TCAGTTTTGCAAAAGGACTCTAATACCTGTTTAATATTGTCTTCCTAATTGGGATAATTTAATTAACAAGATTGA  
CTAGAAGTGAACTGCAACACTAACTTCCCCGTGCTGTGGTGACCTGAGTTGGTGACACAGGCCACAGACCCC  
AGAGCTTGGCTTTTGAAACACAACCTCAGGGCTTTTGTGAAGGTTCCCCCGCTGAGATCTTTCCTCCTGGTTACTG  
TGAAGCCTGTTGGTTTGCTGCTGTCGTTTTTGAGGAGGGCCCATGGGGGTAGGAGCAGTTGAACCTGGGAACAAA  
CCTCACTTGAGCTGTGCCTAGACAATGTGAATTCCTGTGTTGCTAACAGAAGTGGCCTGTAAGCTCCTGTGCTCC  
GGAGGGAAGCATTTCTGGTAGGCTTTGATTTTTCTGTGTGTTAAAGAAATTCAATCTACTCATGATGTGTTATG  
CATAAAACATTTCTGGAACATGGATTTGTGTTACCTTAAATGTGAAAATAAATCCTATTTTCTATGGAAAAAA  
AAAAAAAAAAAAAAAA

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**FIGURE 129**

MLALRCGSRWLGLLSVPRSVPLRLPAARACSKGSGDPSSSSSSGNPLVYLDVDANGKPLGRVVLELKADVVPKTA  
ENFRALCTGEKGFYKGSTFHRVIPSFMCQAGFTNHNGTGGKSIYGSRFPDENFTLKHVGPVLSMANAGPNTN  
GSQFFICTIKTDWLDGKHVVFGHVKEGMDVVKKIESFGSKSGRTSKKIVITDCGQLS

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**FIGURE 130**

CGGCGGAGCTGGTCCCGTTGTGCTGCGGCGCCGCGCGGCCTGCAGTCCCGGGCCCCGCGCCCCGCGCCGCCCCGCC  
GCCCCGCC**ATG**GAGCCCCGCCCCGACGGCCCCGCGGCCTCCGGCCCCGCGGCCATCCGCGAGGGCTGGTTCCGCGA  
GACCTGCAGCCTGTGGCCCCGCCAGGCCCTGTCGCTGCAGGTGGAGCAGCTGCTCCACCACCGGCGCTCGCGCTA  
CCAGGACATCCTCGTCTTCCGCAGTAAGACCTATGGCAACGTGCTGGTGTGGACGGTGTATCCAGTGCACGGA  
GAGAGACGAGTTCTCCTACCAGGAGATGATCGCCAACCTGCCTCTCTGCAGCCACCCCAACCCGCGAAAGGTGCT  
GATCATCGGGGGCGGAGATGGAGGTGTCCTGCGGGAGGTGGTGAAGCACCCCTCCGTGGAGTCCGTGGTCCAGTG  
TGAGATCGACGAGGATGTCATCCAAGTCTCCAAGAAGTTCTGCCAGGCATGGCCATTGGCTACTCTAGCTCGAA  
GGTGACCCTACATGTGGGTGACGGTTTTGAGTTTCATGAAACAGAATCAGGATGCCTTCGACGTGATCATCACTGA  
CTCCTCAGACCCCATGGGCCCCGCCGAAAGTCTCTTCAAGGAGTCCTATTACCAGCTCATGAAGACAGCCCTCAA  
GGAAGATGGTGTCTCTGCTGCCAGGGCGAGTGCGAGTGGCTGCACCTGGACCTCATCAAGGAGATGCGGCAGTT  
CTGCCAGTCCCTGTTCCCCGTGGTGGCCTATGCCTACTGCACCATCCCCACCTACCCAGCGGCCAGATCGGCTT  
CATGCTGTGCAGCAAGAACCCGAGCACGAACCTCCAGGAGCCGGTGCAGCCGCTGACACAGCAGCAGGTGGCGCA  
GATGCAGCTGAAGTACTACAACCTCCGACGTGCACCGCGCCGCCCTTTGTGCTGCCCCGAGTTTGCCCGCAAGGCCCT  
GAATGATGTGAGCT**TGAG**CCCCAGGCGCCACCCTGATGCCACCCAGGACCTCGGACCTTGAGCCTGCGGGGTGCC  
TCGGCCCCCTCCAGCCCCGGGCGGACCTCCTGCTGGCTCTCGCCCCACCAACCAAGTGTACAAGCCCCAGAATGC  
TGCCCGGCCTGCCCTGCTGGGCGGACTGTCTGTGTGTCTGTCTCTCTGGCGTTCCACCTCCAAGCCTATACCAGC  
TGTGTACAGCGCCATCTCTCTGCCTTCTGTTGCCCCG

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**FIGURE 131**

MEPGPDGPAASGPAAIREGWFRETCSLWPGQALSLOVEQLLHHRRSRYQDILVFRSKTYGNVLVLDGVIQCTERD  
EFSYQEMIANLPLCSHPNPRKVLIIIGGDGGVLREVVKHPSVESVVQCEIDEDVIQVSKKFLPGMAIGYSSSKVT  
LHVGDGFEFMKQNQDAFDVITDSSDPMGPAESLFKESYYQLMKTALKEDGVLCCQGECEWLHLDLIKEMRQFCQ  
SLFPVVAYAYCTIPTYPGQIGFMLCSKNPSTNFQEPVQPLTQQQVAQMLKYNSDVHRAAFVLPEFARKALND  
VS

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**FIGURE 132**

GCGCTCCGGGCCTGGAATCCCTACGCGTCCCTTTGGGTTTAGCACGATGAGCTCAATCGGCACTGGGTATGACCT  
GTCAGCCTCTACATTCTCTCCTGACGGAAGAGTTTTTCAAGTTGAATATGCTATGAAGGCTGTGGAAAATAGTAG  
TACAGCTATTGGAATCAGATGCAAAGATGGTGTGTCTTTGGGGTAGAAAAATTAGTCCTTTCTAAACTTTATGA  
AGAAGGTTCCAACAAAAGACTTTTTAATGTTGATCGGCATGTTGGAATGGCAGTAGCAGGTTTGTGGCAGATGC  
TCGTTCTTTAGCAGACATAGCAAGAGAAGAAGCTTCCAACCTCAGATCTAACTTTGGCTACAACATTCCACTAAA  
ACATCTTGCAGACAGAGTGGCCATGTATGTGCATGCATATACACTCTACAGTGCTGTTAGACCTTTTGGCTGCAG  
TTTCATGTTAGGGTCTTACAGTGTGAATGACGGTGCGCAACTCTACATGATTGACCCATCAGGTGTTTCATACGG  
TTATTGGGGCTGTGCCATCGGCAAAGCCAGGCAAGCTGCAAAGACGGAAATAGAGAAGCTTCAGATGAAAGAAAT  
GACCTGCCGTGATATCGTTAAAGAAGTTGCAAAAATAATTTACATAGTACATGACGAAGTTAAGGATAAAGCTTT  
TGAAGTAGAACTCAGCTGGGTTGGTGAATTAATAATGGAAGACATGAAATTGTTCCAAAAGATATAAGAGAAGA  
AGCAGAGAAATATGCTAAGGAATCTCTGAAGGAAGAAGATGAATCAGATGATGATAATATGTAACATTTACTCCA  
GCATCTATTGTATTTTAAATTTCTACTCCAGTCCAATGTAACATTTTAGCCCTGGATTATACATACTGTCCAATT  
TTCATTAAATTTTTGTCTTATAACTATAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 133**

MSSIGTGYDLSASTFSPDGRVFQVEYAMKAVENTSSTAIGIRCKDGVVFGVEKLVLSKLYEEGSNKRLFNVDHRVG  
MAVAGLLADARSLADIAREEASNFRSNGYNIPLKHLADRVAMYVHAYTLYSAVRPFGCSFMLGSYSVNDGAQLY  
MIDPSGVSYGYWGCAIGKARQAAKTEIEKLQMKEMTCRDIVKEVAKIIYIVHDEVKDKAFELELSWVGELTNGRH  
EIVPKDIREEAKEYAKESLKEEDESDDDNM

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**FIGURE 134**

CGGCACGAGGCGACTTTGGTGGAGGTAGTTCTTTGGCAGCGGGC**ATGG**CGGGTACCGTGGTGTGGACGATGTGG  
AGCTGCGGGAGGCTCAGAGAGATTACCTGGACTTCCTGGACGACGAGGAAGACCAGGGAATTTATCAGAGCAAAG  
TTCGGGAGCTGATCAGTGACAACCAATACCGGCTGATTGTCAATGTGAATGACCTGCGCAGGAAAAACGAGAAGA  
GGGCTAACCGGCTTCTGAACAATGCCTTTGAGGAGCTGGTTGCCTTCAGCGGGCCTTAAAGGATTTTGTGGCCT  
CCATTGATGCTACCTATGCCAAGCAGTATGAGGAGTTCTACGTAGGACTGGAAGGCAGCTTTGGCTCCAAGCACG  
TCTCCCCGCGGACTCTTACCTCCTGCTTCCTCAGCTGTGTGGTCTGTGTGGAGGGCATTGTCACTAAATGTTCTC  
TAGTTTCGTCCCAAAGTCGTCCGCAGTGTCCACTACTGTCTGTCTACTAAGAAGACCATAGAGCGACGTTATTCTG  
ATCTCACCACCCTGGTGGCCTTTCCCTCCAGCTCTGTCTATCTACCAAGGATGAGGAGAACAAATCCCCTTGAGA  
CAGAATATGGCCTTTCTGTCTACAAGGATCACCAGACCATCACCATCCAGGAGATGCCGGAGAAGGCCCCAGCCG  
GCCAGCTCCCCCGCTCTGTGGACGTCATTCTGGATGATGACTTGGTGGATAAAGCGAAGCCTGGTGACCGGGTTC  
AGGTGGTGGGAACCTACCGTTGCCTTCCTGGAAAGAAGGGAGGCTACACCTCTGGGACCTTCAGGACTGTCTCTGA  
TTGCCTGTAATGTTAAGCAGATGAGCAAGGATGCTCAGCCCTCTTTCTCTGCTGAGGATATAGCCAAGATCAAGA  
AGTTCAGTAAACCCGATCCAAGGATATCTTTGACCAGCTGGCCAAGTCATTGGCCCCAAGTATCCATGGGCATG  
ACTATGTCAAGAAAGCAATCCTCTGCTTGGCTCTTGGGAGGGGTGGAACGAGACCTAGAAAATGGCAGCCACATCC  
GTGGGGACATCAATATTCTTCTAATAGGAGACCCATCCGTTGCCAAGTCTCAGCTTCTGCGGTATGTGCTTTGCA  
CTGCACCCCGAGCTATCCCCACCACTGGCCGGGGCTCCTCTGGAGTGGGTCTGACGGCTGCTGTCAACACAGACC  
AGGAAACAGGAGAGCGCCGCTGGAAGCAGGGGCCATGGTCTGGCTGACCGAGGCGTGGTTTGATTGATGAAT  
TTGACAAAATGTCTGACATGGATCGCACAGCCATCCATGAAGTGTGAGCAGGGTCGAGTGACCATTGCCAAGG  
CTGGCATCCATGCTCGGCTGAATGCCCGCTGCAGTGTTTTGGCAGCTGCCAACCCTGTCTACGGCAGGTATGACC  
AGTATAAGACTCCAATGGAGAACATTGGGCTACAGGACTCACTGTGTACGATTTGACTTGCTCTTCATCATGC  
TGGATCAGATGGATCCTGAGCAGGATCGGGAGATCTCAGACCATGTCTCTCGGATGCACCGTTACAGAGCACCTG  
GGGAGCAGGATGGCGATGCTATGCCCTTGGGTAGTGTGTGGATATCCTGGCCACAGATGATCCCAACTTTAGCC  
AGGAAGATCAGCAGGACACCCAGATTTATGAGAAGCATGACAACCTTCTACATGGGACCAAGAAGAAAAAGGAGA  
AGATGGTGAGTGCAGCATTTCATGAAGAAGTACATCCATGTGGCCAAAAATCATCAAGCCTGTCTGACACAGGAGT  
CGGCCACCTACATTGCAGAAGAGTATTACGCCTGCGCAGCCAGGATAGCATGAGCTCAGACACCGCCAGGACAT  
CTCCAGTTACAGCCCGAACACTGGAACTCTGATTGACTGGCCACAGCCCATGCGAAGGCCCGCATGAGCAAGA  
CTGTGGACCTGCAGGATGCAGAGGAAGCTGTGGAGTTGGTCCAGTATGCTTACTTTAAGAAGTTCTGGAGAAGG  
AGAAGAAACGTAAGAAGCGAAGTGAGGATGAATCAGAGACAGAAGATGAAGAGGAGAAAAGCCAAGAGGACCAGG  
AGCAGAAGAGGAAGAGAAGGAAGACTCGCCAGCCAGATGCCAAAGATGGGGATTCATACGACCCCTATGACTTCA  
GTGACACAGAGGAGGAAATGCCTCAAGTACACACTCCAAAGACGGCAGACTCACAGGAGACCAAGGAATCCCAGA  
AAGTGGAGTTGAGTGAATCCAGGTTGAAGGCATTCAAGGTGGCCCTCTTGATGTGTTCCGGGAAGCTCATGCGC  
AGTCAATCGGCATGAATCGCCTCACAGAATCCATCAACCGGGACAGCGAAGAGCCCTTCTCTTCAGTTGAGATCC  
AGGCTGCTCTGAGCAAGATGCAGGATGACAATCAGGTGATGGTGTCTGAGGGCATCATCTTCCTCATCT**AGAG**GAG  
GCCTCGTCTCTGAACTTGGGTTGTGCCGAGAGAGTTTGTCTGTGTTCCACCCCTCTCCCTGACCCAAGTCTTT  
GCCTCTACTCCCTTAACAGTGTGAATTCAACTGAAGGCGAGGAATGTTGGTGATGAAGCTGAGTTCAGGACTCG  
GTGGACCCTTTGGGAATGGGTCATGAAAGCTGCCATGGGGTGAGGAAAGAGGAGACAGTGGGAGAGGACAATGAC  
TATTGCATCTTCATTGCAAAAGCACTGGCTCATCCGCCCTACTTCCCATCCCACACAAACCCAATTGTAAATAAC  
ATATGACTTCTGAGTACTTTTGGGGGCACAACCTGTTTTCTGTTTGCTGTTTTTTTGTGTTTTTTTTTCTCCAG  
AGCACTTTGGTCTAGACTAGGCTTTGGGTGGTTCCAATTGGTGGAGAGAAGCTCTGAGGCACGTGATGCAGGTCA  
AGAAAGCTTTCTTTGCAGTAGCACCAGTTAAGGTGAATATGTATTGTATCACAAAAACAAACCCAATATCCAGATG  
AATATCCGAGATGTTGAATAAACTTAGCCATTTTCGTACAAAAAAGGGGGGGCCCGGTAAAC

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**FIGURE 135**

MAGTVVLDDELREAQRDYLDLDEEDQGIYQSKVRELISDNQYRLIVNVNDLRRKNEKRANRLNNAFEELVA  
FQALKDFVASIDATYAKQYEEFYVGLGSGSKHVSPTLTSCFLSCVVCVEGIVTKCSLVRPKVVRVSVHYCPA  
TKKTIERRYSDLTTLVAFPSSSVYPTKDEENNPLETEYGLSVYKDHQTITIQEMPEKAPAGQLPRSVDVILDDDL  
VDKAKPGDRVQVVGTYRCLPGKKGGYTSCTFRTVLIACNVKQMSKDAQPSFSAEDIAKIKKFSKTRSKDIFDQLA  
KSLAPSIHGHYVKKAILCLLLGGVERDLENGSHIRGDINILLIGDPSVAKSQLLRYVLCTAPRAIPTTGRGSSG  
VGLTAAVTTDQETGERRLEAGAMVLADRGVVCIDEFDKMSDMDRTAIHEVMEQGRVTIAKAGIHARLNARCSVLA  
AANPVYGRYDQYKTPMENIGLQDSLLSRFDLLFIMLDQMDPEQDREISDHVLRMHRYRAPGEQDGDAMPLGSAVD  
ILATDDPNFSQEDQQDTQIYEKHDNLLHGTKKKKEKMSAAFMKKYIHVAKI IKPVL TQESATYIAEEYSRLRSQ  
DSMSSDTARTSPVTARTLETILRLATAHAKARMSKTVDLQDAEEAVELVQYAYFKKVLEKEKKRKRSEDESETE  
DEEEKSQEDQEQKRKRKRTRQPDAGDGSYDPYDFSDTEEMPQVHTPKTADSQETKESQKVELSESRLKAFKVA  
LLDVFREAHQAQSIGMNRLTESINRDSEEPFSSVEIQAAALSKMQDDNQVMVSEGIIFLI



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**FIGURE 136**

TGCTGCGAACCACGTGGGTCCCCGGGCGCGTTTCGGGTGCTGGCGGCTGCAGCCGGAGTTCAAACCTAAGCAGCTG  
GAAGGAACC**ATG**GCCAACTGTGAGCGTACCTTCATTGCGATCAAACCAGATGGGGTCCAGCGGGGTCTTGTGGGA  
GAGATTATCAAGCGTTTTGAGCAGAAAGGATTCCGCCTTGTTGGTCTGAAATTCATGCAAGCTTCCGAAGATCTT  
CTCAAGGAACACTACGTTGACCTGAAGGACCGTCCATTCTTTGCCGGCCTGGTGAAATACATGCACTCAGGGCCG  
GTAGTTGCCATGGTCTGGGAGGGGCTGAATGTGGTGAAGACGGGCCGAGTCATGCTCGGGGAGACCAACCCTGCA  
GACTCCAAGCCTGGGACCATCCGTGGAGACTTCTGCATACAAGTTGGCAGGAACATTATACATGGCAGTGATTCT  
GTGGAGAGTGCAGAGAAGGAGATCGGCTTGTGGTTTCACCCTGAGGAACTGGTAGATTACACGAGCTGTGCTCAG  
AACTGGATCTATGAAT**GAC**AGGAGGGCAGACCACATTGCTTTTACATCCATTTCCCCTCCTTCCCATGGGCAGA  
GGACCAGGCTGTAGGAAATCTAGTTATTTACAGGAAC TTCATCATAATTTGGAGGGAAGCTCTTGGAGCTGTGAG  
TTCTCCCTGTACAGTGTTACCATCCCCGACCATCTGATTAAATGCTTCCTCCCAGC

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**FIGURE 137**

MANCERTFIAIKPDGVQRGLVGEIIKRFEQKGFRLVGLKFMQASEDLLKEHYVDLKDRPFFAGLVKYMHS GPVVA  
MVWEGLVVVK TGRVMLGETNPADSKPGTIRGDFCIQVGRNIIHGSDSVESAEKEIGLWFHPEELVDYTSCAQNWI  
YE

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**FIGURE 138A**

GGCTCATAGAGCTGAACAGTTGCAGGATGCGGAGGAGGAAAAAGATGATTCAAATGAAGAAGAAAACAAAGACAG  
CCTTGATAGATGATGAAGAAGAGAAAGAAGATCTTGGCGATGAGGATGAAGCAGAGGAAGAAGAGGAGGAGGACAA  
CTTGGCTGCTGGTGTGGATGAGGAGAGAAGTGAGGCCAATGATCAGGGGCCCCCAGGAGAGGACGGTGTGACCCG  
GGAGGAAGTAGAGCCTGAGGAGGCTGAAGAAGGCATCTCTGAGCAACCCTGCCAGCTGACACAGAGGTGGTGGGA  
AGACTCCTTGAGGCAGCGTAAAGTCAGCATGCTGACAAGGGACTGTAGATTTAATGATGCGTTTTCAAGAATAC  
ACACCAAAACAATATGTCAGCTTCCCTTTGGCCTGCAGTTTGTACCAAATCCTTAATTTTTCTGAATGAGCAAG  
CTTCTCTTAAAGATGCTCTCTAGTCATTTGGTCTCATGGCAGTAAGCCTCATGTATACTAAGGAGAGTCTTCCA  
GGTGTGACAATCAGGATATAGAAAAACAAACGTAGTGTGGGATCTGTTTGGAGACTGGGATGGGAACAAGTTCA  
TTTACTTAGGGGTGAGAGAGTCTCGACCAGAGGAGGCCATTCCCAGTCCTAATCAGCACCTTCCAGAGACAAGGC  
TGCAGGCCCTGTGAAATGAAAGCCAAGCAGGAGCCTTGGCTCCTGAGCATCCCCAAAGTGTAACGTAGAAGCCTT  
GCATCCTTTTTCTTGTGTAAAGTATTTATTTTTGTCAAATTGCAGGAAACATCAGGCACCACAGTGCATGAAAAAT  
CTTTCACAGCTAGAAATTGAAAGGGCCTTGGGTATAGAGAGCAGCTCAGAAGTCATCCCAGCCCTCTGAATCTCC  
TGTGCTATGTTTTATTTCTTACCTTTAATTTTTCCAGCATTTCCACCATGGGCATTTCAGGCTCTCCACACTCTTC  
ACTATTATCTCTTGGTCAGAGGACTCCAATAACAGCCAGGTTTACATGAAGTGTGTTTGTTCATTCTGACCTAAG  
GGGTTTAGATAATCAGTAACCATAACCCCTGAAGCTGTGACTGCCAAACATCTCAAATGAAATGTTGTGGCCATC  
AGAGACTCAAAGGAAGTAAGGATTTTACAAGACAGATTAAAAAAAATGGTTTTGTCCAAAATATAGTTGTTGT  
TGATTTTTTTTTAAGTTTTCTAAGCAATATTTTTCAAGCCAGAAGTCTCTAAGTCTTGCCAGTACAAGGTAGTC  
TTGTGAAGAAAAGTTGAATACTGTTTTGTTTTCATCTCAAGGGGTTCCTGGGTCTTGAAGTACTTTAATAATAA  
CTAAAAAACCACTTCTGATTTTCTTTCAGTGATGTGCTTTTGGTGAAAGAATTAATGAAGTCCAGTACCTGAAAG  
TGAAAGATTTGATTTTGTTCATCTTCTGTAATCTTCCAAAGAATTATATCTTTGTAAATCTCTCAATACTCAA  
CCTACTGTAAGTACCCAGGGAGGCTAATTTCTTAAAAAAAATCTATCCATCTACTTCTCTCTTACCTGAT  
TTATGTGTTAGAATAAATTCATGAAATTCGATTCCAAGCATACGAAAGATGCCTAAAGTTGATTCTATGCTCCTT  
AGATCCAGACAGAATAATGAGTACAGGTTTATGAAATCTAAAAGTTTCTGTGCTCTTTAAAAAGGAACGTGCAG  
TATATTTCTATCTGGCTGTTTAGATAACCCCTTCTTGTATTAAATTGTGAGCACGGAGCTCACTGGTGGGGGAGG  
TTCTGAAACTCTCTGCCCTCCTGTGGTTGAATGAAGATGTTGCAAGACTTGCACAAAGGAGGTTATTCTTCTGAC  
AGCATCAACTTTTAGAGATGGTTCTTTTTCTATCTTTCCAATTTCAGTTACTTGACAGTCTCCTTCCCCAGTATGCT  
GAAGTTTGTTAAGAGTCACCAGTAATTGTGCTTTTCAGACAGTAGTGCAGCTTCAAATCGAGGCCATCACTGGG  
CTGATGGGCTGGGAGAACCCTTGCCATGTGCTGCTGTTTCTGCCCCCTTAGTCACTGCCCATTTCTGCCCCC  
TTGGTCTGCTGACACACCTTCACCCAAAGTGCCATGGTCTGATGGTGGCAGTTCCATCTCCCTGACATCAGGAAG  
CTTTCTCGATCAGAGCAGAGCGGGGCTGCCTGCCCTCGTGTCACTGGATTTCTTTCTCTTATAATCAGCTGAA  
ACAGAGTTCTCAAAGAACAGTAACTCAGGTTTCAAGGATATTATGGAATAAGAATGGTTTCATAGTTTGGCTTTT  
CTATATAATTCTCCCTCTCAAACCTGAAATATTCAATTTTTTAGTGGAGTATTGACTAGAGAGAAGGTAAGGCA  
GAAATACAGTCTACACTGGCTTTTAAAAATGTAAAGCCAATTTCCAACCGGACCCCAAATAGTACAGGTTGAACA  
TTCCGTTCCAACAATCCAAACCCCAAATGCTCCAAAATCTTAACTTTGAGTTCCAGCATTCGGTCAGAAGTGG  
AAAAATTTACACCTGACCTCATTGACAGGTGGCAGTTACAGTGCATCAAACCTTTGTTCCATGCCCAAGATTA  
TTAAAAATATTGGATAAAATTACCTTCAAGCTATGTTGTATAAGGTGTATATAAAACAAATGAATTTTGTGTTTA  
GACTTGGGTCTACTCCCAAGATACCTCATTATATATATACAAAAATCCCCAAATCCAAAAACATTTGAAACACTT  
CTGGTCCCACACATTTTGGATAAGGGATATTTGACCTATATCTAATTATATAATAAGAAAAATGTATTTTCTTTT  
TTTTTTTTTTTTTGTAGATGGAGTTTCACTCTTGTGTGCGCCAGGCTGCAATGGCACAATCTTGGCTTACTACAA  
CCTCCGCCCTCCCTAGTTCAAGGGATTCTCCTGCCTCAGCCTCCCAGGTAGCTGGGATTACAGGCATGTGCCACCA  
TGCCTGGCTAATTTTGTATTTTGTAGTAGAGACGGGGTTTTCGCCATGTTGGTCAGACTGGTCTTGAAGTCTTGACC  
TCAGGTGATCCGCCCGCCTCAGCCTCCAACGTGCTGGGATTACAGGTGTGAGCCACCGTACCTGGCAGAAAATG  
TACTTTCTTTCTCAGAAATACTTTTTAAAAAAATGAAGGGTGAGGAGAAAAACATCTTGGAGAAGAGGACCCAT  
TAAACTTTAAATATCTGTGGGAACCATTTTTCTGATTTTCCCTTTTTTAACATCATGGCAAAGATGGGTTTTT  
TTCCAACAAAATTTAATTTAATATCTTTCCACTTGAAGATTTTAGGTTTGTTCATACTTAATGAATATAAAA  
CTAAAGGAGAAAAAGCCAACCTGAAATAATTTAACTTTATATGAACATTTGATAAGAGTTTGTGGATTTTTCT  
GTAGATAATATATTGATCCAGAACTCAAGTGCATGGAAACATGATTTTGAATTTTAAATCTAAAAAATAAAAA  
AATTAATAATCATGCTTCCCTCTATTGCAGTATCAGTTATTTAGTCACAGAATGGTATTTTATGTAAATTAATAAT

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**FIGURE 138B**

AGGTGAATGCAATGCAGGTAAC TGGTTTTGGAATGGGAATGTGCAGTGCTTTATGTTTGGGGAGTTGGAGCAGGG  
TATCTTTTCATCAATTAGAAGGAAAGTTTGAACTTCTGATTACCTTTATGTTGGTTTCTCTTATTATTTGTCTC  
TTGCTAGATCTGCTAAACCAACCCAGCTTGCTCAGAGATCTCATATTGAAGCAACATACAGGCAATCCACATCTT  
TCTTTCCCTTTGAAGTATAGTCATTGGATGGGATGAGGGACAGGGCCTGTTGGGTTACAGGGCCTTGCACTGCA  
TGGGCACATACTTAAAAGCTCTTGTGCA TGGAATCCCTGTCTGT TAGCCACAGGCCTCTTTAGCTCTATACATTC  
AAAATAACTACTGTAGTAGAAAATAGATAAGCTTCAGCTGAGTTGGCTTTTGATAGTGGA AAAAAAACAAAATTT  
GACTTTTTATGGCCAAAATTCCTTGTTGACAGCTGTGATGTTCTAATATGATTTGGGAATATGTCAGTCTACAGA  
ACCTGCATCCTGTAAAAACACCTTTGGGGTAGACGATAAAAGTCATTTTTAAGGCAAATACTTACCATGTGACTT  
TTTATTACCAAATGCATCAGTAGTGGAGCTGGTATGTTGTTTCATAGGATGGAAACATTAGAAGTCCAGAGAAAA  
ATAAATTTTAAAAAAGGTGGAAAAGTTACGGCAAACCTGAGATTTT CAGCATAAAAATCTTTAGTATGAAGTGAGA  
GAAAGAAGAGGGAGGCTGGTTCTGTTGCTCGTATCAATAGGTTATCTGTGTCCCTCATCTTGGTGTTACAGTGTT  
ATTTCTGTCAGTATTATGAATATGTGGTTGACCCATCCTGTCAAATGTACCAACATTTTCGAAAGAATTCATTCA  
AATCTCTTATGCCAACAGAAAAGTTCCTTCTTGT TTAATATCTCTTTACCTCAGTCCTACATTTTGATTCTCTGG  
AGGAGATTTTAGCTTGTCTTAAAAAGCCAAATTTGGAGTCATCAAGCCTGCTGAACCTGATGGGGCAGCTTTTGG  
AACAGCTTTCTGGAAGTAAGAACTTCAGTTGAAAAGCCCTTTGATCGCTTCAGCCCGGGACATGCCCTTCAGATG  
GCTTATTCTCAGTAAAGCTTTATGTAGACTGTGACACTGTATATGTGTGACTCGTACAAC TTTGACGTGTTTCTG  
AAGTGGTTTAATCGTATTTGTTATTAGCTTCTTTGTGGAAATGCAATTTTATACTAAAAACATTGCTTATTGTC  
AATGCAATATGTTATAAATTTGTTGTTTATATTACTGGTATTAGTCTTAGCCTAATGAACCTAATTATTTTCTT  
TCTGTATTCTTTGCTTCCTCAAATAGCATCTGCAGCAATTGGAATGAGAAATCCAGATATGTGTTTCAAGTAGTA  
CATTGCCTGAATCACAAATCACTTGATCACAGTATTGTATATAATCCCTGATCCTATTTGTTTCATTTTATTGTA  
AATTCCCATTTGCATCAAAACCTAATGATAGTGATTGGTAAGTAAAAACAAATGGTGTATTGCTTTTCATACAAG  
TGTTTTCACAAAAGCCATTTGCCTAGGCAGCAAAAAATATTAATTTGTT

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**FIGURE 139**

CTGAAGATGGCGGCTGCTGTAGGACGGTTGCTCCGAGCGTCGGTTGCCCCGACATGTGAGTGCCATTCCCTTGGGGC  
ATTTCTGCCACTGCAGCCCTCAGGCCTGCTGCATGTGGAAGAACGAGCTTGACAAATTTATTGTGTTCTGGTTCC  
AGTCAAGCAAAATTATTCAGCACCAGTTCCTCATGCCATGCACCTGCTGTCACCCAGCATGCACCCTATTTTAAG  
GGTACAGCCGTTGTCAATGGAGAGTTCAAAGACCTAAGCCTTGATGACTTTAAGGGGAAATATTTGGTGCTTTTC  
TTCTATCCTTTGGATTTACCTTTGTGTGTCCTACAGAAATTGTTGCTTTTAGTGACAAAGCTAACGAATTTTAC  
GATGTGAAGTGTGAAGTTGTCGCAGTCTCAGTGGATTCCCACTTTAGCCATCTTGCCTGGATAAATACACCAAGA  
AAGAATGGTGGTTTGGGCCACATGAACATCGCACTCTTGTGCACTTAAGTAAAGCAGATTTCCCGAGACTACGGT  
GTGCTGTTAGAAGGTTCTGGTCTTGCACTAAGAGGTCTCTTCATAATTGACCCCAATGGAGTCATCAAGCATTTG  
AGCGTCAACGATCTCCCACTGGGCCGAAGCGTGGAAGAAACCTCCGCTTGGTGAAGGCGTTCCAGTATGTAGAA  
ACACATGGAGAAGTCTGCCCAGCGAAGTGGACACCGGATTCTCCTACGATCAAGCCAAGTCCAGCTGCTTCCAAA  
GAGTACTTTTCAAGAGTAAATCAGTAGATCACCCATGTGTATCTGCACCTTCTCAACTGAGAGAAGAACCACAGT  
TGAAACCTGCTTTTATCATTTCAGATGGTTATTTGTAGAAGGCAAGGAACCAATTATGCTTGTATTTCATAAGT  
ATTACTCTAAATGTTTTGTTTTGTAAATCTGGCTAGGACCTTTTAAACATGGTTAGTTGCTAGTACAGGAATCG  
TTTATTGGTAACATCTTGGTGGCTGGCTAGCTAGTTTCTACAGAACATAATTTGCCTCTATAGAAGGCTATTCTT  
AGATCATGTCTCAATGGAAACACTCTTCTTTCTTAGCCTTACTTGAATCTTGCCTATAATAAAGTAGAGCAACAC  
ACATTGAAAGCTTCTGATCAACGGTCCTGAAATTTTCATCTTGAATGTCTTTGTATTAACTGAATTTTCTTTTA  
AGCTAACAAAGATCATAATTTCAATGATTAGCCGTGTAACCTGCAATGAATGTTTATGTGATTGAAGCAAT  
GTGAATCGTATTATTTTAAAAAGTGGCAGAGTGACTTAACTGATCATGCATGATCCCTCATCCCTGAAATTGAGT  
TTATGTAGTCATTTTACTTATTTTATTTCATTAGCTAACTTTGTCTATGTATATTTCTAGATATTGATTAGTGTA  
TCGATTATAAAGGATATTTATCAAATCCAGGGATTGCATTTTGAAATTATAATTATTTTCTTTGCTGAAGTATTC  
ATTGTAAACATACAAATAACATATTTAAACAAAAAAAAA

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**FIGURE 140**

MAAAVGRLLRASVARHVSAIPWGISATAALRPAACGRSLTNLLCSGSSQAKLFSTSSSCHAPAVTQHAPYFKGT  
AVVNGEFKDLSLDDFKGKYLVLFFYPLDFTFVCPTTEIVAFSDKANEFHDVNCEVVAVSVDSHFSLAWINTPRKN  
GGLGHMNIALLSDLTKQISRDIYGVLLGSGGLALRGLFIIDPNGVIKHLVNDLPVGRSVEETLRLVKAFQYVETH  
GEVCPANWTPDSPTIKPSPAASKEYFQKVNQ

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**FIGURE 141**

ACTTGGCCTTACACTCCGCTCGGCTCACC**ATG**TGTCACTCTCGCAGCTGCCACCCGACCATGACCATCCTGCAGG  
CCCCGACCCCGGCCCCCTCCACCATCCCGGGACCCCGGCGGGGCTCCGGTCCTGAGATCTTCACCTTCGACCCTC  
TCCCGGAGCCCGCAGCGGCCCTGCCGGGCGCCCCAGCGCCTCTCGCGGGCACCGAAAGCGCAGCCGCAGGGTCT  
CTCTACCCTCGAGTGGTGAGTATCGCCGAAGTGGGCATTTCGCGGTGTGCGCTGCCCTGGAGTCACTGGGGAACGA  
CCCGACTCCAGAGCCTCGACCTGACCTGTCTCCTGTTTTGTCTCCCCTTAGTCCGGCGCCAGCTGCCAGTCGAGG  
AACCGAACCCAGCCAAAAGGCTTCTCTTTCTGCTGCTCACCATCGTCTTCTGCCAGATCCTGATGGCTGAAGAGG  
GTGTGCCGGCGCCCCCTGCCTCCAGAGGACGCCCCCTAACGCCGCATCCCTGGCGCCACCCCTGTGTCCCCCGTCC  
TCGAGCCCTTTAATCTGACTTCGGAGCCCTCGGACTACGCTCTGGACCTCAGCACTTTCCTCCAGCAACACCCGG  
CCGCCTTCT**TAA**CTGTGACTCCCCGCACTCCCCAAAAAGAATCCGAAAAACCACAAAGAAACACCAGGCGTACCTG  
GTGCGCGAGAGCGTATCCCCAACTGGGACTTCCGAGGCAACTTGAACTCAGAACACTACAGCGGAGACGCCACCC  
GGTGCTTGAGGCGGGACCGAGGCGCACAGAGACCGAGGCGCATAGAGACCGAGGCACAGCCCAGCTGGGCTAGGC  
CGGTGGGAAGGAGAGCGTCGTTAATTTATTTCTTATTGCTCCTAATTAATATTTATATGTATTTATGTACGTCTT  
CCTAGGTGATGGAGATGTGTACGTAATATTTATTTAACTTATGCAAGGGTGTGAGATGTTCCCTCTGCTGTAAA  
TGCAGGTCTCTTGGTATTTATTGAGCTTTGTGGGACTGGTGGAAGCAGGACACCTGGAACCTGCGGCAAAGTAGGA  
GAAGAAATGGGGAGGACTCGGGTGGGGGAGGACGTCCCGGCTGGGATGAAGTCTGGTGGTGGGTCGTAAGTTTAG  
GAGGTGACTGCATCCTCCAGCATCTCAACTCCGTCTGTCTACTGTGTGAGACTTCGGCGGACCATTAGGAATGAG  
ATCCGTGAGATCCTTCCATCTTCTTGAAGTCGCCTTTAGGGTGGCTGCGAGGTAGAGGGTTGGGGGTTGGTGGGC  
TGTCACGGAGCGACTGTCGAGATCGCCTAGTATGTTCTGTGAACACAAATAAAATTGATTTACTGTCTGC

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**FIGURE 142**

MCHSRSCHPTMTILQAPTPAPSTIPGPRRGSGPEIFTFDPLPEPAAAPAGRPSASRGHRKRSRRVSLPSSGEYRR  
SGHSRCALPWSHWGTTRLQSLDLTCLLFCLPLVRRQLPVEEPNPAKRLLFLLLTIVFCQILMAEEGVPAPLPED  
APNAASLAPTPVSPVLEPFNLTSEPSDYALDLSTFLQQHPAAF



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**FIGURE 143A**

ATGGCAGAAGGTGTGAATGAGCCTTGTTTCCCGGGGACTGTGGCATATTTGTCACTAAAGTGGACAAAGGAAGC  
ATTGCTGATGGCCGCTTAAGGGTCAATGACTGGCTGCTGAGAATCAACGATGTGGACCTCATCAACAAGGACAAG  
AAGCAGGCCATCAAGGCGCTCCTCAATGGGGAGGGGGCCATCAACATGGTCGTGCGGCGGAGGAAGTCCCTGGGT  
GGGAAGGTGGTCACGCCGCTGCACATCAACCTCAGTGGACAGAAAGACAGTGGCATCAGTCTGGAGAATGGAGTG  
TATGCTGCCGCTGTGCTGCCGTGGAAGCCCTGCCGCTAAAGAAGGGTCCCTTGCTGTGGGAGACAGGATCGTTGCG  
ATCAATGGCATTGCACTGGACAACAAGTCTCTGAATGAATGTGAATCTCTGCTGCGGAGCTGCCAGGACTCCCTG  
ACCCTGTCCCTCCTGAAGGTATTCCTCAGAGCTCCTCGTGGAGTGGCCAGAACATTTTTGAAAATATCAAAGAC  
TCTGATAAGATGCTGAGTTTTTCGAGCCCATGGCCCCGAGGTCCAGGCTCATAACAAACGGAACCTTGATACAGCAC  
AATAACTCCACGCAGACAGACATCTTCTACACGGACAGGCTGGAAGACAGGAAGGAGCCAGGCCCCCAGGAGGC  
AGCAGCTCCTTTCTGCATAAGCCATTCCCTGGGGGACCTTGCAGGTCTGCCCCCAGGCCTGTCCCAGTGCCTCT  
GAGCGTAGCCTGAGCTCCTTCCGCTCAGATGCCTCTGGGGACCGTGGCTTTGGGCTGGTGGACGTGCGTGGCCGG  
CGGCCACTGCTGCCCTTTGAGACCGAGGTGGGCCCTGTGGGGTTGGGAGGCCTCCCTGGACAAGGCAGACTCT  
GAAGGCTCCAACAGCGCGGGACCTGGCCCAAGGCCATGCTCAGCTCCACGGCAGTGCCTGAGAAGCTCTCTGTT  
TATAAAAAGCCAAAGCAAAGAAAGTCCATCTTTGACCCTAACACTTTCAAACGCCCCCAGACACCCCCAAAATA  
GACTACCTGCTTCCAGGTCTGGGCTGCTCACTCTCCCCAGCCCTCCAAGAGGGCGGGGCTCTGACACCCCCA  
AAACCTCCCAGAAGGAGCGACTCCATTAAGTTCCAGCACAGGCTGGAGACTAGCTCCGAGTCAGAAGCCACTCTG  
GTGGGCAGTCCCCATCCACTAGTCCCCCGAGCGCCCTGCCCCCTGACGTGGACCCCGGGGAGCCCATGCACGCA  
TCACCCCTCGCAAGGCCAGGGTCCGCATTGCTTCCAGCTACTACCTGAAGGAGATGGGGACTCCTCCCACCTG  
CCGGCCAAGAAATCCTGTGATGAGGACCTCACCTCCCAGAAGGTGGATGAGCTGGGGCAGAAGCGTCGCCGGCCA  
AAATCTGCTCCCAGTTTTTCGGCCGAAGCTTGCTCCAGTAGTGATTCTGCTCAGTTCCTGGAGGAACAGAAGTGT  
GTCCCGGCCAGTGGAGAACTCTCCCCGAGCTCCAGGAGTGGGCACCTTACTCGCTGGGCATTCCAGCCGGCAC  
AGCAACCCCCCGCTATACCCTAGCAGGCCGTCTGTGGGTACTGTTCCCCGGAGTTTGACCCCCAGCACCACTGTG  
AGCTCCATCCTGCGGAACCCCATCTACACTGTGCGCAGTCACAGGGTTCGGCCCTGCAGCTCTCCACCTGCGGCC  
CGAGATGCTGGCCCCCAGGTTTGCATCCAGTGTCCAGCACAGGGACGCCTGAGCCTGGACCTGAGCCACAGG  
ACCTGCAGCGACTACTCCGAGATGAGAGCCACCCATGGGTCCAACCTCACTGCCCTCCAGCGCCCGCCTGGGTTCT  
TCGAGTAACCTTGCACTTCAAGGCGGAACGCATTAAATCCCATCAACACCAAGATATCCGCGGAGTGTCTGGGC  
TCCGAGAGAGGTTCACTGTACATTCTGAATGCAGCACTCCTCCACAGTCACCCCTGAACATCGACACCCTGTCC  
TCTTGTAGCCAGTCCCAGACCTCAGCCTCCACATTGCCCAGAATCGCTGTCAACCCCGCGTCCCTCGGGGAGCGG  
AGAAAGGACAGGCCTTATGTGGAGGAGCCACGCCACGTGAAGGTGCAGAAGGGCTCAGAGCCGCTGGGCATCTCC  
ATCGTGAGTGGAGAGAAGGGCGGCATCTACGTCTCCAAGGTGACCGTGGGGAGCATCGCTCACCAGGCTGGCCTC  
GAGTATGGGGATCAGTTACTGGAGTTCAACGGCATAAACCTGCGGAGCGCCACGGAGCAGCAGGCGCGGCTCATC  
ATCGGGCAGCAGTGTGATACCATCACCATCCTGGCCAGTACAACCCCCACGTGCACCAGCTCAGCAGCCACTCC  
CGGTCCAGCTCACACCTGGACCCTGCCGCTACCCACTCCACTCTCCAGGGCAGTGGCACCACCACCCCGGAGCAT  
CCATCTGTCTATCGACCCACTGATGGAGCAGGACGAGGGGCTAGCACCCCCCAGCCAAGCAGAGCAGCTCCAGG  
ATTGCGGGAGATGCCAACAAGAAGACCTGGAGCCACGCGTTGTCTTCATCAAAAAGTCCCAGCTGGAGCTTGGG  
GTGCACTTGTGTGGTGGGAACCTGCATGGGGTGTGTTGTGGCCGAGGTGGAGGATGACAGTCTGCCAAGGGTCTT  
GACGGCCTCGTGCCAGGGGACCTCATCTGGAGTATGGCAGCCTGGACGTGCGGAACAAGACAGTGGAGGAAGTC  
TATGTGGAGATGCTGAAGCCCAGGATGGCGTCCGCTGAAGGTGCAGTACCGCCCTGAGGAGTTCACGAAGGCC  
AAGGGCCTGCCTGGTGACAGCTTCTACATCAGGGCCCTGTACGACCGGCTGGCAGATGTGGAGCAAGAGTTGAGC  
TTTAAGAAGGACGACATCCTCTACGTGGATGACACCTTACCCCAGGGCACGTTCCGGTCTTGATGGCTTGGCAG  
CTGGACGAGAATGCCCAGAAGATCCAGCGCGGGCAGATTCCCAGCAAATATGTGATGGACCAAGAATTCTCCAGG  
AGGCTCAGCATGTCTGAAGTCAAAGATGACAATAGCGCCACAAAGACGCTGTACGCGGCTGCACGCCGGTCTTTT  
TTTCGGAGGAAACACAAGCACAAACGCAGCGGTCCAAGGACGGGAAAGACCTGCTCGCTTGATGCCTTTTCC  
AGTGACTCCATTCCACTCTTTGAAGATTCCGTGAGCCTGGCCTATCAGCGGGTCCAGAAGGTGGACTGCACCGCT  
CTGAGGCCTGTCTGATTCTGGGGCTTTGCTGGACGTGGTGAAGGAGATGCTGGTGAATGAGGCTCCTGGCAAG  
TTCTGCAGATGTCCCTTGAGGTGATGAAGGCCTCCAGCAGGCCATTGAGCGGGGTGTCAAAGATTGCCTGTTT  
GTCGACTATAAGCGGAGAAGCGGCCATTTGATGTGACCACTGTGGCGTCAATAAAGGAGATCACAGAAAAGAAC  
CGACACTGCCTCCTGGACATTGCTCCGCACGCTATTGAGCGGCTCCACCACATGCACATCTACCCCATTTGTCATC

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**FIGURE 143B**

TTCATCCACTACAAGAGCGCCAAGCACATCAAGGAGCAGAGAGACCCCATCTACCTGAGGGACAAGGTGACTCAG  
AGGCATTCCAAAGAGCAGTTTGAGGCGGCGCAGAAGCTTGAGCAGGAGTACAGCAGGTACTTCACAGGGGTCATC  
CAGGGAGGAGCCCTGTCAAGCATTGCACTCAGATCTTGGAATGGTCAATCAAGAACAAAATAAAGTCTGTGG  
ATTCCAGCCTGCCCCGTCTAGGAGAATGCTGTGCTGTGGATGACTGCAGCTGGCCGCTGAGGGGACGCCAGACT  
CAGCTCTTTTCTAGCGACTGAAAGTAGAAGTCTGTCTGTCTATGAACATGCGGGGGAAGGATCCGGAACCAGGAC  
CCAGAAGCACCTCCTTTGTAGACAGAGGGCCACGGCTGCGTGCGATCCAGGCCAGGCCACACACTCTGCCCCGT  
GTCACACGTGTGCTTTAACACAAAACAGATAACACTAAAGACGGGTTCAGCACCCACCTTTCTTTAGCCAGCTGA  
TCAGAGATGCTGCAAAGAGAACCTTTCGGATCACTCGTTTACAAGCCTTTTCTAAGTATTTGGTGGTTTATGTTT  
ACTTGAACGGCTCCATGTTGCCGGTGCCCAGCCCCCTGTCCCCTCTGTCAACCCCTGTGCTTTGGTGTGTTGGTTT  
CGTTCCCGTCTTCAGCAAAACGACCTTGGAACCTCAATGGGGGCTGCTTTGCTTTGGGAGGTTCTTGTGTTGGTGG  
ACCAGAGCTTTGACAAACCTCCTGCTCCTTGGTGGCACCTCTCCTGGAAGGACATCACAACCTCAGGTGCTCAGA  
CTGCCTGTGGCAGCAGAACCAAGTGCCCTTGGCATTTTCTCCACAATGGGGAAGGTGACTTTGGCATTCTTACA  
AACTCGTCTCTCGGCCCTTCTCTCCTGCCTTCCACAGCCTCTCGTTTCTCCTCCATCTGTGCTTATTACTTGAGG  
ACTGTGTCTGCTCCGTGAGAGCTGCGTGGGCAGGGCTGCAGTGGGGTCCAGGTGGTGTTCAGCTGTGCTGATGCC  
TGCCATTGGGTCTCTCCTTAGGCTCTGTAAGTCGTGACAGCCTTCATCAGTGCAATGTTTGACAGGTAATTCTTAA  
ACTTTTTAGAGGGTGGCAGGTACATCAGTTCTTTTTGATATGAAAACATTCATGTTTCAGACATTGAATTGAGAG  
CTTTTAGGGGAAGCATAATGGTTATTGTCACTATCAACAGTCTAAAAAGAAAACTGAGGTCTTTTTTAATCTTGA  
TTACAGCACTCACGGCATGCACCCTACTCAGTGTGGGTGTCTTCGTTTGGGGGCTTTTTTTTTTTTTTGCACCTCT  
GAGGCTAGATATGTCTGGCTGAAGATTTGATGTGGTTCCTCCTTAAGCTATGCGTCCTGTTAATAATAGGTAAGT  
TACTGGGCTCTGTGTAAGTGTGTTGGGTAGGACCTATATTTTAATACTGTTCTTAACATTTTCAATTTTACTAGC  
GAGAAATCTTTGATTTTCAATTTTATTCTTTGTAATTTCTAGACACTAGATTGTAGTTTAGCCATAACTGATGTTTTT  
TAAAAAGGGATATATTTTCTTGACAGTTGTTCAAAAAAGAGACAAGTTTCAGTCCTCAATGCTGTCCTTTGTTT  
TACAGGTACAAGTTTTCTAGCTCAGACAACTATGAAAACTGTAGACTATTCTCAAGGTATTAACCTCGCAGACC  
CTCTGGGGGTAGGGGCTGTTTTCTAAGTTACAGGCAGAGTGGGACTGAGATGGTACAGTGTGCACAGACAGGTAC  
TGAGCTGACAGACTGGGATTTTCTGTACTAAAATGTTACTTTGTATCAAAAGTTAAACAGGCTTTAGTACAACAA  
ATAAAGGTCAATTTCTGT

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**FIGURE 144**

CGCAACGCCGGTGCCTGAGGAGCG**ATG**CCGAGGGAAATCATCACCCCTACAGTTGGGCCAGTGCGGCAATCAGATT  
GGGTTTCGAGTTCTGGAAACAGCTGTGCGCCGAGCATGGTATCAGCCCCGAGGCGATCGTGGAGGAGTTCGCCACC  
GAGGGCACTGACCGCAAGGACGTCTTTTTCTACCAGGCAGACGATGAGCACTACATCCCCGGGCCGTGCTGCTG  
GACTTGGAACCCCGGGTGATCCACTCCATCCTCAACTCCCCCTATGCCAAGCTCTACAACCCAGAGAACATCTAC  
CTGTGCGAACATGGAGGAGGAGCTGGCAACAACCTGGGCCAGCGGATTCTCCAGGGAGAAAAGATCCATGAGGAC  
ATTTTTGACATCATAGACCGGGAGGCAGATGGTAGTGACAGTCTAGAGGGCTTTGTGCTGTGTCACTCCATTGCT  
GGGGGGACAGGCTCTGGACTGGGTTCCCTACCTCTTAGAACGGCTGAATGACAGGTATCCTAAGAAGCTGGTGCAG  
ACATACTCAGTGTTTCCCAACCAGGACGAGATGAGCGATGTGGTGGTCCAGCCTTACAATTCCTCCTCACACTC  
AAGAGGCTGACGCAGAATGCAGACTGTCTGGTGGTGTGTTGGACAACACAGCCCTGAACCGGATTGCCACAGACCGC  
CTGCACATCCAGAACCCATCCTTCTCCAGATCAACCAGCTGGTGTCTACCATCATGTCTAGCCAGCACCACCACC  
CTGCGCTACCCTGGCTACATGAACAATGACCTCATCGGCCTCATCGCCTCGCTCATTCCCACCCACGGCTCCAC  
TTCCTCATGACCGGCTACACCCCTCTCACTACGGACCAGTCAGTGGCCAGCGTGAGGAAGACCACGGTCTCTGGAT  
GTCATGAGGCGGCTGCTGCAGCCCAAGAACGTGATGGTGTCCACAGGCCGAGACCGCCAGACCAACCACTGCTAC  
ATCGCCATCCTCAACATCATCCAGGGAGAGGTGGACCCCAACCCAGGTCCACAAGAGCTTGAGAGGATCCGGGAA  
CGCAAGTTGGCCAACTTCATCCCGTGGGGCCCCGCCAGCATCCAGGTGGCCCTGTGAGGAAGTCTCCCTACCTG  
CCCTCGGCCCCACGGGTCAGCGGGCTCATGATGGCCAACCACACCAGCATCTCCTCGCTCTTCGAGAGAACCTGT  
CGCCAGTATGACAAGCTGCGTAAGCGGGAGGCCTTCTGGAGCAGTTCGCAAGGAGGACATGTTCAAGGACAAC  
TTTGATGAGATGGACACATCCAGGGAGATTGTGCAGCAGCTCATCGATGAGTACCATGCGGCCACACGGCCAGAC  
TACATCTCCTGGGGCACCCAGGAGCAG**TGAG**TCCCCCAGGACAGGGGACCCCTCATCTGCCTTACTGGTTGGCCCA  
AGCCCTGCCTGACTGACCACCCCTCAGAGCACAGATCAGGGACCTCACGCATCTCTTTCTCATATACATGGACT  
CTCTGTTGGCCTGCAAACACATTTACTTCTCCTCTTATGAGACTATTTATCTTTAATAAAGCACTGGG

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**FIGURE 145**

MPREIITLQLGQCGNQIGFEFWKQLCAEHGISPEAIVEEFATEGTDRKDVFFYQADDEHYIPRAVLLDLEPRVIH  
SILNSPYAKLYNPENIYLSEHGGGAGNNWASGFSQGEKIHEDIFDIIIDREADGSDSLEGFVLCHSIAGGTGSGLG  
SYLLERLNDRYPKKLVQTYSVFPNQDEMSDVVVQPYNLLTLKRLTQNADCLVVDNTALNRIATDRLHIQNPSF  
SQINQLVSTIMSASTTTLRYPGYMNNDLIGLIASLIPTPRLHFLMTGYTPLTTDQSVASVRKTTVLDVMRRLQP  
KNVMVSTGRDRQTNHCYIAILNIIQGEVDPTQVHKSLQRIRERKLANFIPWGPASIQVALSRKSPYLP SAHRVSG  
LMMANHTSISSLFERTCRQYDKLRKREAFLEQFRKEDMFKDNFDEMDTSREIVQQLIDEYHAATRPDYISWGTQE  
Q

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**FIGURE 146**

AGATAACAAGAGTAATCCACAGACTTAAAAC**ATG**AGCTCAGATGCCAGCCAAGGCGTGATTACCACTCCTCCTCC  
TCCCAGCATGCCTCACAAAGAGAGATATTTTGACCGCATCAATGAAAATGACCCAGAATACATTAGGGAGAGGAA  
CATGTCTCCTGATCTACGACAAGACTTCAACATGATGGAGCAGAGGAAACGAGTTACTCAGATCCTGCAAAGTCC  
TGCCTTTCGGGAAGACTTGGAATGCCTTATTCAAGAACAGATGAAGAAAGGCCACAACCCAACTGGATTACTAGC  
ATTACAGCAGATTGCAGATTACATCATGGCCAATTCTTTCTCGGGTTTTTCTTCACCTCCTCTCAGTCTTGGCAT  
GGTCACACCTATCAATGACCTTCCTGGTGAGATACATCCTCATATGTGAAGGGAGAAAACTTACTCGCTGTAA  
ACTTGCCAGCCTGTACAGACTTGTAGACTTGTGGATGGGCACACCTGGCAAATACCTATATCTCAGTAAGAAT  
AAGTAAGGAGCAAGACCACATTATAATAATCCCAGAGGCCTATCTTTTTCTGAAGCTACAGCCTCCAATTTGGT  
GAAAGTCAATATAATAGGAGAAAGTGGTTGACCAGGGAAGTACCAATTTGAAAATTGACCATACAGGATTAGTCC  
CCATGCTGCAATCTATTCAACACGTCCTGATGTTAAGTGTGTCATACACATCCATACCTTGCAACAGCAGCTGT  
ATCCTCCATGAAATGTGGGATCCTTCCAATTTCTCAAGAGTCTCTTCTTCTGGGAGATGTTGCCTATTATGACTA  
CCAAGGGTCACTTGAAGAACAGGAGGAGAGAATTCAACTGCAGAAGGTCTGGGACCAAGTTGTAAGGTGCTGGT  
ACTCAGGAATCATGGTGTGGTTGCACCTGGAGAAACATTAGAGGAGGCTTTTCATTATATTTTAAATGTGCAACT  
AGCCTGTGAGATTAGGTGCAGGCCCTAGCAGGTGCAGGTGGAGTAGACAATCTCCATGTACTGGACTTTTCAGAA  
GTATAAAGCTTTCACTTACACTGTAGCAGCGTCTGGTGGAGGAGGTGTGAATATGGGTTCCCATCAAAAATGGAA  
GGTTGGCGAAATTGAGTTTGAAGGGCTTATGAGGACTCTGGACAACCTGGGGTATAGAACAGGCTATGCTTACAG  
GCATCCTCTCATTGAGAGAAGCCTAGGCACAAGAGTGATGTGGAAATCCCAGCAACTGTGACTGCTTTTTCTT  
TGAAGACGATACAGTGCCACTCTCTCTCTCAAATACATGGCACAGAGGCAACAGCGTGAAAAACAAGATGGCT  
GAACTCACCAATACTTACATGAAAGTGAATGTGCCTGAGGAGTCTCGGAACGGAGAAACCAGTCCCCGAACCA  
AATCACGTGGATGAAAGCAGAAGACTCATCTAAAGTTAGTGGTGGAAACACCTATCAAAATTGAAGATCCAATCA  
GTTTGTTCCTTTAAACACAAACCCGAATGAGGTACTAGAAAAGAGAAATAAGATTCGGGAACAAAATCGATATGA  
CTTGAAAACAGCAGGACCACAATCTCAGTTGCTTGCTGGAATTGTTGTGGATAAGCCACCTTCTACTATGCAATT  
TGAAGATGATGATCATGGCCCACCAGCTCCTCCTAACCATTAGTCATCTCACAGAAGGAGAACTTGAAGAGTA  
TAAGAGGACAATCGAACGTAAACAACAAGGCCTAGAAGATGCTGAGCAGGAATTACTCTCAGATGACGCTTCATC  
TGTTTCACAAATTCAGTCTCAAACCTCAGTCACCGCAAAATGTCCCTGAAAAATTAGAAGAAAACCATGAGCTGTT  
TTCCAAGAGCTTCATCTCCATGGAAGTGCCTGTATGGTAGTAAATGGCAAGGATGATATGCATGATGTTGAAGA  
TGAGCTTGCTAAGCGAGTGAGTAGGTTAAGCACAAAGTACAACCATAGAAAAACATCGAGATTACTATTAAGTCTCC  
AGAGAAAAATCGAAGAAGTCTGTACCTGAAGGCTCCCTTCAAAATCGCCATCCAAGAAAAAGAAGAAATTCGG  
CACTCCTTCTTTTCTGAAAAAGAACAAAAAAGGAGAAAGTTGAGGCC**TAAA**TAAAGTCTTTTTATAATTATTA  
TTATAACAATGTGACATTGCACATCTAAATACCACATTTAAGTTGATCATTAATATGCAATGGTAGATCAGATTG  
GGGGATGTAGCAAACTGGACTTTAAGAACTGGAAAGAGGTTTTACAAAAGAAAACTTTTCAATTCTCTCAT  
TTTATATGTCCAGAAATGGCTTTGAATTTAAGCAATTACTAGTTTTAATTAGCTCTGCCCTCATGAAGTATTAT  
TATAATTCACCATAAACAGCTATCTGTCTGAATTACTTCAGGCCTTCTCCATAATATCTGTTAGAAAGAAATTGC  
CAGTGAGCAAGTGAGAATTTTTATTTCTCAATACCTGCTTCACTTGATAATCATATTATAATTTTTTATCATGAT  
TATTGACTATATTTTGGAGTCCCATTGTTTCAGTGGGCATTAACAGAATGCTTTAAAACTTCTAAGACAAGAA  
TCTATAGCATTAGTATACACTGGCACATAATTTTTTAAAAAGTTTTAAGAAAAGATTCAATTTGGAATTTTTATTCA  
CAGTATAAAATTTCTCCTCACTGAAGTAACTTTGTTTGCCAAAAAGTTGTTTTAATAAACTATAATTTTTGAAAA  
CTTCCTTTTTTATTAGTTTAGAAAAGCCCCTATTTTTCAACAAAGGGGATTTGTACACATAACATGGGTTATTT  
AGTTTAACTCTGGC

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**FIGURE 147**

MSSDASQGVITTPPPSPMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVQTQILQSPAFREDLECLI  
QEQMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGEKLTRCKLASLYRLVDL  
FGWAHLANTYISVRISKEQDHIIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDHTGFSPHAAIYSTRPD  
VKCVIHIHTLATAAVSSMKCGILPISQESLLLGDVAYDYQGSLEEQEERIQLQKVLGPSCKVLVLRNHGVVALG  
ETLEEAHYIFNVQLACEIQVQALAGAGGVNDLHVLDLQKYKAFTYTVAAASGGGGVNMGSHQKWKVGEIEFEGLM  
RTLDNLGYRTGYAYRHPLIREKPRHKSDEIPATVTAFSFEDDTVPLSPLKYMAQRQQREKTRWLNPNNTYMKVN  
VPEESRNGETSPRTKITWKAEDSSKVSOGTPIKIEDPNQFVPLNTNPNEVLEKRNKIREQNRYDLKTAGPQSOL  
LAGIVVDKPPSTMQFEDDDHGPPAPPNPFSLTEGELEEYKRTIERKQQGLEDAEQELLSDDASSVSQIQSQTQS  
PQNVPEKLEENHELFSKSFISMEVPVMVNGKDDMHDVEDELAKRVSRLSTTTIENIEITIKSPEKIEEVLSP  
GSPSKSPSKKKKKFRTPSFLKKNKKKEKVEA

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**FIGURE 148**

AGATAACAAGAGTAATCCACAGACTTAAAACATGAGCTCAGATGCCAGCCAAGGCGTGATTACCACTCCTCCTCC  
TCCCAGCATGCCTCACAAAGAGAGATATTTTGACCGCATCAATGAAAATGACCCAGAATACATTAGGGAGAGGAA  
CATGTCTCCTGATCTACGACAAGACTTCAACATGATGGAGCAGAGGAAACGAGTTACTCAGATCCTGCAAAGTCC  
TGCCTTTTCGGGAAGACTTGGAATGCCTTATTCAAGAACAGATGAAGAAAGGCCACAACCCAAGTGGATTACTAGC  
ATTACAGCAGATTGCAGATTACATCATGGCCAATTCTTTCTCGGGTTTTTCTTCACCTCCTCTCAGTCTTGCGAT  
GGTCACACCTATCAATGACCTTCCTGGTGCAGATACATCCTCATATGTGAAGGGAGAAAACTTACTCGCTGTAA  
ACTTGCCAGCCTGTACAGACTTGTAGACTTGTGTTGGATGGGCACACCTGGCAAATACCTATATCTCAGTAAGAAT  
AAGTAAGGAGCAAGACCACATTATAATAATTCCCAGAGGCCTATCTTTTTCTGAAGCTACAGCCTCCAATTTGGT  
GAAAGTCAATATAATAGGAGAAGTGGTTGACCAGGGAAGTACCAATTTGAAAATTGACCATACAGGATTGAGTCC  
CCATGCTGCAATCTATTCAACACGTCCTGATGTTAAGTGTGTCATACACATCCATACCCTTGCAACAGCAGCTGT  
ATCCTCCATGAAATGTGGGATCCTTCCAATTTCTCAAGAGTCTCTTCTTCTGGGAGATGTTGCCTATTATGACTA  
CCAAGGGTCACCTGAAGAACAGGAGGAGAGAAATCAACTGCAGAAGGTTCTGGGACCAAGTTGTAAGGTGCTGGT  
ACTCAGGAATCATGGTGTGGTTGCACTTGGAGAAACATTAGAGGAGGCTTTTCATTATATTTTTAATGTGCAACT  
AGCCTGTGAGATTGAGGTGCAGGCCCTAGCAGGTGCAGGTGGAGTAGACAATCTCCATGTACTGGACTTTTCAGAA  
GTATAAAGCTTTCACTTACACTGTAGCAGCGTCTGGTGGAGGAGGTGTGAATATGGGTTCCCATCAAAAATGGAA  
GGTTGGCGAAATTGAGTTTGAAGGGCTTATGAGGACTCTGGACAACCTGGGGTATAGAACAGGCTATGCTTACAG  
GCATCCTCTCATTGAGAGAAAGCCTAGGCACAAGAGTGATGTGGAAATCCCAGCAACTGTGACTGCTTTTTCTT  
TGAAGACGATACAGTGCCACTCTCTCCTCTCAAATACATGGCACAGAGGCAACAGCGTGAAAAACAAGATGGCT  
GAACTCACCAATACTTACATGAAAGTGAATGTGCCTGAGGAGTCTCGGAACGGAGAAACCAGTCCCCGAACCAA  
AATCACGTGGATGAAAGCAGAAGACTCATCTAAAGTTAGTGGTGGAAACACCTATCAAAATTGAAGATCCAAATCA  
GTTTGTTCCTTTAAACACAAACCCGAATGAGGTACTAGAAAAGAGAAATAAGATTTCGGGAACAAAATCGATATGA  
CTTGAAAACAGCAGGACCACAATCTCAGTTGCTTGCTGGAATTGTTGTGGATAAGCCACCTTCTACTATGCAATT  
TGAAGATGATGATCATGGCCACCAGCTCCTCCTAACCCATTTAGTCATCTCACAGAAGGAGAACTTGAAGAGTA  
TAAGAGGACAATCGAACGTAAACAACAAGGCCTAGAAGAAAACCATGAGCTGTTTTCCAAGAGCTTCATCTCCAT  
GGAAGTGCCTGTCTATGGTAGTAAATGGCAAGGATGATATGCATGATGTTGAAGATGAGCTTGCTAAGCGAGTGAG  
TAGGTAAAGCACAAAGTACAACCATAGAAAACATCGAGATTACTATTAAGTCTCCAGAGAAAATCGAAGAAGTCCT  
GTCACCTGAAGGCTCCCTTTCAAATCGCCATCCAAGAAAAGAAGAAATTCCGCACTCCTTCTTTTTCTGAAAAA  
GAACAAAAAAGAGAGAAAGTTGAGGCCTAAAATAAAGTCTTTTTATAATTATTATTATAACAATGTGACATTGCA  
CATCTAAATACCACATTTAAGTTGATCATTAAATATGCAATGGTAGATCAGATTGGGGGATGTAGCAAACCTGGACT  
TTAAGAAGTGGAAAGAGGTTTTACAAAAGAAAACTTTGAGATTCATCTCTCATTTTTATATGTCCAGAAATGGCT  
TTGAATTTTAAGCAATTACTAGTTTTAATTAGCTCTGCCCTCATGAAGTATTATTATAATTCACCATAAACAGCT  
ATCTGTCTGAATTACTTCAGGCCTTCTCCATAATATCTGTTAGAAAGAAATTGCCAGTGAGCAAGTGAGAATTTT  
TATTTCTCAATACCTGCTTCACTTGATAATCATATTATAATTTTTTATCATGATTATTGACTATATTTTTGGAGT  
CCCATTGTTTCAGTGGGCATTAACAGAATGCTTTAAAACTTCTAAGACAAGAATCTATAGCATTAGTATACACT  
GGCACATAATTTTTTAAAAAGTTTTAAGAAAAGATTCATTTGGAATTTTATTCACAGTATAAAATTCCTCACCT  
GAAGTAACTTTGTGTTGCCAAAAAGTTGTTTTAATAAACTATAATTTTGAAAACCTCCTTTTTTATTAGTTTAG  
AAAGCCCCTTATTTTTCAACAAAGGGGATTTTGTACACATAACATGGGTTATTTAGTTTAACTCTGGC

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**FIGURE 149**

MSSDASQGVITTPPPSPMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVTQILQSPAFREDLECLI  
QEQMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGEKLTRCKLASLYRLVDL  
FGWAHLANTYISVRISKEQDHIIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDHTGFSPHAAIYSTRPD  
VKCVIHIHTLATAAVSSMKCGILPISQESLLLGDVAYDYQGSLEEQEERIQLQKVLGPSCKVLVLRNHGVVALG  
ETLEEAFFHYIFNVQLACEIQVQALAGAGGVNDLHVLDLQKYKAFTYTVAAASGGGGVNMGSHQKWKVGEIEFEGLM  
RTLDNLGYRTGYAYRHPLIREKPRHKSDVEIPATVTAFSFEDDTVPLSPLKYMAQRQQREKTRWLNPNNTYMKVN  
VPEESRNGETSPRTKITWMKAEDSSKVSGGTPIKIEDPNQFVPLNTNPNNEVLEKRNKIREQNRDYLKTAGPQSQL  
LAGIVVDKPPSTMQFEDDDHGPPAPPNPFSLTEGELEEYKRTIERKQQGLEENHELFSKSFISMEVPVMVVNGK  
DDMHDVEDELAKRVSRLSTSTTIENIEITIKSPEKIEEVLSPGSPSKSPSKKKKKFRTPSFLKKNKKKEKVEA



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**FIGURE 150**

TTTTCCCGCAAACCTCGGCGGCTGAGCGTGGAGGTTCTTGTCTCCCTGGTTTGTGAAGTGC GGAAAACAGAGG  
CGCAGTCAATGTCGGGATTTCGACGATCCTGGCATTCTTCTACAGCGACAGCTTCGGGGGCGACGCCAGGCCGACGA  
GGGGCAGGCCCGCAAATCGCAGCTGCAGAGGCGCTTCAAGGAGTTCTGCGGCAGTACCGAGTGGGCACCGACCG  
CACGGGCTTCACCTTCAAATACAGGGATGAACTCAAGCGGCATTACAACCTGGGGGAGTACTGGATTGAGGTGGA  
GATGGAGGATCTGGCCAGCTTTGATGAGGACCTGGCCGACTACTTGTACAAGCAGCCAGCCGAGCACCTGCAGCT  
GCTGGAGGAAGCTGCCAAGGAGGTAGCTGATGAGGTGACCCGGCCCCGGCCTTCTGGGGAGGAGGTGCTCCAGGA  
CATCCAGGTCATGCTCAAGTCGGACGCCAGCCCTTCCAGCATTCGTAGCCTGAAGTCGGACATGATGTCACACCT  
GGTGAAGATCCCTGGCATCATCATCGCGGCCTCTGCGGTCCGTGCCAAGGCCACCCGCATCTCTATCCAGTGCCG  
CAGCTGCCGCAACACCCCTCACCAACATTGCCATGCGCCCTGGCCTCGAGGGCTATGCCCTGCCCAGGAAGTGCAA  
CACAGATCAGGCTGGACGCCCCAAATGCCCATTTGGACCCGTA CTTCATCATGCCCGACAAATGCAAATGCGTGGA  
CTTCCAGACCCCTGAAGCTGCAGGAGCTGCCTGATGCAGTCCCCACGGGGAGATGCCCAGACACATGCAGCTCTA  
CTGCGACAGGTACCTGTGTGACAAGGTCGTCCCTGGGAACAGGGTTACCATCATGGGCATCTACTCCATCAAGAA  
GTTTGGCCTGACTACCAGCAGGGGCCGTGACAGGGTGGGCGTGGGCATCCGAAGCTCCTACATCCGTGTCTGGG  
CATCCAGGTGGACACAGATGGCTCTGGCCGCAGCTTTGCTGGGGCCGTGAGCCCCCAGGAGGAGGAGGAGTTCCG  
TCGCTGGCTGCCCTCCCAAATGTCTATGAGGTCACTCCAAGAGCATCGCCCCCTCCATCTTTGGGGGCACAGA  
CATGAAGAAGGCCATTGCCTGCCTGCTCTTTGGGGCTCCCGAAAGAGGCTCCCTGATGGACTTACTCGCCGAGG  
AGACATCAACCTGCTGATGCTAGGGGACCCTGGGACAGCCAAGTCCAGCTTCTGAAGTTTGTGGAGAAGTGTTT  
TCCCATTGGGGTATACACGTCTGGGAAAGGCAGCAGCGCAGCTGGACTGACAGCCTCGGTGATGAGGGACCCCTC  
GTCCCGGAATTTTCATCATGGAGGGCGGAGCCATGGTCCTGGCCGATGGTGGGGTCGTCTGTATTGACGAGTTGA  
CAAGATGCGAGAAGATGACCGTGTGGCAATCCACGAAGCCATGGAGCAGCAGACCATCTCTATCGCCAAGGCTGG  
GATCACCACCACCCCTGAACTCCCGCTGCTCCGTCTGGCTGCTGCCAACTCAGTGTTTCGGCCGCTGGGATGAGAC  
GAAGGGGGAGGACAACATTGACTTTCATGCCCACCATCTTGTGCGGCTTCGACATGATCTTCATCGTCAAGGATGA  
GCACAATGAGGTGAGGGATGTGATGCTGGCCAAGCATGTCATCACTCTGCACGTGAGTGCAGTACACAGACACA  
GGCTGTGGAGGGCGAGATTGACCTGGCCAAGCTGAAGAAGTTTATTGCCTACTGCCGAGTGAAGTGTGGCCCCCG  
GCTGTGAGCAGAGGCTGCAGAGAACTGAAGAACCCTACATCATCATGCGGACGGGGCCCGTCAGCACGAGAGG  
GACAGTGACCGCGTCCAGCATCCCCATCACTGTGCGGCAGTTGGAGGGCCATTGTGCGCATCGCGGAAGCCCTCAG  
CAAGATGAAGCTGCAGCCCTTCGCCACAGAGGCAGATGTGGAGGAGGCCCTGCGGCTCTTCCAAGTGTCCACGTT  
GGATGCTGCCTTGTCCGGTACCCTGTCAGGGGTGGAGGGCTTCACCAGCCAGGAGGACCAGGAGATGCTGAGCCG  
CATCGAGAAGCAGCTCAAGCGCCGCTTTGCCATTGGCTCCCAGGTGTCTGAGCACAGCATCATCAAGGACTTCAC  
CAAGCAGAAATACCCGGAGCAGCCATCCACAAGGTGCTGCAGCTCATGCTGCGGCGCGGCGAGATCCAGCATCG  
CATGCAGCGCAAGGTTCTTACCGCCTCAAGTAGTCGCGCCGCTCACTGGACTCATGGACTCGCCACGCTCGCC  
CTCCTTGCCGCTGCCTGCCATTGACAATGTTGCTGGGACCTCTGCCTCCCCACTGCAGCCCTCGAACTTCCCAGG  
CACCCTCCTTTCTGCCCCAGAGGAAGGAGCTGTAGTGTCTGCTGCCTCTGGGCGCCCGCTCTAGCGGGTTCTGG  
GAAGTGTGCTTTTGGCATCCGTTAATAATAAAGCCACGGTGTGTTTCAGGT

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**FIGURE 151**

MSGFDDPGIFYSDSFGGDAQADEGQARKSQLQRRFKEFLRQYRVGTDRTGFTFKYRDELKRHYNLGEYWIEVEME  
DLASFDEDLADYLYKQPAEHLQLLEEAAKEVADEVTRPRPSGEEVLQDIQVMLKSDASPSSIRSLKSDMMSHLVK  
IPGIIIAASAVRAKATRISIQCRSCRNTLTNIAMRPGLEGYALPRKCNTDQAGRPKCPLDPYFIMPDKCKCVDFQ  
TLKLQELPDAPVPHGEMPRHMLYCDRYLCDKVVPGNRVTIMGIYSIKKFGLTTSRGRDRVGVGIRSSYIRVLGIQ  
VDTDGSGRSFAGAVSPQEEEEFRRLAALPNVYEVISKSIAPSIFFGGTDMKKAIACLLFGGSRKRLPDGLTRRGDI  
NLLMLGDPGTAKSQLLKFVEKCSPIGVYTSKGSSAAGLTASVMRDPSSRNFIGEGGAMVLADGGVVCIDEFDKM  
REDDRVAIHEAMEQQTISIAGITTTLSRCSVLAAANSVFGRWDETKGEDNIDFMPTILSRFDMIFIVKDEHN  
EVRDVMLAKHVITLHVSALTQTQAVEGEIDLAKLKKFIAYCRVKCGPRLSAEAAEKLKNRYIIMRTGPVSTRGTV  
TASSIPITVRQLEAIVRIAEALSKMKLQPFATEADVEEALRLFQVSTLDAALSGTSLSGVEGFTSQEDQEMLSRIE  
KQLKRRFAIGSQVSEHSIIKDFTKQKYPEHAHVKVLQMLLRGEIQHRMQRKVLYRLK

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**FIGURE 152**

ATATAACCGCGTGGCCCGCGCGCGCTTCCCTCCCGGCGCAGTCACCGGCGCGGTCTATGGCTGCGACTTCTCT  
**AATG**TCTGCTTTGGCTGCCCCGGCTGCTGCAGCCCGCGCACAGCTGCTCCCTTCGCCTTCGCCCTTTCCACCTCGC  
GGCAGTTCGAAATGAAGCTGTTGTCAATTTCTGGAAGGAACTGGCCCAGCAGATCAAGCAGGAAGTGCGGCAGGA  
GGTAGAAGAGTGGGTGGCCTCAGGCAACAAACGGCCACACCTGAGTGTGATCCTGGTTGGCGAGAATCCTGCAAG  
TCACTCCTATGTCTCAACAAAACCAGGGCAGCTGCAGTTGTGGGAATCAACAGTGAGACAATTATGAAACCAGC  
TTCAATTTAGAGGAAGAATTGTTGAATTTAATCAATAAACTGAATAATGATGATAATGTAGATGGCCTCCTTGT  
TCAGTTGCCTCTTCCAGAGCATATTGATGAGAGAAGGATCTGCAATGCTGTTTCTCCAGACAAGGATGTTGATGG  
CTTTTCATGTAATTAATGTAGGACGAATGTGTTTGGATCAGTATTCCATGTTACCGGCTACTCCATGGGGTGTGTG  
GGAAATAATCAAGCGAACTGGCATTCCAACCCTAGGGAAGAATGTGGTTGTGGCTGGAAGGTCAAAAAACGTTGG  
AATGCCCATTGCAATGTTACTGCACACAGATGGGGCGCATGAACGTCCCGGAGGTGATGCCACTGTTACAATATC  
TCATCGATATACTCCCAAAGAGCAGTTGAAGAAACATACAATTCCTTGAGATATTGTAATATCTGCTGCAGGTAT  
TCCAAATCTGATCACAGCAGATATGATCAAGGAAGGAGCAGCAGTCATTGATGTGGGAATAAATAGAGTTCACGA  
TCCTGTAAGTGCACAAACCCAAGTTGGTTGGAGATGTGGATTTTGAAGGAGTCAGACAAAAAGCTGGGTATATCAC  
TCCAGTTCTTGGAGGTGTTGGCCCCATGACAGTGGCAATGCTAATGAAGAATACCATTATTGCTGCAAAAAAGGT  
GCTGAGGCTTGAAGAGCGAGAAGTGTGAAGTCTAAAGAGCTTGGGGTAGCCACTAAT**TAA**CTACTGTGTCTTCT  
GTGTCACAAACAGCACTCCAGGCCAGCTCAAGAAGCAAAGCAGGCCAATAGAAATGCAATATTTTAAATTTATTC  
TACTGAAATGGTTTAAATGATGCCTTGTATTTATTGAAAGCTTAAATGGGTGGGTGTTTCTGCACATACCTCTG  
CAGTACCTCACCAGGGAGCATTCCAGTATCATGCAGGGTCTGTGATCTAGCCAGGAGCAGCCATTAACCTAGTG  
ATTAATATGGGAGACATTACCATATGGAGGATGGATGCTTCACTTTGTCAAGCACCTCAGTTACACATTGCCTT  
TTCTAGGATTGCATTTCCCAAGTGCTATTGCAATAACAGTTGATACTCATTTTAGGTACCAGACCTTTTGAGTTC  
AACTGATCAAACCAAAGGAAAAGTGTGCTAGAGAAAATTGGGGAAAAGGTGAAAAAGAAAAATGGTAGTAATT  
GAGCAGAAAAAAATTAATTTATATATGATTGATTGGCAACCAGATTTATCTAAGTAGAACTGAATTGGCTAGGA  
AAAAAGAAAAACTGCATGTTAATCATTTTCCTAAGCTGTCTTTTGAGGCTTAGTCAGTTTATTGGGAAAATGTT  
TAGGATTATTCTTGTCTATTAGTACTCATTTTATGTATGTTACCCCTCAGTAAGTTCTCCCCATTTTAGTTTTCT  
AGGACTGAAAGGATTCTTTTCTACATTATACATGTGTGTTGTGCATATTTGGCTTTTGCTATATACTTTAACTTCA  
TTGTTAAATTTTTGTATTGTATAGTTTCTTTGGTGTATCTTAAACCTATTTTGAAGAAACAACTTGCTTGAT  
AATCATTTGGGCAGCTTGGGTAAGTACGCAACTTACTTTTCCACCAAAGAACTGTCAGCAGCTGCCTGCTTTTCT  
GTGATGTATGTATCCTGTTGACTTTTCCAGAAATTTTTTAAGAGTTTGAGTTACTATTGAATTTAATCAGACTTT  
CTGATTAAAGGGTTTTCTTTCTTTTTTAATAAACACATCTGTCTGGTATGGTA

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**FIGURE 153**

MSALAARLLQPAHSCSLRLRPFHLAAVRNEAVVISGRKLAQQIKQEVQRQEVEEWVASGNKRPHLSVILVGENPAS  
HSYVLNKTRAAAVVGINSETIMKPASISSEELLNLINKLNDDNVDGLLVQLPLPEHIDERRICNAVSPDKDVDG  
FHVINVGRMCLDQYSMLPATPWGVWEIIKRTGIPTLGKNVVVAGRSKNVGMPIAMLLHTDGAHERPGGDATVTIS  
HRYTPKEQLKKHTILADIVISAAGIPNLITADMIKEGAVIDVGINRVHDPVTAKPKLVGDVDFEGVRQAGYIT  
PVPGGVGPMTVAMLMKNTIIAAKKVLRLEEREVLKSKELGVATN

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**FIGURE 154**

CTCCACCGCGGCGAGAGGCATGGGCACGTGGCTGCCGAGGGTGGCCGAGCTCTGGGAAGAAAAGCCCGTGTGCCT  
CTGCATAGCGTCGCTACAGCGCTGACTCGGTGTGGATTGATTGGAAAGGTTTGAGGGAGTACTTGGGAAGCATGG  
TGGCACATGATGAGACTGGAGGTCTCCTACCTATTAAGAGGACCATAACGAGTCCTAGATGTCAATAACAGTCCT  
TCAGAGAACAAGAGGAGCCAAGCAATAAAGAGTTCGACCTCTGGCTCGTGTACGTCCTTGGCAAATTTAATCT  
CTCCTGTAAGAAATGGAGCTGTGACAGCTTTTGGTCAAACAATACAGTCATTTACCCCTTCGTGGTGACCACAGAT  
CCCCAGCCTCTGCCCAGAAGTTTCTAGCAGGTCAACAGTCCCAACACCCGCCAAGAGAAGGAGCAGTGCAGTGT  
GGTCAGAGATGCTGGACATCACCATGAAGGAGTCTCTCACCACCAGGGAGATCAGACGGCAGGAGGCAATATATG  
AAATGTCCCGAGGTGAACAGGATTTAATTGAGGATCTCAAACCTTGCAAGAAAGGCCTACCATGACCCCATGTTAA  
AGTTGTCCATCATGTGAGAAGAGGAACTCACACATATATTTGGTGATCTGGACTCTTACATACCTCTGCATGAAG  
ATTTGTTGACAAGAATAGGAGAAGCAACCAAGCCTGATGGAACAGTGGAGCAGATTGGTCCATTTCTCGTGAGCT  
GGTTACCGCGCTTGAATGCCTACAGAGGTTACTGTAGTAACCAGCTGGCAGCCAAAGCTCTTCTTGATCAAAAGA  
AACAGGATCCAAGAGTCCAAGACTTCCCTCCAGCGATGTCTCGAGTCTCCCTTCAGTCGAAAACCTAGATCTTTGGA  
GTTTCTTAGATATCCCTCGAAGTCGCCTAGTCAAATACCCCTTTACTGTTAAAAAGAAATCTTAAACACACTCCAA  
AAGAGCACCCCTGATGTTTACGCTTCTGGAGGATGCTATATTGATAATACAGGGAGTCCCTCTCTGATATCAACTTGA  
AGAAAGGTGAATCCGAGTGCCAGTATTACATCGACAAGCTGGAGTACCTGGATGAAAAGCAGAGGGACCCAGAA  
TCGAAGCGAGCAAAGTGCTGCTGTGCCATGGGGAGCTGCGGAGCAAGAGTGGACATAAACTTTACATTTTCTGT  
TTCAAGACATCTTGGTTCTGACTCGGCCGTCACACGGAACGAACGGCACTCTTACCAGGTTTACCGGCAGCCAA  
TCCCAGTCCAAGAGCTAGTCTTAGAAGACCTGCAGGATGGAGATGTGAGAATGGGAGGCTCCTTTGAGGAGCTT  
TCAGTAACTCAGAGAAAGCTAAAAATATCTTTAGAATTGCTTCCATGACCCCTCTCCAGCCAGTCTCACACTC  
TGCAAGCCAATGACGTGTTCCACAAGCAGCAGTGGTTCAACTGTATTGAGCGGCCATTGCCCCCTTCCAGTCGG  
CAGGCAGTCCACCTGAGCTGCAGGGCCTGCCGGAGCTGCACGAAGAGTGTGAGGGGAACCAACCCCTCTGCGAGGA  
AACTCACAGCCCAGAGGAGGGCATCCACAGTTTCCAGTGTACTCAGGTAGAAGTTGATGAAAACGCTTACAGAT  
GTGGCTCTGGCATGCAGATGGCAGAGGACAGCAAGAGCTTAAAGACACACCAGACACAGCCCGGCATCCGAAGAG  
CGAGGGACAAAGCCCTTTCTGGTGGCAAACGGAAGAGACTTTGGTGTAGAGAAGGCTCTGTGTGTTAACTGATG  
GGAGAGACTGTTTGTATATAAATGTGTACAGTTTTGTTTTCTCGTAAGGGGAGCATCATAGGGTTACTTTATACC  
AGTTGTAACATTTTTCATTGTTTTTGGTTGTTCTTTTTTCTTTTTTTAATGGCAGCTAAAGATATACAGATTACTG  
TTAAATTGCAGTCCTTTTTTTTTTTTAAAGATAATTTCTTGAATTAATTTAGAACATGGTAAGCCTGGTATTTTTTA  
ATCAACAAAATATTTATGAAATGGGTTTTCTCTTAATCTGGATTATCATATGGCTTTCTAATACCAATTGTAAT  
ATTTACAATATTCACCAAACTTAGAATTTTGCAAATGCTGGAATTCGCCAGTGTTCCTTGCTAAGCCTTGCA  
TGCAAATTTGAAATTTAACATTGGCACCCAAAACCTACATGGAATGTATGTCTGGAGTATTTCAAACCTTTACA  
TTGAAACATAATTTCTTGAAAAACAAACCATAAGCCTGAGGAGGTTTTATCAACTGGAATGCTTTATATTAGT  
TTGTTTTTCACTGTACATTCCTCATTTTACATTCATTTAACCTGCCGATTATTTAATTTTTTTATTGTAAAGTAG  
TTTTTAGCATTTGCTTTTATTTTTTACTTTGATGCCTTTTCAAATTGGCATGTCTTTAAAGTATTTTTCTTCCT  
GATTAATAATGTGTGTGTATGTGTGTGTGTGTGTATATATATATATTTTTTTAAATCACATTAATTTTACCAA  
GTGAAACCAAGCCATACTGTTTTTGAGCCAATTAAGAAAATTGCCATTTTTAAAGTGTAGCATTTTACGGGTAAAG  
ACCCATGAAATGGCTTGATGTATTCTAGACTACTGAAAGAAAACCACTTCAAAGATTTTGTGAAAGTTTTAGTG  
TTGTCTGAAATGCAAGAGGGAAGGTGATTGGTAGTGAGTTAAAAGAAAAAGAGAGGAAAAGAGAGTAGTTTTGTC  
TTCAAGTAAAATGTCTGGTTGTGCCAGACATTTACAAGTGTGAAAGGAGATAGGAGAAGCTCAACTTGAGGGCG  
TGTAAGTGTAGAAAGGCTCGAGGGGACGTGGACTTATTTGCCTTGGTTTGCAATACCTGCAATAATGAGTT  
TGAAAAGAAACAATGAAATGTGTTAAAAATTTGACCATATTAGATAAATTTTGGTGGATTTAGTCATAAGATGGA  
AAAAGACTGGTGAATCTTTTATTACAAAATGTTTCTGTTAAATGGGATCATCATCTTTGAAAGGGGGGAGGAGG  
AGTAAAAGCCCGATTATAATGGTGATCAATTCAGTCAGTGTGACTATTCTGTGAAATATATTTGGCCAGTGGA  
AATGATAATCAGAAAAGACTGTAAATAGATCCATCCAATGATTTCTCTGTACAAATGAATGATACTATTAATAA  
AAAAAAAAA

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**FIGURE 155**

MVAHDETGGLLP IKRTIRVLDVNNQSFREQEEPSNKRVRPLARVTS LANLISPVRNGAVRRFGQTIQSFTLRGDH  
RSPASAQKFSSRSTVPTPAKRRSSALWSEMLDITMKESLTTREIRRQEAIYEMSRGEQDLIEDLKLARKAYHDP  
LKLSIMSEELTHIFGDLDSYIPLHEDLLTRIGEATKPDGTVEQIGHILVSWLPRLNAYRGYCSNQLAAKALDQ  
KKQDPRVQDFLQRCLESPFSRKLDLWSFLDIPRSRLVKYPLLLKEILKHTPKHEPDVQLLEDAILIIQGVLS  
DIN LKKGESECQYYIDKLEYLDEKQRPRIEASKVLLCHGELRSKSGHKLYIFLFQDILVLRPVTRNERHSYQVYRQ  
PIPVQELVLEDLQDGDVRMGGSF RGAF SNSEKAKNIFRIRFHDPSPAQSHTLQANDVFHKQQWFNCIRAAIAPFQ  
SAGSPPELQGLPELHEECEGNHPSARKLTAQRRASTVSSVTQVEVDENAYRCGSGMQMAEDSKSLKTHQTQPGIR  
RARDKALSGGKRKETLV

**FIGURE 156**

**FIGURE 156**

AGAGGGCTTCCCTGGCTGGTGCCTGAGCCCCGGCGTCCCTCGCCCCCGCCCTCCCCGCATCCCTCTCCTCCCTCGC  
GCCTGGCCCTGTGGCTCTTCTCCCTCCCTCCTTCCCCCCCCCCCCACCCCTCGCCCGCTGCCTCCCTCGGCCCA  
GCCAGCTGTGCCGGCGTTTGTGGCTGCCCTGCGCCCGGCCCTCCAGCCAGCCTTCTGCCGGCCCCGCCGCG**ATG**

GAGGTGCCCCAGCCGAGCCCGCGCCAGGCTCGGCTCTCAGTCCAGCAGGCGTGTGCGGTGGCGCCACGCTCCG  
 GGCCACCTCCCGGGCCTCCTGCTGGGATCTCATGGCCTCCTGGGGTCCCCGGTGCGGGCGGCCGCTTCCTCGCGC  
 GTCACCACCCTCACCCAGACCATGCACGACCTCGCCGGGCTCGGCAGCCGAGCCGCTGACGCACCTATCCCTG  
 TCTCGACGGGCATCCGAATCCTCCCTGTGCTCTGAATCCTCCGAATCTTCTGATGCAGGTCTCTGCATGGATTCC  
 CCCAGCCCTATGGACCCCCACATGGCGGAGCAGACGTTTGAACAGGCCATCCAGGCAGCCAGCCGGATCATTGCA  
 AACGAGCAGTTTGCCATCAGACGCTTCCAGTCTATGCCGGTGAGGCTGCTGGGCCACAGCCCCGTGCTTCGGAAC  
 ATCACCAACTCCCAGGCGCCCGACGGCCGGAGGAAGAGCGAGGCGGGCAGTGAGCTGCCAGCAGCTCTGGGGAA  
 GACAAGGAGAATGTGCGCTTCTGGAAGGCCGGGGTGGGAGCTCTCCGGGAAGAGGAGGGGGCATGCTGGGGTGGT  
 TCCCTGGCATGTGAGGACCCTCCTCTCCCATCTTGCTGTCAGGATGGATTGTCTTCAAGATGCCATGGAAGCCC  
 ACACATCCCAGCTCCACCCATGCTCTGGCAGAGTGGGCCAGCCGAGGGAAGCCTTTGCCAGAGACCCAGCTCG  
 GCCCCGACCTGATGTGTCTCAGTCCTGACCGGAAGATGGAAGTGAGGAGCTCAGCCCCCTGGCCCTAGGTGCG  
 TTCTCTCTGACCCCTGCAGAGGGGGATACTGAGGAAGATGATGGATTGTGGACATCCTAGAGAGTGACTTAAAG  
 GATGATGATGCAGTTCCCCCAGGCATGGAGAGTCTCATTAGTGCCCCACTGGTCAAGACCTTGAAAAGGAAGAG  
 GAAAAGGACCTCGTCATGTACAGCAAGTGCCAGCGGCTCTTCCGCTCTCCGTCCATGCCCTGCAGCGTGATCCGG  
 CCCATCCTCAAGAGGCTGGAGCGGGCCCCAGGACAGGGACACGCCCGTGCAGAATAAGCGGAGGCGGAGCGTGACC  
 CCTCCTGAGGAGCAGCAGGAGGCTGAGGAACCTAAAGCCCCGCTCCTCCGCTCAAATCACTGTGTACGATGAG  
 ATCGGAAACCTCCTGGACAGTGACCACCGAGAGCTGATTGGAGATTACTCTAAGGCCTTCCTCCTACAGACAGTA  
 GACGGAAAGCACCAAGACCTCAAGTACATCTCACCAGAAACGATGGTGGCCCTATTGACGGGCAAGTTCAGCAAC  
 ATCGTGGATAAGTTTGTGATTGTAGACTGCAGATACCCCCTATGAATATGAAGGCGGGCACATCAAGACTGCGGTG  
 AACTTGCCCCCTGGAACGCGACGCCGAGAGCTTCCTACTGAAGAGCCCCATCGCGCCCTGTAGCCTGGACAAGAGA  
 GTCATCCTCATTTTTCCACTGTGAATTCTCATCTGAGCGTGGGCCCCGCATGTGCCGTTTCATCAGGGAACGAGAC  
 CGTGCTGTCAACGACTACCCACAGCCTCTACTACCTGAGATGTATATCCTGAAAGGCGGCTACAAGGAGTTCTTC  
 CCTCAGCACCCGAACCTTCTGTGAACCCAGGACTACCGGCCCATGAACCACGAGGCCTTCAAGGATGAGCTAAAG  
 ACCTTCCGCCTCAAGACTCGCAGCTGGGCTGGGGAGCGGAGCCGGCGGGAGCTCTGTAGCCGGCTGCAGGACCAG  
**TGA**GGGGCCTGCGCCAGTCTCTGCTACCTCCCTTGCCCTTTCGAGGCCTGAAGCCAGCTGCCCTATGGGCCTGCCGG  
 GCTGAGGGCCTGCTGGAGGCCTCAGGTGCTGTCCATGGGAAAGATGGTGTGGTGTCTGCTGCTGCCCCAGCC  
 CAGATTCCCCTGTGTCTATCCCATCATTTTCCATATCCTGGTGCCCCCACCCTGGAAGAGCCCAGTCTGTTGAG  
 TTAGTTAAGTTGGGTTAATACCAGCTTAAAGGCAGTATTTTGTGTCTCCAGGAGCTTCTTGTTCCTTGTTAGG  
 GTTAACCCTTCATCTTCCTGTGTCTGAAACGCTCCTTTGTGTGTGTGTGAGCTGAGGCTGGGGAGAGCCGTGGT  
 CCCTGAGGATGGGTGAGAGCTAAACTCCTTCCTGGCCTGAGAGTCAGCTCTCTGCCCTGTGTACTTCCCGGGCCA  
 GGGCTGCCCTAATCTCTGTAGGAACCGTGGTATGTCTGCCATGTTGCCCTTTCTCTTTTCCCCTTTCCTGTCC  
 CACCATACGAGCACCTCCAGCCTGAACAGAAGCTCTTACTCTTTCCTATTTAGTGTTACCTGTGTGCTTGGTCT  
 GTTTGACTTTACGCCCATCTCAGGACACTTCCGTAGACTGTTTAGGTTCCCCTGTCAAATATCAGTTACCCACTC  
 GGTCCCAGTTTTGTTGCCCCAGAAAGGGATGTTATTATCCTTGGGGGCTCCCAGGGCAAGGGTTAAGGCCTGAAT  
 CATGAGCCTGCTGGAAGCCAGCCCCCTACTGCTGTGAACCTGGGGCCTGACTGCTCAGAACTTGCTGTCTGTCTT  
 GTTGGCGATGGATGGAAGGTTGGATGGATGGGTGGATGGCCGTGGATGGCCGTGGATGCGCAGTGCCTTGCATAC  
 CCAAACCAGGTGGGAGCGTTTTTGTGAGCATGACACCTGCAGCAGGAATATATGTGTGCCTATTTGTGTGGACAA  
 AAATATTTACACTTAGGGTTTTGGAGCTATTCAAGAGGAAATGTCACAGAAGCAGCTAAACCAAGGACTGAGCACC  
 CTCTGGATTCTGAATCTCAAGATGGGGGCAGGGCTGTGCTTGAAGGCCCTGCTGAGTCATCTGTTAGGGCCTTGG  
 TTCAATAAAGCACTGAGCAAGTTGAGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 157**

MEVPQPEPAPGSALSPAGVCGGAQRPGHLPGLLLGSHGLLGSPVRAAASSPVTTLTQTMHDLAGLGSRSRLTHLS  
LSRRASESSLSSSESSSDAGLCMDSPSPMDPHMAEQTFEQAIQAASRIIRNEQFAIRRFQSMPVRLLGHSPVLR  
NITNSQAPDGRRKSEAGSGAASSSGEDKENVRFWKAGVGALREEEGACWGGSLACEDPPLPSWLQDGFVFKMPWK  
PTHPSSSTHALAEWASRREAFQRPSSAPDLMCLSPDRKMEVEELSPLALGRFSLTPAEGDTEEDDGFVDILESDL  
KDDDAVPPGMESLISAPLVKILEKEEEKDLVMYSKCQRLFRSPSPMPCSVIRPILKRLERPQDRDTPVQNKRRRSV  
TPPEEQEAEFPKARVLRSKSLCHDEIENLLSDHRELIGDYSKAFLLQTVDGKHQDLKYISPETMVAALLTGKFS  
NIVDKFVIVDCRYPYEYEGGHIKTAVNLPLERDAESFLLKSPIAPCSLDKRVILIFHCEFSSERGPRMCRFIRER  
DRAVNDYPSLYYPEMYILKGGYKEFFPQHNPFCFPQDYRPMNHEAFKDELKTFRLKTRSWAGERSRRELCSRLQD  
Q



## FIGURE 158A

CTGCGGCCGCCTGGTTTCTTGCCCTTAAGGAGCCCCATTGCCTTTCCCGCTGAAGTCTAGATGTTGACATGTAATAA  
AGCGGGCAGCAGGATGGTGGTGGATGCGGCCAACTCCAATGGGCCTTTCCAGCCCGTGGTCCTTCTCCATATTCCG  
AGATGTTCTCCTGCTGATCAAGAGAAGCTTTTTATCCAGAAGTTACGTCAGTGTTGCGTCCTCTTTGACTTTGT  
TTCTGATCCACTAAGTGACCTAAAGTGGAAGGAAGTAAAACGAGCTGCTTTAAGTGAAATGGTAGAATATATCAC  
CCATAATCGGAATGTGATCACAGAGCCTATTTACCCAGAAGTAGTCCATATGTTTGCAGTTAACATGTTTCGAAC  
ATTACCACCTTCTCCTCAATCCTACGGGAGCGGAATTTGACCCGGAGGAAGATGAACCAACGTTAGAAGCAGCCTG  
GCCTCATCTACAGCTTGTTTATGAATTTTCTTAAGATTTTATAGAGTCTCCAGATTTCCAACCTAATATAGCGAA  
GAAATATATTGATCAGAAGTTTGTATTGCAGCTTTTAGAGCTCTTTGACAGTGAAGATCCTCGGGAGAGAGATTT  
TCTTAAACCACCTTTCACAGAATCTATGGGAAATTCCTAGGCTTGAGAGCTTACATCAGAAAAACAGATAAATAA  
TATATTTTATAGGTTTATTTATGAAACAGAGCATCATAATGGCATAGCAGAGTTACTGGAAATATTGGGAAGTAT  
AATTAATGGATTTGCCTTACCCTAAAAGAAGAGCACAAAGATTTTCTTATTGAAGGTGTTACTACCTTTGCACAA  
AGTGAAATCTCTGAGTGTCTACCATCCCCAGCTGGCATACTGTGTAGTGCAGTTTTTAGAAAAAGGACAGCACCTT  
CACGGAACCAAGTGGTGTGATGGCACTTCTCAAATACTGGCCAAAGACTCACAGTCCAAAAGAAGTAATGTTCTTAA  
CGAATTAGAAGAGATTTTAGATGTCATTGAACCATCAGAATTTGTGAAGATCATGGAACCCCTCTTCCGGCAGTT  
GGCCAAATGTGTCTCCAGCCACACTTCCAGGTGGCAGAGCGAGCTCTCTATTACTGGAATAATGAATACATCAT  
GAGTTTAATCAGTGACAACGCAGCGAAGATTCTGCCCATCATGTTTCTTCTTGTACCGCAACTCAAAGACCCA  
TTGGAACAAGACAATACATGGCTTGATATACAACGCCCTGAAGCTCTTCATGGAGATGAACCAAAGCTATTTGA  
TGACTGTACACAACAGTTCAAAGCAGAGAACTAAAAGAGAAGCTAAAAATGAAAGAACGGGAAGAAGCATGGGT  
TAAATAGAAAATCTAGCCAAAGCCAATCCCCAGTACACAGTGTATAGTCAAGCCAGCACCATGAGCATTCCGGT  
TGCAATGGAGACAGATGGGCCTTTATTTGAAGATGTGCAGATGCTGAGAAAGACAGTGAAGGACGAGGCTCATCA  
GGCACAGAAAGATCCGAAGAAGGACCGTCTCTTGCACTCCGCAAGTCCGAGCTGCCTCAGGACCCCCACACCAA  
GAAAGCCTTGGAAGCTCACTGCAGGGCCGATGAGCTGGCCTCCAGGACGGCCGCTAGCCTCCGGGGCGCCGCGT  
CGGGGCCGGGCCCGCCAGTTCTTTTCCGGATTCTGTAGAAAATACATACTTCTGTGCCATACCAATCAGTTACA  
CTCAAAGCTTTCTTGACCCCGTTCCGTAGGCAATAACGTGCGTCCGCTCAGCGCGAGATTAGGAGTTCAAACA  
ATGGTGACTTCCAGAGCCCGCTGGCAGAGCCGCGGGTTGACGACGGTGTCTCGCAGTGTGCGCGCCACCCAG  
CGTAGTCCAAGTCAGACTATTTCAAAAGTCAGAGCGATAGGAAAGCACCCCTGCCCTTCATCTTCATGTTCTCCC  
AAATGGAACCTTAGGATCTTTTAACATAGGTGGTTCTGTGATAACATCAGTGTTTTCCAAATCAAAGGAACGCTTT  
AAAAATAGGACCTATTTTTTAAGACTTTACAGCCTTTGAAATGGTTTCCACGTGATTGTTACGCCAGCAGTTCT  
TTTGTGTTTTTTCAATCTCAGTGAAATGGCTCTTTGCTTTTCGAGTTCTCACGCAACGTACTGGGCAAATGACAA  
TCCTCAGCCGCTGGTATTTTCTAAGGGGTCTCTTCACTTTGATGAGTGACATGAACACCGTGTCTCCTTCTCTTG  
TGTGTACCTAAAGCCATATTTCCAAGTCTGTGGTACTCCAGGATTCCAGGAGTAAGCCTGTAGAAGAGATTTATT  
TTAAAGAGATTGCTCTGAAATTTATCTTAAAGAGCTTGCTCTGTCTACCTTGACAGAAATGGAGTTTTAAAA  
TTATGTGTTAATATTTTTATTTGCAGATTTGCTTTCCGTCAACTTAAACATTGTTGCCCTTCAACAAGGCTCTTG  
AATTAATAAAATTATAGTCTCTAAGAATCCACATTTTATGGAAAGTTAGAGCAAAATCATTTTGAGTTAAGCCA  
GTTCTTAGCCTAATGCAAACTGCAGCGCCTTTAAGCATAAAGTAACACAACAGCATTGCACGGGGCCGGCACTGC  
CGCTGCCTTCACTGAAGGCTGCAGTGCTGTTCTGAGAGCTTGAGGAGGACACCAGCGAGGATGACGTTTAGTGGA  
GCTCTTTCTGTTGAAAAGAGCTCACGTTATCAACACCTTGTAAGGAAAATACAGTGTCTGAGTTTTCATCGGTCT  
TCACATGCTGCTATATATTCCACAGAGTTTCTTGATGTACTGAGCTTTTGTGTTTAGATGGAATAGCACAAGGAG  
AAAAATCTTTAACTTAGTGCTTTGTCTATTCTTTATTTCTCTCAGGGTGGCCAGTATTTGACTTATTTATCCT  
GCTTGAAAGCTACTTGAGATGTGTACTGCTATTCTAAACACGTGATCTAGTTTCTTTTCTCTGGCATAAGATT  
ATATAACTTAATGTTAAGTGTCTTGAGGCATAAAAGACAAAATGTGGCTTATTTTAGGATCTGTTTTTTCATCGA  
GGTCTCGGGTATCCTTTCAAAGATAGTGAGAAGCAGACACTGCTCCTTGTGCAGCTCTGGTACCTCCTGCCCACT  
GCTGTCACTTCAAGCCACTGGCAATGCTTCTGTCTCGTGTCTTGAGGAAAAATCACCTGGGGGGAGGGGACTTC  
TTGTGGTAAGAGCAAGTGCAGGTATGAAATGCGAAGATTGCCCCAGCTAAAAGTGGACAAGTCCGCTTTGTGAGA  
TGAATACTTCTGAGAACTTGACAAGTATCTCTCCATTTTACCATTATGAAACTATCATTAACAAAAACAGTT  
TAGATGCCTTCTCCTTTTGAGGGAAAAAGGGTGCTTTTTATTGTATAAAGCAGCGTCTATGTATTTTGATATAC  
CATGTTTGAACCTCCGTCTTTAGCTGATAGATTCTCAAATATCCTTGATTTTGGATGTTTCTAGTATGTTTGTGAG  
AGAGGTTTCTGGGAAGACTCTCTTTTGCCTCGGGAAAAAGCAAAATATCAATGTTTGGGTGACTGTGTAAAGC

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**FIGURE 158B**

TCAGTGTGTAAGAACATCTTTTTGTCTAGGTTTTCTTTCTGCTCTTTATTGAAGACAAACACTCACCAAAAAGAA  
AAATAAAAGTTTTTCAGAGAAACTAATTTTCTTTGGCAAGAGTATTACTTAATATTTTGGCCTCCTAAAGTTTCCC  
TAGTTAGTACTCGGACTCCTGTGCTAATTGTCAGCTTACATATCATTGTATAGAGACTGTTTATTCTGTACCAA  
CTGATTTCAAAGTACTACATTGAAAATAAACCGGTGACTGTTTTCTTCATAAAGTTCTGCGTTTGGCATCTTC  
ACTCTTTCCAAAATGTATCTGTACATCAGAAATGTCACTATTCCAAGTGTCTTTTAGTGTGGCCTTTAGTATGG  
CTTCCTTTTAATATTGTACATACATTGTATCTTTGTTTTATGGTAATAAGTAATAAAAAATGTAGACTTCAAAAA  
AAAAGCGGCCGCAG

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**FIGURE 159**

MVVDAAANSNGPFQPVVLLHIRDVPPADQEKLFIQKLRQCCVLFDFVSDPLSDLKWKEVKRAALSEMVEYITHNRN  
VITEPIYPEVVHMFVAVNMFRTLPPSSNPTGAEFDPEEDEPTLEAAWPHLQLVYEFFLRFLES PDFQPNIAKKYID  
QKFVLQELLEFDSEDPREDFLKTTLHRIYGKFLGLRAYIRKQINNIFYRFIYETEHNGIAELLEILGSIINGF  
ALPLKEEHKIFLLKVLLPLHKVKSLSVYHPQLAYCVVQFLEKDSTLTPVVMALLKYWPKTHSPKEVMFLNELEE  
ILDVIEPSEFVKIMEPLFRQLAKCVSSPHFQVAERALYYWNNEYIMSLISDNAAKILPIMFPSLYRNSKTHWNKT  
IHGLIYNALKLFMEMNQKLFDDCTQQFKAEKLEKLMKEREAEAWVKIENLAKANPQYTVYSQASTMSIPVAMET  
DGPLFEDVQMLRKT VKDEAHQAQKDPKKDRPLALRKSELPQDPHTKKALEAHCRADELASQDGR

## FIGURE 160

CCGGAGGAGTCCGAGAGGAAGCGGAGGCGCGAGCTGGAGGCGGCGGCTCCCGTCGGCCTCCGGCAGGACTGAGCG  
CTGGGAGGCCGGAAGGCGGGCGCGCACGGCGGAGAGGCGGGCGGGAGGCCGAGCATATTAATGAAAAGTGCCAT  
AAACTGAAAAACCAAACATGAGGGTAGCAGGTGCTGCAAAGTTGGTGGTAGCTGTGGCAGTGTTTTTACTGACAT  
TTTATGTTATTTCTCAAGTATTTGAAATAAAAAATGGATGCAAGTTTAGGAAATCTATTTGCAAGATCAGCATTGG  
ACACAGCTGCACGTTCTACAAAGCCTCCAGATATAAGTGTGGGATCTCAAAAGCTTGCCCTGAGAAGCATTTTG  
CTTTTAAAATGGCAAGTGGAGCAGCCAACGTGGTGGGACCCAAAATCTGCCTGGAAGATAATGTTTTAATGAGTG  
GTGTTAAGAATAATGTTGGAAGAGGGATCAATGTTGCCTTGGCAAATGGAAAAACAGGAGAAGTATTAGACACTA  
AATATTTTGACATGTGGGGAGGAGATGTGGCACCATTATTAGATTTCTGAAGGCCATACAAGATGGAACAATAG  
TTTTAATGGGAACATACGATGATGGAGCAACCAAACCTCAATGATGAGGCACGGCGGCTCATTGCTGATTGGGGA  
GCACATCTATTACTAATCTTGGTTTTAGAGACAACCTGGGTCTTCTGTGGTGGGAAGGGCATTAAAGACAAAAGCC  
CTTTTGAACAGCACATAAAGAACAATAAGGATACAAACAAATATGAAGGATGGCCTGAAGTTGTAGAAATGGAAG  
GATGCATCCCCCAGAAGCAAGACTAAATGGAATGTGGAGAGAATTGAAGAAAGCGCACTTTCACTCTTAATGGGA  
GAGCTATAAATGGCAGAGCTATGTGTAAATATTTTAAAGAGCATGCAGCCATCTTGGTGTGTGCATGAGTATTGTC  
TCTTTTGATATCAGGATTATTTATTGCTAACGTAAATAGATAGCATTGTAAATAATCATCACAAATGATCAAATCA  
CTGAACCATGTCTCCGCACATTTCCCTAAAAGTACAATGTTTAGACTGCTATGGTAATACATATTTTAAATTCTA  
AAAGCATACACAATGTGTAACCTGAATGGTTTGTGAAAAATATATTGATATATATACTAGTTGCTATGAAAATATC  
ATGGAATAATAGGGATTTTAGGGTGGATACTTTATTTTCTTTTATGTTTCTATATGTTGCGTTGTGATGACATTA  
TCTTTTAAATTAAAAAGAGATTTGGCTAGTTGTGTGTGTAATGTTACTTTACAGTCCGACTCTCCTGATGTACCT  
CTTTTCATGATCTTTTTCTTTCTTCCCTCCCAAGAACTGAGGAATGTTTAATATGAAAACATACATCGGATATGTGA  
AAAGCACAACAAAATTCTTAATGTACACAGTAAAAAAGTAAATATATAAATGTAGATGGCATTTAGGACCACAGC  
TTGCTGGATTTGTGTTAGCTATGGGAATAACTTGATTTTGTATAAGCTATTTAGAGTGAGGCTGGAGGTGGCAGC  
TTCACAGAACTGGAGAACCAGGCCAAGTCCCCCTCCCAACCTAATTAGGTCATTACAGGACAGCTAAGTCAGTATA  
TTTAGAGCAATACTAGCATACGTTTTTCTTAATTGTTATCAGCATTGACCAAGTGGTTTGGAGGAGGCATGCTT  
TAATATCACAATAATTTTGATTTGTAAACCAAGAAATTAATCCTGTGTTTATCTAACTTCATAATAGCAATTATT  
GCCCCAAGCTATAGTGGCATATTTACAAAAGTTCTTATTACTGGGCGGACTGATAACATTTAAAAAATAATTGTG  
TTTGACCCCAATGACTTTTATACCCAATTCTACATAAAAAATATAGAAGATCTATCTTTTTTTTGTACCTTCAGAT  
GTTCACTAAATAACTCAGTTTTTAAAGCAGAAGTTTTAGGGCATTAAATATATGTTGTGTATGAAGTATCTCAA  
CTGGAACATAAATTTAGTGATCAAACCTGCCATTACAGTGTAAGGCAGCACTTAAATTTGGAACCTAAAGTTTAG  
ATGCATTGTATAAAAAAACCTAAAAGCAGTATCTGTTATTTAGCTGTAAACCAAGTTGGAAGCTATTTCGGATAAT  
TTCTTAAATATTGATGAACCTTTGGAGTACTGTTTCTTCCCTTCAAACCTGAATGTAATTAATTCATGAATAAATGCA  
CCTTATATGTTTTAAACAATCTTTGTATACTTTTGGGATTTTTGGTGCTTATATGCTAAATCACATTCAGCATGTG  
TATTTTGACATTTAAAATACTTCCCTCAATTCTGTAAATTAAAAGAATAGTTATTTTACAGTTCCAGGGATTGTG  
AAATAAATGTTGCAGTTTTTTAAAATAATGAAAATAAATACTCTTGGTTTTGCTTTGTGAAAAAAAAAAAAAAAAA

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**FIGURE 161**

MRVAGAAKLVVAVAVFLLTFYVISQVFEIKMDASLGNLFARSALDTAARSTKPPRYKCGISKACPEKHFAFKMAS  
GAANVVGPKICLEDNVLMMSGVKNNVGRGINVALANGKTGEVLDTKYFDMWGGDVAPFIEFLKAIQDGTIVLMGTY  
DDGATKLNDEARRLIADLGSTSIITNLGFRDNWVFCGGKGIKTKSPFEQHIKNNKDTNKYEGWPEVVEMEGCIPQK  
QD

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**FIGURE 162**

CCCAGGCGCAGCCAATGGGAAGGGTCGGAGGCATGGCACAGCCAATGGGAAGGGCCGGGGCACCAAAGCCAATGG  
GAAGGGCCGGGAGCGCGCGCGGGAGATTTAAAGGCTGCTGGAGTGAGGGGTGCCCCGTGCACCTGTCCAG  
CCGTCTGTCTGGCTGCTCGCTCTGCTTCGCTGCGCCTCCACTATGCTCTCCCTCCGTGTCCCGCTCGCGCCCA  
TCACGGACCCGCAGCAGCTGCAGCTCTCGCCGCTGAAGGGGCTCAGCTTGGTCGACAAGGAGAACACGCCGCCGG  
CCCTGAGCGGGACCCGCGTCTGGCCAGCAAGACCGCGAGGAGGATCTTCCAGGAGCCCACGGAGCCGAAAACCTA  
AAGCAGCTGCCCCGGCGTGGAGGATGAGCCGCTGCTGAGAGAAAACCCCGCCGCTTTGTCTCTTCCCATCG  
AGTACCATGATATCTGGCAGATGTATAAGAAGGCAGAGGCTTCCTTTTGGACCGCCGAGGAGGTTGACCTCTCCA  
AGGACATTTCAGCACTGGGAATCCCTGAAACCCGAGGAGAGATATTTTATATCCCATGTTCTGGCTTTCTTTGCAG  
CAAGCGATGGCATAGTAAATGAAAACCTTGGTGGAGCGATTTAGCCAAGAAGTTCAGATTACAGAAGCCCGCTGTT  
TCTATGGCTTCCAAATTGCCATGGAAAACATACATTCTGAAATGTATAGTCTTCTTATTGACACTTACATAAAAG  
ATCCCAAAGAAAGGGAATTTCTCTTCAATGCCATTGAAACGATGCCTTGTGTCAAGAAGAAGGCAGACTGGGCCT  
TGCGCTGGATTGGGGACAAAGAGGCTACCTATGGTGAACGTTGTGTAGCCTTTGCTGCAGTGGAAGGCATTTTCT  
TTTCCGGTTCTTTTGCCTCGATATTCTGGCTCAAGAAACGAGGACTGATGCCTGGCCTCACATTTTCTAATGAAC  
TTATTAGCAGAGATGAGGGTTTACACTGTGATTTTGTCTGCCTGATGTTCAAACACCTGGTACACAAACCATCGG  
AGGAGAGAGTAAGAGAAATAATTATCAATGCTGTTCCGATAGAACAGGAGTTCCTCACTGAGGCCTTGCTGTGA  
AGCTCATTGGGATGAATTGCACTCTAATGAAGCAATACATTGAGTTTGTGGCAGACAGACTTATGCTGGAAGTGG  
GTTTTAGCAAGGTTTTTCAGAGTAGAGAACCCATTTGACTTTATGGAGAATATTTCACTGGAAGGAAAGACTAACT  
TCTTTGAGAAGAGAGTAGGCGAGTATCAGAGGATGGGAGTGTGCAAGTCCAACAGAGAATCTTTTACCTTGG  
ATGCTGACTTCTAAATGAACTGAAGATGTGCCCTTACTTGGCTGATTTTTTTTTTCCATCTCATAAGAAAATCA  
GCTGAAGTGTTACCAACTAGCCACACCATGAATTGTCCGTAATGTTTCAATTAACAGCATCTTTAAACTGTGTAGC  
TACCTCACAACCAGTCTGTCTGTTTATAGTGTGGTAGTATCACCTTTTGCCAGAAGGCCTGGCTGGCTGTGAC  
TTACCATAGCAGTGACAATGGCAGTCTTGGCTTTAAAGTGAGGGGTGACCCTTTAGTGAGCTTAGCACAGCGGGA  
TTAAACAGTCTTTTAAACCAGCACAGCCAGTTAAAGATGCAGCCTCACTGCTTCAACGCAGATTTTAAATGTTTAC  
TTAAATATAAACCTGGCACTTTACAAACAAATAAACATTGTTTTGTACTCACGGCGGCGATAATAGCTTGATTTA  
TTTGGTTTTCTACACCAAATACATTCTCTGACCACTAATGGGAGCCAATTCACAATTCATAAGTGACTAAAGTA  
AGTTAAACTTGTGTAGACTAAGCATGTAATTTTTTAAGTTTTATTTTAAATGAATTAATAATTTTGTAAACCAACTT  
TAAAGTCAGTCTGTGTATACCTAGATATTAGTCAGTTGGTGCCAGATAGAAGACAGGTTGTGTTTTATCCTGT  
GGCTTGTGTAGTGTCTGGGATTCTCTGCCCCCTCTGAGTAGAGTGTTGTGGGATAAAGGAATCTCTCAGGGCAA  
GGAGCTTCTTAAGTTAAATCACTAGAAATTTAGGGGTGATCTGGGCCTTCATATGTGTGAGAAGCCGTTTCATTT  
TATTTCTCACTGTATTTTCTCAACGTCTGGTTGATGAGAAAAATTCCTGAAGAGTTTTCATATGTGGGAGCTA  
AGGTAGTATTGTAAATTTCAAGTCATCCTTAAACAAAATGATCCACCTAAGATCTTGCCCCGTGTTAAGTGGTGA  
AATCAACTAGAGGTGGTTCTTACAAGTTGTTTCAATCTAGTTTTGTTTGGTGTAAAGTAGGTTGTGTGAGTTAATTC  
ATTTATATTTACTATGTCTGTAAATCAGAAATTTTTTATTATCTATGTTCTTCTAGATTTTACCTGTAGTTCAT  
ACTTCAGTCACCCAGTGTCTTATTCTGGCATTGTCTAAATCTGAGCATTGTCTAGGGGGATCTTAACTTTAGTA  
GGAAACCATGAGCTGTTAATACAGTTTCCATTCAAATATTAATTTCAGAATGAAACATAATTTTTTTTTTTTTT  
TGAGATGGAGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTGGCGGATTTTGGCTCACTGTAACTCCATCTCC  
TGGGTTCAAGCAATTCTCCTGTCTCAGCCTCCCTAGTAGCTGGGACTGCAGGTATGTGCTACCACACCTGGCTAA  
TTTTTGATTTTTTAGTAGAGATGGAGTTTACCATATTGGTCAGGCTGGTCTTGAACCTCTGACCTCAGGTGATC  
CACCCACCTCGGCCTCCCAAAGTGCTGGGGATTGCAGGCGTGATAAACAAATATTCTTAATAGGGCTACTTTGAA  
TTAATCTGCCTTTATGTTTGGGAGAAGAAAGCTGAGACATTGCATGAAAGATGATGAGAGATAAATGTTGATCTT  
TTGGCCCCATTTGTTAATTGTATTTCAGTATTTGAACGTCGTCTGTTTATTGTTAGTTTTCTTCATCATTTATTG  
TATAGACAAATTTTTAAATCTCTGTAATATGATACATTTTCTATCTTTTAAAGTTATTGTTACCTAAAGTTAATCC  
AGATTATATGGTCCTTATATGTGTACAACATTAATAATGAAAGGCTTTGTCTTGCAATTGTGAGGTACAGGCGGAAG  
TTGGAATCAGTTTTAGGATTCTGTCTCTCATTAGCTGAATAATGTGAGGATTAACCTCTGCCAGCTCAGACCAT  
TTCCTAATCAGTTGAAAGGGAACAAGTATTTCACTCTCAAATTTGAATAATGCACAAGTCTTAAGTGATTAAAA  
TAAACTGTTCTTATGTC

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**FIGURE 163**

MLSLRVPLAPITDPQQQLSPLKGLSLVDKENTPPALSGTRVLASKTARRIFQEPTPKTKAAAPGVEDEPLLRE  
NPRRFVIFPIEYHDIWQMYKKAESFWTAEVDLSKDIQHWESLKPEERYFISHVLAFFAASDGIVNENLVERFS  
QEVQITEARCFYGFQIAMENIHSEMYSLIDITYIKDPKEREFLFNAIETMPCVKKKADWALRWIGDKEATYGERV  
VAFAAVEGIFFSGSFASIFWLKKRGLMPGLTFSNELISRDEGLHCDFACLMFKHLVHKPSEERVREIIINAVRIE  
QEFLTEALPVKLIGMNCTLMKQYIEFVADRLMLELGF SKVFRVENPFDFMENISLEGKTNFFEKRVGEYQRMGVM  
SSPTENSFTLDADF

**FIGURE 164**

GAATTCGGGCGGTCTCGGAGACACGCGGCGGTGTCCTGTGTTGGCC**ATG**GCCGACTACCTGATTAGTGGGGGCA  
CGTCCTACGTGCCAGACGACGGACTCACAGCACAGCAGCTCTTCAACTGCGGAGACGGCCTCACCTACAATGACT  
TTCTCATTCTCCCTGGGTACATCGACTTCACTGCAGACCAGGTGGACCTGACTTCTGCTCTGACCAAGAAAATCA  
CTCTTAAGACCCCACTGGTTTCCTCTCCCATGGACACAGTCACAGAGGCTGGGATGGCCATAGCAATGGCGCTTA  
CAGGCGGTATTGGCTTCATCCACCACAACCTGTACACCTGAATTCCAGGCCAATGAAGTTCGGAAAGTGAAGAAAT  
ATGAACAGGGATTTCATCACAGACCCTGTGGTCCTCAGCCCCAAGGATCGCGTGCGGGATGTTTTTGAGGCCAAGG  
CCCGGCATGGTTTCTGCGGTATCCCAATCACAGACACAGGCCGGATGGGGAGCCGCTTGGTGGGCATCATCTCCT  
CCAGGGACATTGATTTTCTCAAAGAGGAGGAACATGACTGTTTTCTTGGAAGAGATAATGACAAAGAGGGGAAGACT  
TGGTGGTAGCCCCCGCAGCATCACACTGAAGGAGGCAAATGAAATTCTGCAGCGCAGCAAGAAGGGAAAGTTGC  
CCATTGTAAATGAAGATGATGAGCTTGTGGCCATCATTGCCCGGACAGACCTGAAGAAGAATCGGGACTACCCAC  
TAGCCTCCAAAGATGCCAAGAAACAGCTGCTGTGTGGGGCAGCCATTGGCACTCATGAGGATGACAAGTATAGGC  
TGGACTTGCTCGCCAGGCTGGTGTGGATGTAGTGGTTTTGGACTCTTCCCAGGGAAATTCATCTTCCAGATCA  
ATATGATCAAGTACATCAAAGACAAATACCCTAATCTCCAAGTCATTGGAGGCAATGTGGTCACTGCTGCCCAGG  
CCAAGAACCTCATTGATGCAGGTGTGGATGCCCTGCGGGTGGGCATGGGAAGTGGCTCCATCTGCATTACGCAGG  
AAGTGCTGGCCTGTGGGCGGCCCAAGCAACAGCAGTGTACAAGGTGTCAGAGTATGCACGGCGCTTTGGTGTTT  
CGGTCAATTGCTGATGGAGGAATCCAAAATGTGGGTCATATTGCGAAAGCCTTGGCCCTTGGGGCCTCCACAGTCA  
TGATGGGCTCTCTCCTGGCTGCCACCACTGAGGCCCTGGTGAATACTTCTTTTCCGATGGGATCCGGCTAAAGA  
AATATCGCGGTATGGGTTCTCTCGATGCCATGGACAAGCACCTCAGCAGCCAGAACAGATATTTCAAGTGAAGCTG  
ACAAAATCAAAGTGGCCCAGGGAGTGTCTGGTGCTGTGCAGGACAAAGGGTCAATCCACAAATTTGTCCCTTACC  
TGATTGCTGGCATCCAACACTCATGCCAGGACATTGGTGCCAAGAGCTTGACCCAAGTCCGAGCCATGATGTACT  
CTGGGGAGCTTAAGTTTGAGAAGAGAACGTCCTCAGCCCAGGTGGAAGGTGGCGTCCATAGCCTCCATTTCGTATG  
AGAAGCGGCTTTTCT**TGAAA**AGGGATCCAGCACACCTCCTCGGTTTTTTTTTCAATAAAAAGTTTAGAAAGACCCGA  
ATTG



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**FIGURE 165**

MADYLISGGTSYVPDDGLTAQQLFNCGDGLTYNDFLILPGYIDFTADQVDLTSALTKKITLKTPLVSSPMDTVTE  
AGMAIAMALTGGIGFIHHNCTPEFQANEVRKVKKYEQGFITDPVVLSPKDRVRDVFEAKARHGFCGIPITDTGRM  
GSRLVGISSRDIDFLKEEEHDCFLEEIMTKREDLVVAPRSITLKEANEILQRSKKGKLPVNEDELVAIIART  
DLKKNRDYPLASKDAKKQLLCGAAIGTHEDDKYRLDLLAQAGVDVVLDSSQGNSIFQINMIKYIKDKYPNLQVI  
GGNVVTAQAKNLIDAGVDALRVGMGSGSICITQEV LACGRPQATAVYKVSEYARRFGVPVIADGGIQNVGHI AK  
ALALGASTVMMGSLLAATTEAPGEYFFSDGIRLKKYRGMGSLDAMDKHLSSQNR YFSEADKIKVAQGVSGAVQDK  
GSIHKFVPYLIAGIQHSCQDIGAKSLTQVRAMMYSGELKF EKRTSSAQVEGGVHSLHSYEKRLF

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**FIGURE 166**

AGAGCGATCATGTCGCACAAACAAATTTACTATTTCGGACAAATACGACGACGAGGAGTTTGAGTATCGACATGTC  
ATGCTGCCCCAAGGACATAGCCAAGCTGGTCCCTAAAACCCATCTGATGTCTGAATCTGAATGGAGGAATCTTGGC  
GTTTCAGCAGAGTCAGGGATGGGTCCATTATATGATCCATGAACCAGAACCTCACATCTTGCTGTTCCGGCGCCCA  
CTACCCAAGAAACCAAAGAAATTGAAGCTGGCAAGCTACTTTTCAGCCTCAAGCTTTACACAGCTGTCCTTACTTC  
CTAACATCTTTCTGATAACATTATTATGTTGCCTTCTTGTTTCTCACTTTGATATTTAAAAGATGTTCAATACAC  
TGTTTGAATGTGCTGGTAACTGCTTTGCTTCTTGAGTAGAGCCACCACCACCATAGCCCAGCCAGATGAGTGCTC  
TGTTGGACCCACAGCCTAAGCTGAGTGTGACCCCAAGCCACGATGTGCTCTGTATCCAGAACACACTTGGCAGA  
TGGAGGAAGCATCTGAGTTTGAGACCATGGCTGTTACAGGGATCATGTAACTTGCTGTTTTTGTGTTTTCTGCC  
GGGTGTTGTATGTGTGGTGACTTGCGGATTTATGTTTCAGTGTACTGGAACTTTCCATTTTATTCAAGAAATCT  
GTTTCATGTTAAAAGCCTTGATTAAAGAGGAAGTTTTTATAAT

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**FIGURE 167**

MSHKQIYYSDKYDDEEFYRHVMLPKDIAKLVPKTHLMSESEWRNLGVQQSQGWVHYMIHEPEPHILLFRRPLPK  
KPKK

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**FIGURE 168**

GCGGCGCTCGCGCCAAGGGACGTGTTTCTGCGCTCGCGTGGTC**ATG**GAGGCGCTGCCGCTGCTAGCCGCGACAAC  
TCCGGACCACGGCCGCCACCGAAGGCTGCTTCTGCTGCCGCTACTGCTGTTCTGCTGCCGGCTGGAGCTGTGCA  
GGGCTGGGAGACAGAGGAGAGGCCCCGGAAGGAGTGCCTTCTACGCGGGTGGACAAGTGTACCC  
GGGAGAGGCATCCCGGGTATCGGTCGCCGACCACTCCCTGCACCTAAGCAAAGCGAAGATTCCAAGCCAGCGCC  
CTACTGGGAAGGAACAGCTGTGATCGATGGAGAATTTAAGGAGCTGAAGTTAACTGATTATCGTGGGAAATACTT  
GGTTTTCTTCTTCTACCCACTTGATTTACATTTGTGTGTCCAAGTAACTGATTATCGCTTTTGGCGACAGACTGA  
AGAATTCAGATCTATAAATACTGAAGTGGTAGCATGCTCTGTTGATTCACAGTTTACCCATTTGGCCTGGATTAA  
TACCCCTCGAAGACAAGGAGGACTTGGGCCAATAAGGATTCCACTTCTTTCAGATTGACCCATCAGATCTCAAA  
GGACTATGGTGTATACCTAGAGGACTCAGGCCACACTCTTAGAGGTCTCTTCATTATTGATGACAAAGGAATCCT  
AAGACAAATTACTCTGAATGATCTTCCTGTGGGTAGATCAGTGGATGAGACACTACGTTTGGTTCAAGCATTCCA  
GTACACTGACAAACACGGAGAAGTCTGCCCTGCTGGCTGGAAACCTGGTAGTGAAACAATAATCCCAGATCCAGC  
TGAAAGCTGAAGTATTTGATAAACTGAAT**TG**AGAAATACTTCTTCAAGTTATGATGCTTGAAAGTTCTCAATA  
AAGTTCACGGTTTTCATTACCA

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**FIGURE 169**

MEALPLLAATTPDHGRHRRLLLLPLLLFLLPAGAVQGWETEERPRTREEECHFYAGGQVYPGEASRVSVADHSLH  
LSKAKISKAPYWEGTAVIDGEFKELKLTDIRGKYLVFFFYPLDFTFVCPTETIIAFGDRLEEFRSINTEVVACSV  
DSQFTHLAWINTPRRQGGGLGPIRIPLLSDLTHQISKDYGVYLED SGHTLRGLFIIDDKGILRQITLNDLPVGRSV  
DETLRLVQAFQYTDKHGEVCPAGWKPGSETIIPDPAGKLKYFDKLN

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**FIGURE 170**

GGAAAAAGCGACTTGTGGCGGTCGAGCGTGGCGCAGGCGAATCCTCGGCACTAAGCAAAT**ATG**GACCTCGCGGC  
GGCAGCGGAGCCGGGCGCCGGCAGCCAGCACCTGGAGGTCCGCGACGAGGTGGCCGAGAAGTGCCAGAACTGTT  
CCTGGACTTCTTGGAGGAGTTTCAGAGCAGCGATGGAGAAATTAATACTTGCAATTAGCAGAGGAAGTATTG  
TCCTGAGAGAAACACATTGGTTGTGAGTTTTGTGGACCTGGAACAATTAACCAGCAACTTCCACCACCATTCA  
AGAGGAGTTCTATAGAGTTTACCCTTACCTGTGTGCGGCCTTGAAAACATTCGTCAAAGACCGTAAAGAGATCCC  
TCTTGCCAAGGATTTTTATGTTGCATTCCAAGACCTGCCTACCAGACACAAGATTCGAGAGCTCACCTCATCCAG  
AATTGGTTTGTCTCACTCGCATCAGTGGGCAGGTGGTGCAGGACTCACCCAGTTCACCCAGAGCTTGTGAGCGGAAC  
TTTTCTGTGCTTGGACTGTCAGACAGTGATCAGGGATGTAGAACAGCAGTTCAAATACACACAGCCAAACATCTG  
CCGAAATCCAGTTTGTGCCAACAGGAGGAGATTCTTACTGGATACAAATAAATCAAGATTTGTTGATTTTCAAAA  
GGTTCGTATTCAAGAGACCCAAAGCTGAGCTTCTCGAGGGAGTATCCCCCGCAGTTTAGAAGTAATTTAAGGGC  
TGAAGCTGTGGAATCAGCTCAAGCTGGTGACAAGTGTGACTTTACAGGGACACTGATTGTTGTGCCTGACGTCTC  
CAAGCTTAGCACACCAGGAGCACGTGCAGAACTAATTCCCGTGTGCTGAGTGGTGTGATGGATATGAGACAGAAGG  
CATTGAGGACTCCGGGCCCTTGGTGTAGGGACCTTCTTATAGGCTGGTCTTCTTGCCCTGCTGTGTTGCGCC  
AACCAACCCAAGTTTGGGGGAAAGAGCTCAGAGATGAGGAACAGACAGCTGAGAGCATTAGAACCAAATGAC  
TGTGAAAGAATGGGAGAAAGTGTGTGAGATGAGTCAAGATAAAAATCTATACCACAATCTTGTACCAGCCTGTT  
CCCTACTATACATGGCAATGATGAAGTAAACGGGGTGTCTGCTGATGCTCTTGGTGGCGTTCCAAAGACAAC  
AGGAGAAGGGACCTCTCTCGAGGGGACATAAATGTTTGATTGTTGGTGACCAAGTACAGCTAAGAGCCAATT  
TCTCAAGCACGTGGAGGAGTTCAGCCCCAGAGCTGTCTACACCAGTGGTAAAGCGTCCAGTGCTGCTGGCTTAAC  
AGCAGCTGTTGTGAGAGATGAAGAATCTCATGAGTTTGTGATTGAGGCTGGAGCTTTGATGTTGGCTGATAATGG  
TGTGTGTTGTATTGATGAATTTGATAAGATGGACGTGCGGGATCAAGTTGCTATTTCATGAAGCTATGGAACAGCA  
GACCATATCCATCACTAAAGCAGGAGTGAAGGCTACTCTGAACGCCCGGACGTCCATTTTGGCAGCAGCAAACCC  
AATCAGTGACACTATGACAGATCAAATCATTTGAAACAGAATATAAATTTGTCAGTCCCATCATGTCCCGATT  
CGATCTCTTCTTTATCCTTGTGGATGAATGTAATGAGGTTACAGATTATGCCATTGCCAGGCGCATAGTAGATTT  
GCATTCAAGAATTGAGGAATCAATTGATCGTGTCTATTCCCTCGATGATATCAGAAGATATCTTCTCTTTGCAAG  
ACAGTTTAAACCCAAGATTTCCAAAGAGTCAGAGGACTTCATTGTGGAGCAATATAAACATCTCCGCCAGAGAGA  
TGTTTCTGGAGTGACCAAGTCTTCATGGAGGATTACAGTGCGACAGCTTGAGAGCATGATTGCTCTCTCTGAAGC  
TATGGCTCGGATGCACTGCTGTGATGAGGTCCAACCTAAACATGTGAAGGAAGCTTTCCGGTTACTGAATAAATC  
AATCATCCGTGTGGAACACCTGATGTCAATCTAGATCAAGAGGAAGAGATCCAGATGGAGGTAGATGAGGGTGC  
TGGTGGCATCAATGGTCATGCTGACAGCCCTGCTCCTGTGAACGGGATCAATGGCTACAATGAAGACATAAATCA  
AGAGTCTGCTCCCAAAGCCTCCTTAAGGCTGGGCTTCTCTGAGTACTGCCGAATCTCTAACCTTATTGTGCTTCA  
CCTCAGAAAGGTGGAAGAAGAAGAGGACGAGTCAGCATTAAAGAGGAGCGAGCTTGTTAACTGGTACTTGAAGGA  
AATCGAATCAGAGATAGACTCTGAAGAAGAACTTATAAATAAAAAAAGAATCATAGAGAAAGTTATTTCATCGACT  
CACACACTATGATCATGTTCTAATTGAGCTCACCCAGGCTGGATTGAAAGGCTCCACAGAGGGAAGTGAGAGCTA  
TGAAGAAGATCCCTACTTGGTAGTTAACCTAACTACTTGTCTGAAGAT**TGAG**ATAGTGAAAGTAACTGACCAGA  
GCTGAGGAAGTGTGGCACAGCACCTCGTGGCCTGGAGCCTGGCTGGAGCTCTGCTAGGGACAGAAGTGTCTTCTGG  
AAGTGATGCTTCCAGGATTTGTTTTAGAAACAAGAATTGAGTTGATGGTCTATGTGTCACATTTCATCAGGT  
TTCATACCAACACAGGCTTCAGCACTTCTTTGGTGTGTTTCTGTCCCAGTGAAGTTGGAACCAAATAATGTGT  
AGTCTCTATAACCAATACCTTTGTTTTCATGTGTAAGAAAAGGCCCATTAATTTAAGGTATGTGCTGTCTTATT  
GAGCAAATAACTTTTTTTCAATTGCCAGCTACTGCTTTTATTTCATCAAAATAAAATAACTTGTCTG

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**FIGURE 171**

MDLAAAEPGAGSQHLEVRDEVAEKCQKLFLDFLEEFQSSDGEIKYLQLAEELIRPERNTLVVSFVDLEQFNQQL  
STTIQEEFYRVYPYLCRAKTFVKDRKEIPLAKDFYVAFQDLPTRHKIRELTSSRIGLLTRISGQVVRTHPVHPE  
LVSGTFLCLDCQTVIRDVEQQFKYTQPNICRNPVCANRRRFLDTNKS RFVDFQKVRIQETQAELPRGSIPRSLE  
VILRAEAVESAQAGDKCDFGTGLIVVPDVSKLSTPGARAETNSRVSGVDGYETEGIRGLRALGVRDLSYRLVFLA  
CCVAPTNPFRFGGKELRDEEQTAESIKNQMTVKEWEKVFEMSQDKNLYHNLCTSLFPTIHGNDEVKRGVLLMLFGG  
VPKTTGEGTSLRGDINVCIVGDPSTAKSQFLKHVEEFSRAVYTSGKASSAAGLTA AVRDEESHEFVIEAGALM  
LADNGVCCIDEFDKMDVRDQVAIHEAMEQQTISITKAGVKATLNARTSILAAANPISGHYDRSKSLKQNINLSAP  
IMSRFDLFFILVDECNEVTDYAIARRIVDLHSRIEESIDRVYSLDDIRRYLLFARQFKPKISKESEDFIVEQYKH  
LRQRDGSGVTKSSWRITVRQLESMIRLSEAMARMHCCDEVQPKHVKEAFRLLNKSIIRVETPDVNL DQEEEIOME  
VDEGAGGINGHADSPAPVNGINGYNEDINQESAPKASRLRGFSEYCRISNLIVLHLRKVEEEEDESALKRSELVN  
WYLKEIESEIDSEEELINKKRIIEKVIHRLTHYDHVLIELTQAGLKGSTEGSESYEEDPYLVVNPNYLLED

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**FIGURE 172**

CTGGTCCCGAGCACGAGCTGTGAGGGGATTCACTTGTGTGCGGAACCTCCTCGGAACCATGGCGTCCCTTTCCCTT  
GCACCTGTTAACATCTTTAAGGCAGGAGCTGATGAAGAGAGAGCAGAGACAGCTCGTCTGACTTCTTTTATTGGT  
GCCATCGCCATTGGAGACTTGGTAAAGAGCACCTTGGGACCCAAAGGCATGGACAAAATTCTTCTAAGCAGTGGA  
CGAGATGCCTCTCTTATGGTAACCAATGATGGTGCCACTATTCTAAAAAACATTGGTGTTGACAATCCAGCAGCT  
AAAGTTTTAGTTGATATGTCAAGGGTTCAAGATGATGAAGTTGGTGATGGCACTACCTCTGTTACCGTTTTAGCA  
GCAGAATTATTAAGGGAAGCAGAATCTTTAATTGCAAAAAAGATTTCATCCACAGACCATCATAGCGGGTTGGAGA  
GAAGCCACGAAGGCTGCAAGAGAGGCGCTGTTGAGTTCTGCAGTTGATCATGGTTCCGATGAAGTTAAATTCCGT  
CAAGATTTAATGAATATTGCGGGCACAACATTATCCTCAAACTTCTTACTCATCACAAAGACCACTTTACAAAG  
TTAGCTGTAGAAGCAGTTCTCAGACTGAAAGGCTCTGGCAACCTGGAGGCAATTTCATATTATCAAGAAGCTAGGA  
GGAAGTTTGGCAGATTCCATTTAGATGAAGGCTTCTGTGGATAAAAAAATTGGAGTAAATCAACCAAAACGA  
ATTGAAAATGCTAAAATTCTTATTGCAAATACTGGTATGGATACAGACAAAATAAAGATATTTGGTTCCCGGGTA  
AGAGTTGACTCTACAGCAAAGGTTGCAGAAATAGAACATGCGGAAAAGGAAAAAATGAAGGAGAAAGTTGAACGT  
ATTCTTAAGCATGGAATAAATTGCTTTATTAACAGGCAATTAATTTATAATTATCCTGAACAGCTCTTTGGTGCT  
GCTGGTGTCATGGCTATTGAGCATGCAGATTTTGCAGGTGTGGAACGCCTAGCTCTTGTACAGGTGGTGAAATT  
GCCTCTACCTTTGATCACCCAGAACTGGTGAAGCTTGGAAAGTTGCAAACTTATCGAGGAAGTCATGATTGGAGAA  
GACAACTCATTCACTTTTCTGGGGTTGCCCTTGGTGAGGCTTGTACCATTGTTTTGCGTGGTGCCACTCAACAA  
ATTTTAGATGAAGCAGAAAGATCATTGCATGATGCTCTTTGTGTTCTTGCGCAAAGTGAAGGACTCTAGAACA  
GTTTATGGAGGAGGCTGTTCTGAGATGTTGATGGCTCATGCTGTGACACAGCTTGCCAATAGAACACCAGGCAAA  
GAAGCTGTTGCAATGGAGTCTTATGCTAAAGCACTGAGAATGTTGCCAACCATCATAGCTGACAATGCAGGCTAT  
GACAGTGCAGACCTGGTGGCACAGCTCAGGGCTGCTCACAGTGAAGGCAATACCACTGCTGGATTGGATATGAGG  
GAAGGCACCATTTGGAGATATGGCTATCCTGGGTATAACAGAAAGTTTTCAAGTGAAGCGACAGGTTCTTCTGAGT  
GCAGCTGAAGCAGCAGAGGTGATTCTGCGTGTGGACAACATCATCAAAGCGGCACCCAGGAAACGTGTCCCTGAT  
CACCACCCCTGTTAAGCATTCCACGCTGCTGTCGATCTTTGGACCAGTTTCTAGCAAAGTTGTGTTTGAAAGATA  
CTCTATTAAAGAAGACTGTGGAATCTGTTTATCGGTGCCATTATATCCTTAAGTTTGGATATTTAGCTGACCTT  
CGCTTTAACATAGGTCTAATTTATTTGCCGTGTCATTTTCCATACAAATCAGTTGATTAAAGGAGTTCATTTCG  
CATACTGGGCATTAAAAATAAAATTTGAACAATGAAAGGAAAAAAGGAGAAAAA



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**FIGURE 173**

MASLSLAPVNIFKAGADEERAETARLTSFIGAIAIGDLVKSTLGPKGMDKILLSSGRDASLMVTNDGATILKNIG  
VDNPAAKVLVDMRSRVQDDEVGDGTTSTVLAELLREAESLIAKKIHPQTIIAGWREATKAAREALLSSAVDHGS  
DEVKFRQDLMNIAGTTLSSKLLTHHKDHFTKLAVEAVLRLKSGNLEAIHIIKKLGGSADSYLDEGFLLDKKIG  
VNQPKRIENAKILIAN TGMDTDKIKIFGSRVRVDSTAKVAEIEHAEKEKMKEKVERILKHGINCFINRQLIYNYP  
EQLFGAAGVMAIEHADFAGVERLALVTGGEIASTFDHPELVKLGSKLIEEVMIGEDKLIHFSGVALGEACTIVL  
RGATQQILDEAERSLHDALCVLAQTVKDSRTVYGGGCSEMLMAHAVTQLANRTPGKEAVAMESYAKALRMLPTII  
ADNAGYDSADLVAQLRAAHSEGNTTAGLDMREGTIGDMAILGITESFQVKRQVLLSAAEAAEVILRVDNIIKAAP  
RKRVPDHHPC

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**FIGURE 174**

GCCTGAGTGAGTCTCTGGCGTCCCAAATTGCCTGTTTTTCTCGCAGGCTCTATTCCGTTTCGCTGGTTCCGCCACCT  
CAGGGGAACG**ATG**GCCATGGAGTCCACAGCCACTGCCGCCGTCCGCCGCGACGTGGTTTCTGCCGACAAAATTGA  
AGATGTCCTTGCTCCTTCTACATCTGCAGATAAAGTGGAGAGTCTGGATGTGGATAGTGAAGCTAAGAACTATT  
GGGTTTAGGACAGAAACATCTGGTGATGGGGGATATTCCAGCAGCTGTCAATGCATTCCAGGAAGCAGCTAGTCT  
TTTAGGTAAGAAGTATGGAGAGACAGCTAATGAGTGTGGAGAAGCCTTCTTTTTCTATGGGAAATCACTTCTGGA  
GTTGGCAAGAATGGAGAATGGTGTGTTGGGAAACGCCCTTGAAGGTGTGCATGTGGAAGAGGAAGAAGGAGAAAA  
AACAGAAGATGAATCTCTGGTAGAAAATAATGATAACATAGATGAGGAAGCAAGGGAAGAGTTGAGAGAACAGGT  
TTATGACGCCATGGGAGAAAAAGAAGGCCAAAAAACAGAAGACAAGTCTTTGGCAAAGCCTGAAACTGATAA  
AGAACAGGACAGTGAAATGGAGAAGGGTGGAAAGAGAAGATATGGATATAAGTAAATCTGCAGAGGAGCCACAGGA  
AAAAGTTGACTTGACTCTAGATTGGTTAACTGAAACCTCTGAAGAGGCAAAAGGAGGAGCAGCACCAGAAGGACC  
GAATGAAGCTGAGGTCACTTCTGGGAAGCCAGAACAGGAAGTACCAGATGCTGAGGAAGAAAAATCAGTTTCTGG  
AACTGATGTCCAAGAAGAGTGCAGAGAAAAAGGAGGTCAAGAGAAGCAGGGAGAGGTAATTGTGAGCATAGAGGA  
GAAGCCAAAAGAAGTTTCAGAAGAGCAGCCTGTGGTGACTCTAGAAAAGCAGGGCACTGCAGTGGAGGTAGAAGC  
AGAGTCTTTAGACCCGACAGTCAAGCCAGTGGATGTGGGTGGGGACGAGCCAGAGGAGAAGGTAGTTACCTCTGA  
AAACGAGGCAGGAAAGGCGGTTCTTGAACAACTGGTAGGTCAAGAAGTACCACCTGCTGAAGAGTCACCAGAGGT  
GCAAACAGAGGCTGCAGAGGCCTCAGCTGTAGAGGCTGGATCAGAAGTCTCTGAAAAGCCTGGGCAGGAGGCTCC  
AGTTCTCCCTAAGGATGGTGCAGTCAATGGACCGTCAGTTGTAGGAGATCAGACTCCTATTGAACCACAGACTTC  
TATAGAAAGACTGACAGAAACAAAAGATGGCTCAGGACTAGAGGAGAAGGTCAAGGGCAAAGCTGGTTCCTAGTCA  
GGAGGAGACTAAGCTGTCTGTAGAAGAGTCTGAGGCAGCTGGAGATGGGGTTGATACCAAGGTAGCCCAGGGAGC  
TACTGAGAAATCACCTGAAGACAAAGTTCAGATAGCTGCTAATGAAGAGACACAAGAGAGAGAAGAACAGATGAA  
AGAGGGTGAAGAACTGAAGGCTCGGAAGAGGATGATAAAGAAAATGATAAGACTGAAGAAATGCCAAATGATTC  
AGTCCTTGAAAACAAGTCTCTTCAAGAAAATGAGGAGGAGGAGATTGGGAACCTAGAGCTTGCCTGGGATATGCT  
GGATTTAGCAAAGATCATTTTTTAAAGGCAAGAAACAAAAGAAGCACAGCTTTATGCTGCCCAGGCACATCTTAA  
ACTCGGAGAAGTTAGTGTTGAATCTGAAAACATATGTGCAAGCTGTGGAGGAGTTCCAGTCTGCCTTAACCTGCA  
GGAACAGTACCTGGAAGCCCACGACCGTCTGCTTGCAGAGACCCACTACCAGCTGGGCTTGGCTTATGGGTACAA  
CTCTCAGTATGATGAGGCAGTGGCACAGTTCAGCAAATCTATTGAAGTCATTGAGAACAGAATGGCTGTACTAAA  
CGAGCAGGTGAAGGAGGCTGAAGGATCGTCTGAATACAAGAAAGAAATTGAGGAATAAAGGAAGTGTACCCGA  
AATTAGAGAGAAGATAGAAGATGCAAAGGAGTCTCAGCGTAGTGGGAATGTAGCTGAAGTGGCTCTGAAAGCTAC  
TCTGGTGGAGAGTTCTACTTCAGGTTTCACTCCTGGTGGAGGAGGCTCTTCAGTCTCCATGATTGCCAGTAGAAA  
GCCAACAGACGGTGCTTCCTCATCAAATTGTGTGACTGATATTTCCACCTTGTGAGAAAGAAGAGGAAACCAGA  
GGAAGAGAGTCCCGGAAAGATGATGCAAAGAAAGCCAAACAAGAGCCGAGGTGAACGGAGGCAGTGGGGATGC  
TGTCCTCGAGTGGAAATGAAGTTTCGGAACCATGGAGGAGGAGGCTGAGAATCAGCTGAAACGCGGAGCAGCAGT  
GGAGGGGACACTGGAGGCTGGAGCTACAGTTGAAAGCACTGCATGT**TAAG**AGGGGGCACAGCCTCCTCCCAAGGG  
AAAGTGTTTTGTATATAATGTATTTTTTCACTTTTGGAGGATTCTTTTGTATAACTTCAATAAAGATTGTAAG  
CAAAAAAAAAA

**FIGURE 175**

MAMESTATAA VAADVVSADKIEDVPAPSTSADKVESLDVDSEAKLLGLGQKHLVMGDIPAAVNAFQEAASLLGK  
KYGETANECGEAFFFYGKSLLLELARMENGVLGNALEGVHVEEEEGEKTEDESLVENNDNIDEEAREELREQVYDA  
MGEKEEA KKTEDKSLAKPETDKEQDSEMEKGGREDMDISKSAEEPQEKVDLTLDWLTETSEEAKGGAAPEGPNEA  
EVTSGKPEQEVPDAAAAEESVSGTDVQEEREKGGQEKQGEVIVSIEEKPKEVSEEQPVVTLEKQGTAVEVEAESL  
DPTVKPVDVGDEPEEKVVTSENEAGKAVLEQLVGQEVPPAEESPEVQTEAAEASAVEAGSEVSEKPGQEAPVLP  
KDGAVNGPSVVGDTPIEPQTSIERLTETKDGSGLEEKVRACLVPSEETKLSVEESEAAAGDGVDTKVAQGATEK  
SPEDKVQIAANEETQEREEQMKEGEETEGSEEDDKENDKTEEMPND SVLENKSLQENEEEEIGNLELAWDMLDLA  
KIIIFKRQETKEAQLYAAQAHLKLGEVSVESENVYQAVEEFQSCNLNQEYLEAHDRLLAETHYQLGLAYGYNSQY  
DEAVAQFSKSIEVIENRMAVLNEQVKEAEGSSEYKKEIEELKELLPEIREKIEDAKESQSRSGNVAELALKATLVE  
SSTSGFTPGGGGSSVSMIASRKPTDGASSNCVTDISHLVRRKKRKPEEESPRKDDAKKAKQEPEVNGGSGDAVPS  
GNEVSENMEEEAENQLKRGAAVEGTLEAGATVESTAC

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**FIGURE 176**

GACTCCTAGGGGCTTGCAGACCTAGTGGGAGAGAAAGAACATCGCAGCAGCCAGGCAGAACCAGGACAGGTGAGG  
TGCAGGCTGGCTTTCTCTCGCAGCGCGGTGTGGAGTCTGTCTGCCTCAGGGCTTTTCGGAGCCTGGATCCTC  
AAGGAACAAGTAGACCTGGCCGCGGGGAGTGGGGAGGGAAGGGGTGTCTATTGGGCAACAGGGCGGCAAGCCCT  
GAATAAAGGGGCGCAGGGCAGGCGCAAGTGCAGAGCCTTCGTTTGCCAAGTCGCCTCCAGACCGCAGACATGAAA  
CTTGTCTTCTCGTCTGTCTTCTCGGGGCCCTCGGACTGTGTCTGGCTGGCCGTAGGAGAAGGAGTGTTCAG  
TGGTGCGCCGTATCCCAACCCGAGGCCACAAAATGCTTCCAATGGCAAAGGAATATGAGAAAAGTGCCTGGCCCT  
CCTGTGAGCTGCATAAAGAGAGACTCCCCCATCCAGTGTATCCAGGCCATTGCGGAAAACAGGGCCGATGTGTG  
ACCCTTGATGGTGGTTTCATATACGAGGCAGGCCTGGCCCCCTACAACTGCGACCTGTAGCGGCGGAAGTCTAC  
GGGACCGGAAAAGACAGCCACGAACTCACTATTATGCCGTGGCTGTGGTGAAGAAGGGCGGCAGCTTTTCAGCTGAAC  
GAACTGCAAGGTCTGAAGTCTGCCACACAGGCCTTCGCAGGACCGCTGGATGGAATGTCCCTACAGGGACACTT  
CGTCCATTCTTGAATTGGACGGGTCCACCTGAGCCCATTTAGGCGAGCTGTGGCCAGGTTCTTCTCAGCCAGCTGT  
GTTCCCGGTGCAGATAAAGGACAGTTCCCCAACCTGTGTGCGCTGTGTGCGGGGACAGGGGAAAACAAATGTGCC  
TTCTCCTCCCAGGAACCGTACTTCAGCTACTCTGGTGCCTTCAAGTGTCTGAGAGACGGGGCTGGAGACGTGGCT  
TTTATCAGAGAGAGCACAGTGTGAGGACCTGTCAGACGAGGCTGAAAGGGACGAGTATGAGTTACTCTGCCCCA  
GACAACACTCGGAAGCCAGTGGACAAGTTCAAAGACTGCCATCTGGCCCGGTCCCTTCTCATGCCGTTGTGGCA  
CGAAGTGTGAATGGCAAGGAGGATGCCATCTGGAATCTTCTCCGCCAGGCACAGGAAAAGTTTGAAAGGACAAG  
TCACCGAAATTCAGCTCTTTGGCTCCCTAGTGGGCAGAAAGATCTGCTGTTCAAGGACTCTGCCATTGGGTTT  
TCGAGGGTGGCCCCGAGGATAGATTCTGGGCTGTACCTTGGCTCCGGCTACTTCACTGCCATCCAGAACTTGAGG  
AAAAGTGAAGGAGGAAGTGGCTGCCCGGCGTGCAGCGGTGCTGTGGTGTGCGGTGGGCGAGCAGGAGCTGCGCAAG  
TGTAACCAGTGGAGTGGCTTGAGCGAAGGCAGCGTGACCTGCTCCTCGGCCTCCACCACAGAGGACTGCATCGCC  
CTGGTGTGAAAGGAGAAGCTGATGCCATGAGTTTGGATGGAGGATATGTGTACACTGCATGCAATGTGGTTTG  
GTGCCTGTCTTGGCAGAGAACTACAAATCCCAACAAAGCAGTGACCTGATCCTAACTGTGTGGATAGACCTGTG  
GAAGGATATCTTGCTGTGGCGGTGGTTAGGAGATCAGACACTAGCCTTACCTGGAACCTCTGTGAAAGGCAAGAAG  
TCCTGCCACACCGCCGTGGACAGGACTGCAGGCTGGAATATCCCCATGGGCCTGCTCTTCAACCAGACGGGCTCC  
TGCAAAATTTGATGAATATTTTCAAGTCAAAGCTGTGCCCTGGGTCTGACCCGAGATCTAATCTCTGTGCTCTGTGT  
ATTGGCGACGAGCAGGGTGAGAATAAGTGCCTGCCAACAGCAACGAGAGATACTACGGCTACACTGGGGCTTTT  
CGGTGCCTGGCTGAGAATGCTGGAGACGTTGCATTTGTGAAAGATGTCACTGTCTTGAGAACACTGATGGAAAT  
AACAATGAGGCATGGGCTAAGGATTTGAAGCTGGCAGACTTTGCGCTGCTGTGCCTCGATGGCAAACGGAAGCCT  
GTGACTGAGGCTAGAAGCTGCCATCTTGCCATGGCCCCGAATCATGCCGTGGTGTCTCGGATGGATAAGGTGGAA  
CGCCTGAAACAGGTGCTGCTCCACCAACAGGCTAAATTTGGGAGAAATGGATCTGACTGCCCGGACAAGTTTTC  
TTATTCCAGTCTGAAACCAAAAACCTTCTGTTCAATGACAACACTGAGTGTCTGGCCAGACTCCATGGCAAAACA  
ACATATGAAAAATATTTGGGACCACAGTATGTCGAGGCATTACTAATCTGAAAAAGTGCTCAACCTCCCCCTC  
CTGGAAGCCTGTGAATTCCTCAGGAAGTAAACCGAAGAAGATGGCCAGCTCCCCAAGAAAGCCTCAGCCATTC  
ACTGCCCCCAGCTCTTCTCCCCAGGTGTGTTGGGGCCTTGGCTCCCTGCTGAAGGTGGGGATTGCCCATCCATC  
TGCTTACAATTCCTGCTGTGCTCTTAGCAAGAAGTAAATGAGAAATTTGTTGATATTCAAAAAAA

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**FIGURE 177**

MKLVFLVLLFLGALGLCLAGRRRRSVQWCAVSQPEATKCFQWQRNMRKVRGPPVSCIKRDSPIQCIQAIENRAD  
AVTLDGGFIYEAGLAPYKLRPVAAEVYGTERQPRTHYYAVAVVKKGGSFQLNELQGLKSCHTGLRRTAGWNVPTG  
TLRPFLNWTGPPEPIEAAVARFFSASCVPGADKGQFPNLCRLCAGTGENKCAFSSQEPYFSYSGAFKCLRDGAGD  
VAFIRESTVFEDLSDEAERDEYELLCPDNTRKPVDFKDCHLARVPSHAVVARSVNGKEDAIWNLLRQAQEKFGK  
DKSPKFQLFGSPSGQKDLLFKDSAIGFSRVPPRIDSGLYLGSGYFTAIQNLRKSEEEVAARRARVVWCAVGEQEL  
RKCQWWSGLSEGSVTCSSASTTEDCIALVLKGEADAMSLDGGYVYTACKCGLVPVLAENYKSQSSDPDPNCVDR  
PVEGYLAVAVVRRSDTSLTWNSVKGKKSCHTAVDRTAGWNIPMGLLFNQTGSCKFDEYFSQSCAPGSDPRSNLCA  
LCIGDEQGENKCV PNSNERYYGITGAFRCLAENAGDVA FVKDVTVLQNTDGNNNEAWAKDLKLADFALLCLDGKR  
KPVTEARSCHLAMAPNHAVVSRMDKVERLKQVLLHQAKFGRNGSDCPDKFCLFQSETKNLLFNDNTECLARLHG  
KTTYEKYLG PQYVAGITNLKKCSTSPLEACEFLRK

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**FIGURE 178A**

GCCCCGAGTGCAATCGCGGGAAGCCAGGGTTTCCAGCTAGGACACAGCAGGTCGTGATCCGGGTCTGGGACACTGC  
CTGGCAGAGGCTGCGAGCATGGGGCCCTGGGGCTGGAAATTGCGCTGGACCGTCGCCTTGCTCCTCGCCGCGGCG  
GGGACTGCAGTGGGCGACAGATGTGAAAGAAACGAGTTCCAGTGCCAAGACGGGAAATGCATCTCCTACAAGTGG  
GTCTGCGATGGCAGCGCTGAGTGCCAGGATGGCTCTGATGAGTCCCAGGAGACGTGCTTGTCTGTACCTGCAAA  
TCCGGGGACTTCAGCTGTGGGGGCCGTGTCAACCGCTGCATTCCCTCAGTTCTGGAGGTGCGATGGCCAAGTGGAC  
TGCGACAACGGCTCAGACGAGCAAGGCTGTCCCCCAAGACGTGCTCCCAGGACGAGTTTCGCTGCCACGATGGG  
AAGTGCATCTCTCGGCAGTTCGTCTGTGACTCAGACCGGGACTGCTTGGACGGCTCAGACGAGGCCTCCTGCCCCG  
GTGCTCACCTGTGGTCCCGCCAGCTTCCAGTGCAACAGCTCCACCTGCATCCCCAGCTGTGGGCCTGCGACAAC  
GACCCCGACTGCGAAGATGGCTCGGATGAGTGGCCGACGCGCTGTAGGGGTCTTTACGTGTTCCAAGGGGACAGT  
AGCCCCTGCTCGGCCTTCGAGTTCCTACTGCCTAAGTGGCGAGTGTCATCCACTCCAGCTGGCGCTGTGATGGTGGC  
CCCGACTGCAAGGACAAATCTGACGAGGAAAACCTGCGCTGTGGCCACCTGTGCCCCTGACGAATTCCAGTGCTCT  
GATGGAAACTGCATCCATGGCAGCCGGCAGTGTGACCGGGAATATGACTGCAAGGACATGAGCGATGAAGTTGGC  
TGCGTTAATGTGACACTCTGCGAGGGACCCAACAAGTTCAAGTGTACAGCGGCGAATGCATCACCTTGGACAAA  
GTCTGCAACATGGCTAGAGACTGCCGGGACTGGTCAGATGAACCCATCAAAGAGTGCGGGACCAACGAATGCTTG  
GACAACAACGGCGGCTGTTCCACGTCTGCAATGACCTTAAGATCGGCTACGAGTGCCTGTGCCCCGACGGCTTC  
CAGCTGGTGGCCAGCGAAGATGCGAAGATATCGATGAGTGTGAGGATCCCGACACCTGCAGCCAGCTCTGCGTG  
AACCTGGAGGGTGGCTACAAGTGCCAGTGTGAGGAAGGCTTCCAGCTGGACCCCCACACGAAGGCCTGCAAGGCT  
GTGGGCTCCATCGCTACCTCTTCTTACCAACCGGCACGAGGTCAGGAAGATGACGCTGGACCGGAGCGAGTAC  
ACCAGCCTCATCCCCAACCTGAGGAACGTGGTCGCTCTGGACACGGAGGTGGCCAGCAATAGAATCTACTGGTCT  
GACCTGTCCCAGAGAATGATCTGCAGCACCCAGCTTGACAGAGCCCACGGCGTCTCTTCTATGACACCGTCATC  
AGCAGGGACATCCAGGCCCCCGACGGGCTGGCTGTGGACTGGATCCACAGCAACATCTACTGGACCGACTCTGTC  
CTGGGCACTGTCTCTGTTGCGGATACCAAGGGCGTGAAGAGGAAAACGTTATTAGGGAGAACGGCTCCAAGCCA  
AGGGCCATCGTGGTGGATCCTGTTTATGGCTTATGTACTGGACTGACTGGGGAACCTCCGCCAAGATCAAGAAA  
GGGGGCTGAATGGTGTGGACATCTACTCGCTGGTGAAGTGAACATTTCAGTGGCCCAATGGCATCACCTAGAT  
CTCCTCAGTGGCCGCCTCTACTGGGTTGACTCCAACTTCACTCCATCTCAAGCATCGATGTCAATGGGGGCAAC  
CGGAAGACCATCTTGAGGATGAAAAGAGGCTGGCCCCACCCCTTCTCCTTGGCCGTCTTTGAGGACAAAGTATTT  
TGGACAGATATCATCAACGAAGCCATTTTTCAGTGCCAACCGCCTCACAGGTTCCGATGTCAACTTGTGGCTGAA  
AACCTACTGTCCCCAGAGGATATGGTCCTCTTCCACAACCTCACCCAGCCAAGAGGAGTGAACCTGGTGTGAGAGG  
ACCACCTGAGCAATGGCGGCTGCCAGTATCTGTGCCTCCCTGCCCCGAGATCAACCCCCACTCGCCCAAGTTT  
ACCTGCGCCTGCCCCGACGGCATGCTGCTGGCCAGGGACATGAGGAGCTGCCTCACAGAGGCTGAGGCTGCAGTG  
GCCACCCAGGAGACATCCACCGTCAGGCTAAAGGTCAGCTCCACAGCCGTAAGGACACAGCACACAACCAACCCGG  
CCTGTTCCCGACACCTCCCGGCTGCCTGGGGCCACCCCTGGGCTCACACGGTGGAGATAGTGACAATGTCTCAC  
CAAGCTCTGGGCGACGTTGCTGGCAGAGGAAATGAGAAGAAGCCAGTAGCGTGAGGGCTCTGTCCATTGTCTC  
CCCATCGTGCTCCTCGTCTTCTTTCCTTGGGGTCTTCTTCTATGGAAGAACTGGCGGCTTAAGAACATCAAC  
AGCATCAACTTTGACAACCCCGTCTATCAGAAGACCACAGAGGATGAGGTCCACATTTGCCACAACCAAGGACGGC  
TACAGTACCCCTCGAGACAGATGGTCAGTCTGGAGGATGACGTGGCGTGAACATCTGCCTGGAGTCCCGCCCCCT  
GCCCAGAACCCTTCTGAGACCTCGCCGGCCTTGTTTTATTCAAAGACAGAGAAGACCAAGCATTGCCTGCCAG  
AGCTTTGTTTTATATATTTATTCATCTGGGAGGCAGAACAGGCTTCGGACAGTGCCCATGCAATGGCTTGGGTTG  
GGATTTTGGTTTCTTCTTCTTCTGTGAAGGATAAGAGAAACAGGCCCGGGGGGACCAGGATGACACCTCCATTC  
TCTCCAGGAAGTTTGTAGTTTCTCTCCACCGTGACACAATCCTCAAACATGGAAGATGAAAGGGCAGGGGATGTC  
AGGCCCAGAGAAGCAAGTGGCTTTCAACACACAACAGCAGATGGCACCAACGGGACCCCTGGCCCTGCCTCATC  
CACCAATCTCTAAGCCAAACCCCTAAACTCAGGAGTCAACGTGTTTACCTCTTCTATGCAAGCCTTGCTAGACAG  
CCAGGTTAGCCTTTGCCCTGTACCCCCGAATCATGACCCACCCAGTGTCTTTCGAGGTGGGTTTGTACCTTCTT  
TAAGCCAGGAAAGGATTTCATGGCGTCGGAAATGATCTGGCTGAATCCGTGGTGGCACCGAGACCAAACTCATTC  
ACCAATGATGCCACTTCCAGAGGCAGAGCCTGAGTCACCGGTACCCCTTAATATTTATTAAGTGCCTGAGACA  
CCCGGTTACCTTGGCCGTGAGGACACGTGGCCTGCACCCAGGTGTGGCTGTCAGGACACCAGCCTGGTGGCCATC  
CTCCCGACCCCTACCCACTTCCATTCCCGTGGTCTCCTTGCACCTTCTCAGTTTCAGAGTTGTACACTGTGTACAT  
TTGGCATTGTGTTATTATTTTGCACGTGTTTTCTGTGCTGTGTGTTGGGATGGGATCCCAGGCCAGGGAAAGCCC

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**FIGURE 178B**

GTGTCAATGAATGCCGGGGACAGAGAGGGGCAGGTTGACCGGGACTTCAAAGCCGTGATCGTGAATATCGAGAAC  
TGCCATTGTCGTCTTTATGTCCGCCCACCTAGTGCTTCCACTTCTATGCAAATGCCTCCAAGCCATTCACTTCCC  
CAATCTTGTCTGTTGATGGGTATGTGTTTAAACATGCACGGTGAGGCCGGGCGCAGTGGCCTCACGCCTGTAATC  
CCAGCACTTTGGGAGGCCGAGGCGGGTGGATCATGAGGTCAGGAGATCGAGACCATCCTGGCTAACAAGGTGAAA  
CCCCGTCTCTACTAAAAATACAAAAAATTAGCCGGGCGCGGTGGTGGGCACCTGTAGTCCCAGCTACTCGGGAGG  
CTGAGGCAGGAGAATGGTGTGAACCCGGGAAGCGGAGCTTGCAGTGAGCCGAGATTGCGCCACTGCAGTCCGCAG  
TCTGGCCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAAACAACAAAAAACCATGCATGGTGCATCAGC  
AGCCCATGGCCTCTGGCCAGGCATGGCGAGGCTGAGGTGGGAGGATGGTTTGAGCTCAGGCATTTGAGGCTGTGC  
TGAGCTATGATTATGCCACTGCTTTCCAGCCTGGGCAACATAGTAAGACCCCATCTCTTAAAAAATGAATTTGGC  
CAGACACAGGTGCCTCACGCCTGTAATCCCAGCACTTTGGGAGGCTGAGCTGGATCACTTGAGTTCAGGAGTTGG  
AGACCAGGCCTGAGCAACAAAGCGAGATCCCATCTCTACAAAAACCAAAAAGTTAAAAATCAGCTGGGTATGGT  
GCACGTGCCTGTGATCCCAGCTACTTGGGAGGCTGAGGCAGGAGGATCGCCTGAGCCCAGGAGGTGGAGGTTGCA  
GTGAGCCATGATCGAGCCACTGCACTCCAGCCTGGGCAACAGATGAAGACCCTATTTAGAAATACAACATAAAA  
AAAAATAAATAAATCCTCCAGTCTGGATCGTTTGACGGGACTTCAGGTTCTTTCTGAAATCGCCGTGTTACTGTT  
GCACTGATGTCCGGAGAGACAGTGACAGCCTCCGTCAGACTCCCGCGTGAAGATGTCACAAGGGATTGGCAATTG  
TCCCCAGGGACAAAACACTGTGTCCCCCCCAGTGCAGGGAACCGTGATAAGCCTTTCTGGTTTCGGAGCACGTAA  
ATGCGTCCCTGTACAGATAGTGGGGATTTTTTGTATGTTTGCACCTTGTATATTGGTTGAACTGTTATCACTT  
ATATATATATATACACACATATATATAAAATCTATTTATTTTGCAAACCCTGGTTGCTGTATTTGTTAGTGAC  
TATTCTCGGGGCCCTGTGTAGGGGTTATTGCCTCTGAAATGCCTCTTCTTTATGTACAAAGATTATTTGCACGA  
ACTGGACTGTGTGCAACGCTTTTTGGGAGAATGATGTCCCGTTGTATGTATGAGTGGCTTCTGGGAGATGGGTG  
TCACTTTTTAAACCACTGTATAGAAGGTTTTTGTAGCCTGAATGTCTTACTGTGATCAATTAAATTTCTTAAATG

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**FIGURE 179**

MGPWGWKLRWTVALLLAAAGTAVGDR CERNEFQCQDGKCI SYKWVCDGSAECQDGSDESQETCLSVTCKSGDFSC  
GGRVNR CIPQFWRC DGQVDCDNGSDEQGCPPKTC SQDEF RCHDGKCI SRQFVCDSDRDCLDGSDEASCPVLT CGP  
ASFQCNSSTCIPQLWACDNDPDCEDGSDEWPQRCRGLYVFQGDSSPCSAFEFHCLSGECIHSSWRCDGGPDCKDK  
SDEENCAVATCRPDEFQCS DGNCIHGSRQCDREYDCKDMSDEVGCVNVTLC EGP NKF KCHSGECITLDKVCNMAR  
DCRDWSDEPIKECGTNECLDNNGGCSHVCNDLKIGYECLCPDGFQLVAQRRCEDIDECQDPDTCSQLCVNLEGGY  
KCQCEEGFQLDPHTKACKAVGSIAYLFFTNRHEVRKMTLDRSEYTS LIPNLRNVVALDTEVASNRIYWS DLSQRM  
ICSTQLDRAHGVSSYDTVISRDIQAPDGLAVDWIHSNIYWTDSVLGTVSVADTKGVKRKTLFRENGSKPRAIVD  
PVHGFMYWTDWGTPAKIKKGG LNVGDIYSLVTENIQWPNGITL DLLSGRLYWVDSKLHSISSIDVNGGNRKTILE  
DEKRLAHPFSLAVFEDKVFWDI INE AIFSANRLTGSDVNLLAENLLSPEDMVL FHNLTQPRGVNWCERTTLSNG  
GCQYLCLPAPQINPHSPKFTCACPDGMLLARDMRSCLTEAEAAVATQETSTVRLKVSSTAVRTQH TTTTRPVPDTS  
RLPGATPGLTTVEIVTMSHQALGDVAGRGNEKKPSSVRALSIVLP IVLLVFLCLGVFLLWKNWRLKNINSINFDN  
PVYQKTTEDEVHICHNQDGYSYPSRQMV SLEDDVA



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**FIGURE 180**

AAGCGATGGCTGGGCCCCGCTGGATCTCCAAGGTCTCTCGGCTGCTGGGGGCATTCCACAACCCAAAACAGGTGA  
CCAGAGGTTTTTACTGGTGGTGTTCAGACAGTAACTTTAATTCCAGGAGATGGTATTGGCCCAGAAATTTTCACTG  
CAGTTATGAAGATTTTTGATGCTGCCAAAGCACCTATTCACTGGGAGGAGCGGAACGTCACTGCCATTCAAGGAC  
CTGGAGGAAAGTGGATGATCCCTTCAGAGGCTAAAGAGTCCATGGATAAGAACAAGATGGGCTTGAAAGGCCCTT  
TGAAGACCCCAATAGCAGCCGGTCACCCATCTATGAATTTACTGCTGCGCAAAACATTTGACCTTTACGCGAATG  
TCCGACCATGTGTCTCTATCGAAGGCTATAAAACCCCTTACACCGATGTAAATATTGTGACCATTTCGAGAGAACA  
CAGAAGGAGAATACAGTGGAAATTGAGCATGTGATTGTTGATGGAGTCGTGCAGAGTATCAAGCTCATCACCGAGG  
GGGCGAGCAAGCGCATTGCTGAGTTTGCCTTTGAGTATGCCCCGAACAACACCGGAGCAACGTACGGCGGTGC  
ACAAAGCCAACATCATGCGGATGTCAGATGGGCTTTTTCTACAAAAATGCAGGGAAGTTGCAGAAAGCTGTAAAG  
ATATTAAATTTAATGAGATGTACCTTGATACAGTATGTTTGAATATGGTACAAGATCCTTCCCAATTTGATGTTT  
TTGTTATGCCAAATTTGTATGGAGACATCCTTAGTGACTTGTGTGCAGGATTGATCGGAGGTCTCGGTGTGACAC  
CAAGTGGCAACATTGGAGCCAATGGGGTTGCAATTTTTGAGTCGGTTCATGGGACGGCTCCAGACATTGCAGGCA  
AGGACATGGCGAATCCACAGCCCTCCTGCTCAGTGCCGTGATGATGCTGCGCCACATGGGACTTTTTGACCATG  
CTGCAAGAATTGAGGCTGCGTGTGTTTGCTACAATTAAGGACGGAAAGAGCTTGACAAAAGATTTGGGAGGCAATG  
CAAAATGCTCAGACTTCACAGAGGAAATCTGTGCGCGAGTAAAAGATTTAGATTAAACACTTCTACAACCTGGCATT  
TACATCAGTCACTCTAAATGGACACCACATGAACCTCTGTTTGAATACCTACGTATGTATGCATTGGTTTGCTT  
GTTTCTTGACAGTACATTTTTAGATCTGGCCTTTTCTTAACAAAATCTGTGCAAAAGATGCAGGTGGATGTCCCT  
AGGTCTGTTTTCAAAGAACTTTTTCCAAGTGCTTGTTTTATTTATTAAGTGCTACCTGGTAAATGTTTTTTTG  
TAACTCTGAGTGGACTGTATCATTGCTATTCTAAACCATTTTACACTTAAGTTAAAATAGTTTCTCTTCAGCT  
GTAAATAACAGGATACAGAATTAACAAGAGAAAATGTCTAACTTTTTAAGAAAAACCTTATTTTCTTCGGTTTTT  
GAAAAACATAATGGAAATAAAACAGGATATTGACATAATAGCACAAAATGACACTCTTCTAAAACATAATGGGCA  
CAAGAGAATTTTCTGGGAAAGTTCACATCAAAAAGAGTGAATGTGGTATATTTCTAAATGATATGGAAAATAGA  
GACAGATTTGTCCTTTACAGAAATTACTGAGTGTGAATAAAAACTTCAGATCCAAGAAATATATAATGAGAGATA  
TAATTTTTTGTTAATAAGACAAAGGTAATATATTGGATACAAAGACACAAATGTATTGTGTGTTCAATTATTTGT  
TGTCTTGAGATTTAATATTCTTTCCAAGAGCTTTTTAATGAAGCAGAGAGCTAGTACTTCATTTTCACTGGATACA  
TTTTCAGCATCATGAGTTGTACAGCCTCTGAGCCCCTGATCTGAAGCCAGAAGGGCTGAGTGTATTGTAAACTT  
ATTCTTGATGTTGCTGTCTGGGAATGGACCACACTACAGCAGGTAGTTCTGGGGGCGATACTGCCGAAAGGCCC  
GAACACATGTATTTGGCTGCAATTGAGGAACCTGGGATGCTATTAATTTGTATTTTCACTGCAACTGCCCTTCTC  
CTATCCCAAAGCACCAATTACTGCCCTCTGCCTCAGCAGTACCAGTATAAGATGACATTCCAAAGACTGGAGGCA  
ACTCAGCCTGAGTTAATTCACAAAATTATGCCATGCTGGGGCTTGAGCTTGAGCTTGGGCTTAGGCTTGGGCTCA  
GCTTTTGACCCCTCAGGCATCTCCTTTTCTTCTGTCTTCTCTCCCTTCTCCTCTGCTGCAGCATGATTTTCTT  
AATCTTCAGACACTCACTATTTTCATGAACAGTTACCCTCTGTCCCCACAACCAAAGACAACCTCATGGCCTCCTT  
TGGCCCTTGTGTAACATTGCAAACCTGTGGCTTTGCAAAATGTACCCAGGTCACAAGGGGATTTTTTTTTTTTA  
GCAATGATATCCCTGTCTGGGTCACTTTTTAAGCTTGTAACCGCCCCCAGACTTATAATCTTAAATGTATTTT  
CCTTTGTTTAAAGCTGCTGCTTCTGTTTCATTGGATTGTGCCAGTTATCAGTGGCTCTTGGGTTCAAAGTAAT  
AAA

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**FIGURE 181**

MAGPAWISKVSRLLGAFHNPKQVTRGFTGGVQTVTLIPGDGIGPEISAAVMKIFDAAKAPIQWEERNVTAIQGPG  
GKWMIPSEAKESMDKNKMGLKGPLKTPIAAGHPSMNLRLRKTFDLYANVRPCVSIEGYKTPYTDVNIVTIRENTE  
GEYSGIEHVIVDGVVQSIKLITEGASKRIAFAFEYARNNHRSNVTAVHKANIMRMSDGLFLQKCREVAESCKDI  
KFNEMYLDTVCLNMVQDPSQFDVLVMPNLYGDILSDLCAGLIGGLGVTPSGNIGANGVAIFESVHGTAAPDIAGKD  
MANPTALLLSAVMMLRHMGLFDHAARIEAACFATIKDGKSLTKDLGGNAKCSDFTEEICRRVKDLD

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**FIGURE 182A**

CAAGTGCCGTCGCCGCGCCCCCTTCCCCCTCCCGCCTCCCGGCCCCCTCCCGGAACCGGCGGTTCGAGCTACGGT  
CGCGGACGAGTGGAACCGAGACTGCCCCGCGGAGCCGCCGGTATGAGCGCCCTCGCCACCCCGTGTCCAGGCC  
CGGCCCTTCTGACAAGAGCTAGACTTCGGGCTCCTTGAGGATATTCAGTTTGTATGTTTGAATATCCTCTCACC  
ATGTTTCAGCATAAAGTACCATTCTTAATGATTATCCTCAACAAGACAGGTGTGAGAGGGTTGCTGTTGCATTGCA  
ATC**ATGG**TGCAAAAATACCAGTCCCCAGTGAGAGTGTACAAATACCCCTTGAATTAATTATGGCTGCCTATGAA  
AGGAGGTTCCCTACATGTCTTTGATTCCGATGTTTCGTGGGCAGTGACACTGTGAGTGAATTCAGAGCGAAGAT  
GGGGCTATTATGTCATTGAAAGGCGCTGCAAGCTGGATGTAGATGCACCCAGACTGCTGAAGAAGATTGCAGGA  
GTTGATTATGTTTATTTTGTCCAGAAAACTCACTGAATTCTCGGGAACGTACTTTGCACATTGAGGCTTATAAT  
GAAACGTTTTTCCAATCGGGTCATCATTAAATGAGCATTGCTGCTACACCGTTCACCCGTGAAAATGAAGATTGGACC  
TGTTTTGAACAGTCTGCAAGTTTAGATATTAAATCTTTCTTTGGTTTTGAAAGTACAGTGGAATAATTGCAATG  
AAACAATATACCAGCAACATTAAGGAAAGGAAATCATCGAATACTACCTTCGCCAATTAGAAGAAGAAGGC  
ATAACCTTTGTGCCCCGTGGAGTCCGCTTCCATCACGCCCTCTTCAGAGACATCTTCATCATCTCCAAGAA  
CAAGCAGCGTCCATGGCCGTGTCATCCCAGAAGCTGCCCTCAAGGAGGGGCTGAGTGGTGATGCCCTCAGCAGC  
CCCAGTGCACCTGAGCCCGTGGTGGGCACCCCTGACGACAAACTAGATGCCGACCACATCAAGAGATACCTGGGC  
GATTTGACTCCGCTGCAGGAGAGCTGCCTCATTAGACTTCGCCAGTGGCTCCAGGAGACCCACAAGGGCAAATT  
CCAAAAGATGAGCATATTCTTCGGTTCCTCCGTGCACGGGATTTTAATATTGACAAAGCCAGAGAGATCATGTGT  
CAGTCTTTGACGTGGAGAAAGCAGCATCAGGTAGACTACATTCTTGAAACCTGGACCCCTCCTCAGGTCTTCAG  
GATTACTACGCGGGAGGCTGGCATCATCACGACAAAGATGGGCGGCCCTCTACGTGCTCAGGCTGGGGCAGATG  
GACACCAAAGGCTTGGTGAGAGCGCTCGGGGAGGAAGCCCTGCTGAGATACGTTCTCTCCGTAAATGAAGAACGG  
CTAAGGCGATGCGAAGAGAATAACAAAGTCTTTGGTCGGCCTATCAGCTCATGGACCTGCCTGGTGACTTGAA  
GGGCTGAACATGCGCCACTTGTGGAGACCTGGTGTGAAAGCGCTGCTGCGGATCATCGAGGTGGTGAGGCCAAC  
TACCCTGAGACACTGGGCCGCTTCTCATCTGCGGGCGCCAGGGTATTTCTGTGCTCTGGACGCTGGTTAGT  
CCGTTTATTGATGACAACACCAGAAGGAAGTTCTCATTTATGCAGGAAATGACTACCAGGGTCTGGAGGCCTG  
CTGGATTACATCGACAAAGAGATTATTCCAGATTTCTGAGTGGGGAGTGCATGTGCGAAGTGCCAGAGGGTGA  
CTGGTCCCCAAATCTCTGTACCGACTGCAGAGGAGCTGGAGAACGAAGACCTGAAGCTCTGGACTGAGACCATC  
TACCAGTCTGCAAGCGTCTTCAAAGGAGCCCCACATGAGATTCTCATTAGATTGTGGATGCCTCGTCAGTCATC  
ACTTGGGATTTTCGACGTGTGCAAAGGGGACATTGTGTTTAAACATCTATCACTCCAAGAGGTGCCACAACACCC  
AAAAAGGACTCCCTGGGAGCCACAGCATCACCTCTCCGGGTGGGAACAATGTGCAGCTCATAGACAAAGTCTGG  
CAGCTGGGCCCGGACTACAGCATGGTGGAGTCGCTCTGATCTGCAAAGAAGGAGAAAGCGTGCAGGGTTCCCAT  
GTGACCAGGTGGCCGGGCTTCTACATCCTGCAGTGGAATTCCACAGCATGCCTGCGTGCGCCGCCAGCAGCCTT  
CCCCGGGTGGACGACGTGCTTGCCTGCTGCAGGTCTCTTCGCACAAGTGTAAGTGATGTACTACACCGAGGTG  
ATCGGCTCGGAGGATTTAGAGGTTCCATGACGAGCCTGGAGTCCAGCCACAGCGGCTTCTCCCAGCTGAGTGCC  
GCCACCACCTCCTCCAGCCAGTCCCACTCCAGCTCCATGATCTCCAGG**TAG**TGCCGCGCTGCCTGCACCTAGTGT  
GCAGAGGGGACGGCCGCCCTCCTCGGACAGCAGCTGCACCCGCCACCCAGCGGCGACATTGTACAGACTCCTC  
TCACCTCTAGATAGCAAAAGCTCTCAGATGGTAAACGTAGTTCGTTTGATCCCAAACTACCTTGGCAGGTAGTT  
TTAACTCTGATCCTAACTTAACTCAATAGCCATAGATTTTGTATACGTTGTGCACAAAATCCAACCAGAGCGCAA  
GGGCTCTCTTGAAAGAAAAGTAGTTTCTGTACCAATTAAAGGATTGACGTGGTCTCAGATATTGATGCAAAAAAT  
TTTTCCAACGAACTCCGCATTGTCCATTAGTGAATGAATTCCTGTGACATCCTCCAGAGATGGCCCCCTCTCACC  
TGGGACGGAAGCTGCCAGCTCGCTTCCCCAAGCTGCCTCATGGCCCGCACGCCGCTCACGGCCCCCATGCTTC  
CCGCCAGTCAAGATGGTCTGTGGACTTAGGGCCAGCCCTTGAGGTCTTATCCTCTGAGGATTAGAGGTTGCCT  
GCGGAGTACCTTGTCCAGGGCCAGACACACCCACACCCACTGTCTGCAGTGGGGCCGGGGGCTCAGGAGGG  
GCTCTCAGGGACTCCTGGTGACTCCAGGAAAATGCTGCCATCGTTAAACATTACTTTCTCTTTCTCTTTTCAA  
ATCTTTTTTGATACTTTTTAGAGCAGGATTTTTCTGTATGTGAACCTGGGTGGGGGGGTCTTCCCGTTTCTTCC  
GTGCGTCGCCCCCTCTCACCTGCAGTCAGTCCCAGCCAGTGTAGGCCATCTCCTCTGTGCCCTCTGGAGGCTCA  
TTGTCTCAGAGCCCAGACAGTTCAGCCACTAGGAGGCCGTCTTGAACCAAGCAAGTCGCATTGCCACTTGACA  
CTGTCCATGGGGTTTTATTAGTAGCTAAGCAGCAGCTCTCGCATCCACTTCAGGGTGGCGTGTGGCATGTAGGAG  
TCCTGCTTCTTTGTACATGGGAATTGTGGACTCATGCGTGTGTGTGTGTGCATGTGCTGTGTGTGTGCATGTGTG  
CATGACGGTGGGGGTGCTGGGGGGACGGGGTGAGTGGAACCTTAGTTTGAGTAATGAAGGAATCTTCACAGAAGC

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**FIGURE 182B**

AAATCAGAATATGGGATTTGTTTGCCTTTTACATTTTGTTTAATTCCTGATTTTAAAGCCTGCTCTATCTGGTAC  
AGGCCCTTATTTTTTTCAGCTTTTATGGGAAAAGCAGGTTATTTGAGAATCTGTCCAGAAGTTGCATAGGGGATG  
GCCTCCACGATAAGGACATGCAACACGTGTTTCTGTGTGCAGCAGAGGCCGTGTTTTTCATGCCAAACCCACGC  
GGCTGTCAACTGTGTGCGTGGTAGGCATGGAGATCCTGGTTGTGCCGTCTCAGCTCCGCTCTGAAGGCACTGTGT  
GGGTGCTGCGTGAAGTGGAGAGCTGTGTGGAGGCCATGTGTGCCCCGTGCAGGGATCAGGAGGGCGGGGAGGGAC  
CGAGCAGCCCTCTTGCCCGGTGCGGTCAGCCCTAGTGGCTGCCTGCACACTGTAGACGTCCCAGGGCCTGTGCTG  
TGATCACCTGCCTTTGGACCACATTTGTGTTTGCTCTTAGAGATCGAGCTCCTCAGTGGTACCTGAAGCCTTTGC  
TTCCGGAAGCGCGGTAGGGTTCGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTA  
GTAGGTAGGGTTAGTAGGTAGGGTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGG  
TTCGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGT  
GGGTTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGTTTCGTAGGTAGGGCTAGT  
GTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGTTCGTAGGTAGGGCTG  
TAGGTAGGGTTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGG  
GGCTAGTAGGTAGGGCTAGTAGGTAGGGTTAGTAGGTAGGGTTCGTAGGTAGGGCTGGTAGGTAGGGTTAGTAG  
GGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAGGTAGGGCTAGTAG  
TAGGGCTAGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGTTCGTAGGTAGGGTTAGTAGCGCGTCTGTGC  
TGCTTCCACCTGGTGCTTCCGTGTTCCCAAATCACAAGGGCCTGAAGGTGGTCCCTGCTTTCTCTTTCTCTCTC  
TGTGTCTCAGATGGCGATTTTGCTGACAGCTGCCAAGAAAATGCTTCACTCAACAGTCCTCATGTGCCAGAGAT  
GTTTATAGAACTGTTTGAATTGCAGCCATCCCCTGCCCCCTCCCAGGCTGAAGATCTGTTCTTTTTAAGTTGATT  
CGGGAGTGGCATTCTTTTATACCCAAAGACTGTAGTGCATCTTGAAGAGCTCAAAGCACATGACCGCACAAATGC  
TTACAGGGTTTCTCCCGAGTAATCCAATCTCACTCCCCTTGTAAGGGAATTCTGGGGCAGCTATGGTTTGAGTA  
TGCAGTTTGCATCGTGTCTTCTACCTTTAGTACCTTGCCACTCTTTTAAAACGCTGCTGTCATTTCCCATTTCTTA  
GTACTAATGATTCTTTGATTCTCCCTCTATTATGTCTTAATCACTTTTCTTCTAAATTTGTTATTTGCATATC  
AAATTCTGTAAATGTTTTGTAAACATATTACCTCACTTGGTAATACAATACTGATAGTCTTTAAAGATTTTTTT  
ATTGTTATCAATAATAAATGTGAACATTTTAAAG

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**FIGURE 183**

MVQKYQSPVRVYKYPFELIMAAYERRFPTCLIPMFVGS DTVSEFKSEDGAIHVIERRCKLDVDAPRLKKIAGV  
DYVYFVQKNSLNSRERTLHIEAYNETFSNRVIINEHCCYTVHPENEDWTCFEQSASLDIKSFFGFESTVEKIAMK  
QYTSNIKKGKEIEYYLRQLEEEGITFVPRWSPPSITPSSETSSSSSKQAASMAVVIPEAALKEGLSGDALSSP  
SAPEPVVGTPDDKLDADHIKRYLGDLTPLQESCLIRLRQWLQETHKGKIPKDEHILRFLRARDFNIDKAREIMCQ  
SLTWRKQH QVDYILETWTPPQVLQDYYAGGWHHDKDGRPLYVLR LGQMDTKGLVRALGEEALLRYVLSVNEERL  
RRCEENTKVFGRPISWTCCLVDLEGLNMRHLWRPGVKALLRIIEVVEANYPETLGRLLILRAPRVFPVLWTLVSP  
FIDNTRRKFLIYAGNDYQGPGLLDYIDKEIIPDFLSGECMCEVPEGGLVPKSLYRTAEELNEDLKLWTETIY  
QSASVFKGAPHEILIQIVDASSVITWDFDVCKGDIVFNIYHSKRSPQPPKDSLGAHSITSPGGNNVQLIDKVWQ  
LGRDYSMVESPLICKEGESVQGS HVTRWPGFYILQWKFHSM PACAASSLPRVDDVLASLQVSSHCKKVMYYTEVI  
GSEDFRGSMTSLESSHSGFSQLSAATTSSSQSHSSSMISR

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**FIGURE 184**

AATTCGCGGAATCATCGGAATCCTTCACCATGGCATCCAGCCCGGCCAGCGTCGGCGAGGCAATGATCCTCTC  
ACCTCCAGCCCTGGCCGAAGCTCCCGGCGTACTGATGCCCTCACCTCCAGCCCTGGCCGTGACCTTCACCATT  
GAGGATGAGTCCGAGGGGCTCCTAGGCACAGAGGGGCCCTGGAGGAAGAAGAGGATGGAGAGGAGCTCATTGGA  
GATGGCATGGAAAGGGACTACCGCGCCATCCCAGAGCTGGACGCCTATGAGGCCGAGGGACTGGCTCTGGATGAT  
GAGGACGTAGAGGAGCTGACGGCCAGTCGAAGGGAGGCAGCAGACGGGCCATGCGGCACGGTGACCGGGAGCTGG  
CCGGGGCTGGGCGCATGCGCCGTGGGCTCCTGTATGACAGCGATGAGGAGGACGAGGAGCGCCCTGCCCCGAAGC  
GCCGCCAGTGGAGCCGGCACGGAGGACGGCGAGGAGGACGAGCAGATGATTGAGAGCATCGAGAACCTGGAGGAT  
CTCAAAGGCCACTCTGTGCGCGAGTGGGTGAGCATGGCGGGCCCCCGGCTGGAGATCCACCACCGCTTCAAGAAC  
TTCCTGCGCACTCACGTGACAGCCACGGCCACAACGTCTTCAAGGAGCGCATCAGCGACATGTGCAAAGAGAAC  
CGTGAGAGCCTGGTGGTGAACATGAGGACTTGGCAGCCAGGGAGCACGTGCTGGCCTACTTCTGCGCTGAGGCA  
CCGGCGGAGCTGCTGCAGATCTTTGATGAGGCTGCCCTGGAGGTGGTACTGGCCATGTACCCCAAGTACGACCGC  
ATCACCAACCACATCCATGTCCGCATCTCCACCTGCCTCTGGTGGAGGAGCTGCGCTCGCTGAGGCAGCTGCAT  
CTGAACCAGCTGATCCGCACCAAGTGGGGTGGTGACCAGCTGCACTGGCGTCTGCCCCAGCTCAGCATGGTCAAG  
TACAACTGCAACAAGTGAATTTCTGTCCTGGGTCCTTTCTGCCAGTCCCAGAACCAGGAGGTGAAACCAGGCTCC  
TGTCCTGAGTGCCAGTCGGCCGGCCCCCTTTGAGGTCAACATGGAGGAGACCATCTATCAGAACTACCAGCGTATC  
CGAATCCAGGAGAGTCCAGGCAAAAGTGGCGGCTCGGCGGCTGCCCCGCTCCAAGGACGCCATTCTCCTCGCAGAT  
CTGGTGGACAGCTGCAACGCAGGAGACGAGATAGAGCTGACTGGCATCTATCACAACAATATGATGGCTCCCTC  
AACTACTGCCAATGGCTTCCCTGTCTTTGCCACTGTATCCTAGCCAACCACGTGGCCAAGAAGGACAACAAGGTT  
GCTGTAGGGGAACTGACCGATGAAGATGTGAAGATGATCACTAGCCTCTCCAAGGATCAGCAGATCGGAGAGAAG  
ATCTTTGCCAGCATTGCTCCTTCCATCTATGGTCATGAAGACATCAAGAGAGGCCCTGCTCTGGCCCTGTTTCGGA  
GGGGAGCCCCAAAACCCAGGTGGCAAGCACAAGGTACGTGGTGATATCAACGTGCTCTTGTGCGGAGACCCTGGC  
ACAGCGAAGTCGCAGTTTCTCAAGTATATTGAGAAAGTGTCCAGCCGAGCCATCTTCACCCTGGCCAGGGGGCG  
TCGGCTGTGGCCGTACGGCGTATGTCCAGCGGCACCCTGTGACGAGGGAGTGACCTTGAGGGCTGGGGCCCTG  
GTTCTGGCTGACCGAGGAGTGTTGTCTCATTGATGAATTTGACAAGATGAATGACCAGGACAGAACCAGCATCCAT  
GAGGCCATGGAGCAACAGAGCATCTCCATCTCGAAGGCTGGCATCGTCACCTCCCTGCAGGCTCGCTGCACGGTC  
ATTGCTGCCGCCAACCCCATAGGAGGGCGCTACGACCCCTCGCTGACTTCTCTGAGAACGTGGACCTCACAGAG  
CCCATCATCTCACGCTTTGACATCCTGTGTGTGGTGAGGGACACCGTGGACCCAGTCCAGGACGAGATGCTGGCC  
CGCTTCGTGGTGGGCAGCCACGTGAGACACCACCCAGCAACAAGGAGGAGGAGGGGCTGGCCAATGGCAGCGCT  
GCTGAGCCCGCCATGCCAACACGTATGGCGTGGAGCCCCCTGCCCCAGGAGGTCTGAAGAAGTACATCATCTAC  
GCCAAGGAGAGGGTCCACCCGAAGCTCAACCAGATGGACCAGGACAAGGTGGCCAAGATGTACAGTGACCTGAGG  
AAAGAATCTATGGCGACAGGCAGCATCCCCATTACGGTGCGGCACATCGAGTCCATGAGTCATGGCGGAGGCCCA  
CGCGCGCATCCATCTGCGGGACTATGTGATCGAAGACGACGTCAACATGGCCATCCGCGTGATGCTGGAGAGCTT  
CATAGACACACAGAAGTTCAGCGTCATCGCAGCATGCGCAAGACTTTTGCCGCTACCTTTTCATTCCGGCGTGAC  
AACAATGAGCTGTTGCTCTTCATACTGAAGCAGTTAGTGGCAGAGCAGGTGACATATCAGCGCAACCGCTTTGGG  
GCCAGCAGGACACTATTGAGGTCCCTGAGAAGGACTTGGTGGATAAGGCTCGTCAGATCAACATCCACAACCTC  
TCTGCATTTTATGACAGTGAGCTCTTCAGGATGAACAAGTTCAGCCACGACCTGAAAAGGAAAATGATCCTGCAG  
CAGTTCTGAGGCCCTATGCCATCCATAAGGATTCTTGGGATTCTGGTTTGGGGTGGTCAGTGCCCTCTGTGCTT  
TATGGACACAAAACCAGAGCACTTGATGAACTCGGGGTACTAGGGTCAGGGCTTATAGCAGGATGTCTGGCTGCA  
CCTGGCATGACTGTTTGTCTTCTCCAAGCCTGCTTTGTGCTTCTCACCTTTGGGTGGGATGCCTTGCCAGTGTGTC  
TACTTGGTTGCTGAACATCTTGCCACCTCCGAGTGCTTTGTCTCCACTCAGTACCTTGGATCAGAGCTGCTGAG  
TTCAGGATGCCTGCGTGTGGTTTAGGTGTTAGCCTTCTTACATGGATGTCAGGAGAGCTGCTGCCCTCTTGGCGT  
GAGTTGCGTATTACAGGCTGCTTTTGTCTGCTTTGGCCAGAGAGCTGGTTGAAGATGTTTGTAAATCGTTTTTCAGTC  
TCCTGCAGTTTCTGTGCCCCGTGTGGTGGAAGAGGCACGACAGTGCCAGCGCAGCGTTCTGGGCTCCTCAGTCGC  
AGGGGTGGGATGTGAGTCATGCGGATTATCCACTCGCCACAGTTATCAGCTGCCATTGCTCCCTGTCTGTTTCCC  
CACTCTCTTATTTGTGCATTGCGGTTTGGTTTCTGTAGTTTTAATTTTTAATAAAGTTGAATAAAATATAAAAAA  
AAAA

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**FIGURE 185**

MASSPAQRRRGNDPLTSSPGRSSRRTDALTSSPGRDLPPFEDESEGLLGTEGPLEEEEEEDGEELIGDGMERDYRAI  
PELDAYEAEGALDDEDVEELTASRREAADGPCGTVTGSWPGLGACAVGSCMTAMRRTRSALPASAASGAGTEDG  
EEDEQMIESIENLEDLKGHSVREWVSMAGPRLEIHHRFKNFLRTHVDSHGHNVFKERISDMCKENRESLVVNYED  
LAAREHVLAYFLPEAPAEELLQIFDEAALEVVLAMYPKYDRITNHIHVRISHLPLVEELRSLRQLHLNQLIRTSGV  
VTSGTGVLPLQLSMVKYCNKCNFVLGPFCQSQNQEVKPGSCPECQSAGPFVEVNMEETIYQNYQRIRIQESPGKVA  
ARRLPRSKDAILLADLVDSNAGDEIELTGIYHNNYDGSNTANGFPVFATVILANHVAKKDNKVAVGELTDEDV  
KMITSLSKDQQIGEKIFASIAPSIYGHEDIKRGPALALFGGEPKNPGGKHKVRGDINVLLCGDPGTAKSQFLKYI  
EKVSSRAIFTTGQASAVAVTAYVQRHPVSREWLEAGALVLADRGVCLIDEFDKMNDQDRTSIHEAMEQQSISI  
SKAGIVTSLQARCTVIAAANPIGGRYDPSLTFSENVDLTEPIISRFDILCVVRDTPVQDEMLARFVVGSHVRH  
HPSNKEEEGLANGSAAEPAMPNTYGVEPLPQEVLLKKYIIYAKERVHPKLNQMDQDKVAKMYSDLRKESMATGSIP  
ITVRHIESMSHGGGPRAHPSAGLCDRRRRQHGHPRDAGELHRHTEVQRHRSMRKTfARYLSFRDNNELLFILK  
QLVAEQVTYQRNRFGAQQDTIEVPEKDLVDKARQINIHNLsafyDSELFrmNKFshDLKRKMILQQF

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FIGURE 186A

TGAATTCGTGAGAGACTTGAGGGAGGCGCTGCGACTGACAAGCGGCTCTGCCCGGGACCTTCTCGCTTTTCATCTA  
GCGCTGCACTCAATGGAGGGGCGGGACCGCAGTGCTTAATGCTGTCTTAAGTAGTGTAGGAAAACGGCTCAACC  
CACCGCTGCCGAAATGAAGTATAAGAATCTTATGGCAAGGGCCTTATATGACAATGTCCCAGAGTGTGCCGAGGA  
ACTGGCCTTTTCGAAGGGAGACATCCTGACCGTCATAGAGCAGAACACAGGGGGACTGGAAGGATGGTGGCTGTG  
CTCGTTACACGGTCGGCAAGGCATTGTCCCAGGCAACCGGGTGAAGCTTCTGATTGGTCCCATGCAGGAGACTGC  
CTCCAGTCACGAGCAGCCTGCCTCTGGACTGATGCAGCAGACCTTTGGCCAAACAGAAGCTCTATCAAGTGCCAAA  
CCCACAGGCTGCTCCCCGAGACACCATCTACCAAGTGCCACCTTCCTACCAAATCAGGGAATTTACCAAGTCCC  
CACTGGCCACGGCACCCAAGAACAAGAGGTATATCAGGTGCCACCATCAGTGCAGAGAAGCATTGGGGGAACAG  
TGGGCCCCACGTGGGTAAAAAGGTGATAACCCCCGTGAGGACAGGCCATGGCTACGTATACGAGTACCCATCCAG  
ATACCAAAAGGATGTCTATGATATCCCTCCTTCTCATACCACTCAAGGGGTATACGACATCCCTCCCTCATCAGC  
AAAAGGCCCTGTGTTTTTCAGTTCCAGTGGGAGAGATAAAACCTCAAGGGGTGTATGACATCCCGCTACAAAAGG  
GGTATATGCCATTCCGCCCTCTGCTTGCCGGGATGAAGCAGGGCTTAGGGAAGAAAGACTATGACTTCCCCCTCC  
CATGAGACAAGCTGGAAGGCCGGACCTCAGACCGGAGGGGGTTTATGACATTCCCTCCAACCTGCACCAAGCCAGC  
AGGGAAGGACCTTCATGTAAAATACAAGTGTGACATTCCAGGAGCTGCAGAACCAGGTGGCTCGAAGGCACAGAG  
CCTGTCCCCGAATCACCCACCCCGCAACTCGGACAGTCAGTGGGCTCTCAGAACGACGCATATGATGTCCCCCG  
AGGCGTTTCACTTTCTTGAGCCACCAGCAGAAACCAGTGAGAAAGCAAACCCCCAGGAAAGGGATGGTGTATATGA  
TGTCCCTCTGCATAACCCGCCAGATGCTAAAGGCTCTCGGGACTTGGTGGATGGGATCAACCGATTGTCTTTCTC  
CAGTACAGGCAGCACCCGGAGTAACATGTCCACGTCTTCCACCTCCTCCAAGGAGTCTCACTGTGAGCCTCCCC  
AGCTCAGGACAAAAGGCTCTTCTGGATCCAGACACAGCTATTGAGAGACTTCAGCGGCTCCAGCAGGCCCTTGA  
GATGGGTGTCTCCAGCCTAATGGCACTGGTCACTACCGACTGGCGGTGTTACGGATATATGGAAGACACATCAA  
TGAAATACGCACAGCAGTGGACAAGGTGGAGCTGTTTCTGAAGGAGTACCTCCACTTTGTCAAGGGAGCTGTTGC  
AAATGCTGCCTGCCTCCCCGGAACCTATCTCCACAACAAGATGAAGCGGGAGCTGCAACGAGTCAAGACTCCCA  
CCAGATCCTGAGTCAAACCAGCCATGACTTAAATGAGTGCAGCTGGTCCCTGAATATCTTGGCCATCAACAAGCC  
CCAGAACAAGTGTGACGATCTGGACCGGTTTTGTGATGGTGGCAAAGACGGTGCCCGATGACGCCAAGCAGCTCAC  
CACAACCATCAACACCAACGCAGAGGCCCTCTTCAGACCCGGCCCTGGCAGCTTGATCTGAAGAATGGGCCGGA  
GAGCATCATGAACCTCAACGGAGTACCCACACGGTGGCTCCCAGGGACAGCTGCTGCATCCTGGTGACCACAAGGC  
CCAGGCCCCACAACAAGGCAGTCCCCCAGGCCTGAGCAAGGAGCAGGCCCTGACTGTAGCAGCAGTGATGGTTC  
TGAGAGGAGCTGGATGGATGACTACGATTACGTCCACCTACAGGGTAAGGAGGAGTTTTGAGAGGCAACAGAAAGA  
GCTATTGGAAAAAGAGAATATCATGAACAGAACAAAGATGCAGCTGGAACATCATCAGCTGAGCCAGTTCCAGCT  
GTTGGAACAAGAGATTACAAAGCCCGTGGAGAATGACATCTCGAAGTGAAGCCCTCTCAGAGCCTACCCACCAC  
AAACAGTGGCGTGAGTGCTCAGGATCGGCAGTTGCTGTGCTTCTACTATGACCAATGTGAGACCCATTTTCAATTC  
CCTTCTCAACGCCATTGACGCACTCTTCAGTTGTGTGAGCTCAGCCCAGCCCCGCGAATCTTCGTGGCACACAG  
CAAGTTTGTATCTCAGTGACACAACTGGTGTTCATTGGAGACACGCTGACACGGCAGGTGACTGCCCAGGA  
CATTGCAACAAAGTCATGAACCTCAGCAACCAGCTCTGCGAGCAGCTCAAGACTATAGTCATGGCAACCAAGAT  
GGCCGCCCTCCATTACCCAGCACACGGCCCTGCAGGAAATGGTGCACCAAGTGACAGACCTTTCTAGAAATGC  
CCAGCTGTTCAAGCGCTCTTTGCTGGAGATGGCAACGTTCTGAGAAGAAAAAAGAGGAAGGGGACTGCGTTAA  
CGGTTACTAAGGAAAACTGGAAATACTGTCTGGTTTTTTGTAAATGTTATCTATTTTTGTAGATAATTTTATATAA  
AAATGAAATATTTTTAACATTTTATGGGTGAGACAACCTTTCAGAAATTCAGGGAGCTGGAGAGGGAAATCTTTTTT  
TCCCCCTGAGTGTTCTTATGTATACAGAAAGTATCTGAGACATAAACTGTACAGAAAACCTGTCCACGTCCTT  
TTGTATGCCCATGTATTCAIGTTTTTGTGTTGTAGATGTTTGTCTGATGCATTTTCAATAAAAAACCATGAAT  
TACGAAGCACCTTAGTAAGCACCTTCTAATGCTGCATTTTTTTTTGTTGTTGTTAAAAACATCCAGCTGGTTATAA  
TATTGTTCTCCACGTCCTTGTGATGATTCTGAGCCTGGCACTGGGAATCTGGGAAGCATAGTTTTATTGCAAGTG  
TTCACCTTCCAAATCATGAGGCATAGCATGACTTATTCTTGTGTTTTGAAAACTCTTTTCAAACTGACCATCTTAA  
ACACATGATGGCCAAGTGCCACAAAGCCCTCTTGCGGAGACATTTACGAATATATATGTGGATCCAAGTCTCGAT  
AGTTAGGCGTTGGAGGGAAGAGAGACCAGAGAGTTTAGAGGCCAGGACCACAGTTAGGATTGGGTTGTTTCAATA  
CTGAGAGACAGCTACAATAAAAGGAGAGCAATTGCCTCCCTGGGGCTGTTCAATCTTCTGCATTTGTGAGTGGTT  
CAGTCATGAGGTTTTTCAAAAGATGTTTTTAGAGTTGTAAAAACCATATTTGCAGCAAAGATTTACAAAGGCGTA  
TCAGACTATGATTGTTACCAAAAATAGGGGAATGGTTTGATCCGCCAGTTGCAAGTAGAGGCCTTTCTGACTCTT



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**FIGURE 186B**

AATATTCACTTTGGTGCTACTACCCCATACCTGAGGAACTGGCCAGGTCCTTGATCATGGAACATAGAGCTA  
CCAGACATATCCTGCTCTCTAAGGGAATTTATTGCTATCTTGACCTTCTTTAAACTCAAAAAACATATGCAGA  
CCTGACACTCAAGAGTGGCTAGCTACACAGAGTCCATCTAATTTTGGCAACTTCCCCCCCCGAATTC

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**FIGURE 187**

MKYKNLMARALYDNVPECAEELAFRKGDILTIVIEQNTGGLEGWWLCSLHGRQGIVPGNRVKLLIGPMQETASSHE  
QPASGLMQQTFFGQQKLYQVPNPQAAPRDTIYQVPPSYQNQGIYQVPTGHGTQEVEYQVPPSVQRSIGGTSGPHV  
GKKVITPVRTGHGYVYEYPSRYQKDVIDIPPSHTTQGVYDIPPSSAKGPVFSVPVGEIKPQGVYDIPPTKGVYAI  
PPSACRDEAGLREKDYDFPPPMRQAGRPDLRPEGVYDIPPTCTKPAGKDLHVKNCDIPGAAEPVARRHQSLSPN  
HPPPQLGQSVGSQNDAYDVPRGVQFLEPPAETSEKANPQERDGVYDVPLHNPPDAKGSRDLDGINRLSFSSTGS  
TRSNMSTSSTSSKESSLASPAQDKRLFLDPDTAIERLQRLQQALEMGVSSLMALVTTDWRCYGYMERHINEIRT  
AVDKVELFLKEYLHFVKGAVANAACLPELILHNKMKRELQRVEDSHQILSQTSHDLNECSWSLNLAINKPQNK  
DDLDRFVMVAKTVPDDAKQLTTTINTNAEALFRPGPSLHLKNGPESIMNSTEYPHGGSQGQLLHPGDHKAQAHN  
KALPPGLSKEQAPDCSSSDGSESWMDDYDYVHLQGKEEFERQQKELLEKENIMKQNMQLHHQLSQFQLEQE  
ITKPVENDISKWKPSQSLPTTNSGVSAQDRQLLCFYDQCETHFISLLNAIDALFSCVSSAQPPIRFVAHSKFVI  
LSAHKLVFIGDTLTRQVTAQDIRNKVMNSSLQCEQLKTIVMATKMAALHYPSTTALQEMVHQVTDLSRNAQLFK  
RSLLEMATF

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**FIGURE 188**

CGCAGGGACCGTGCTCCGCCGTCTCCGCCGCATCTTCCACCCTCGCCGCCGCCGAGCTCCCCGCGCTCGTGCCA  
CCGCCGCCGCGTCCACCCTCAGCGCCACCGCC**ATG**CGGGAGATCGTGACCTGCAGGCCGCCAGTGCGGCAACC  
AGATCGGGGCCAAGTTTGGGAGGTTATCAGTGACGAACATGGCATCGACCCACAGGCACATACCATGGGGACA  
GTGACCTGCAACTGGAGAGGATCAACGTGTACTACAACGAGGGCCACAGGAGGAAATTATGTCCCCAGAGCGGTGC  
TGGTGGACCTGGAACCCGGCACCATGGACTCTGTCCGTTCTGGCCCCCTTCGGTCAGATCTTTCGGCCGGACAAC  
TCGTGTTTGGCCAATCCGGAGCCGGCAACAACCTGGGCAAAGGGGCACTACACGGAGGGCGCAGAGCTGGTGGACG  
CTGTCTTGACGTAGTCCGGAAGGAGGCCGAGAGCTGCGACTGCCTTCAGGGCTTCAGCTGACCCACTCGCTGG  
GGGGTGGCACGGGGTCCGGAATGGGCACGCTGCTCATCAGTAAGATCCGCGAGGAGTTCAGACCGCATCATGA  
ACACCTTCAGCGTGGTGCCCTCGCCCAAAGTGTCAGACACGGTGGTGGAGCCCTACAACGCCACGCTGTCTGTGC  
ACCAGCTGGTGGAGAATACGGATGAGACCTACTGCATCGACAACGAGGCACTCTACGACATCTGTTTCCGCAACC  
TCAAGCTGACCACCCCCACCTACGGGGACCTCAACCACCTGGTGTGCGCCACCATGAGCGGGGTACCACCTGCC  
TGCCTTCCCGGGCCAGCTGAACGCCGACCTGCGCAAGCTGGCCGTCAACATGGTTCCTTTCCTCGCCTGCACT  
TCTTCATGCCCCGCTTCGCACCCCTGACCAGCCGGGGCAGCCAGCAGTACCGGGCCCTGACGGTGGCCGAGCTCA  
CCCAGCAGATGTTTCGATGCCAAGAACATGATGGCGGCGTGCGACCCGCGCCACGGCCGCTACCTGACCGTGGCCG  
CCGTGTTCCGGGGCCGCATGTCCATGAAGGAGGTGGACGAGCAGATGCTGAGCGTGACAGCAAGAACAGCAGCT  
ACTTCGTGGAGTGGATCCCCAACAACGTGAAGACGGCCGTGTGCGACATCCCGCCCCGCGGCCTGAAGATGGCCG  
CGACCTTCATCGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCATCTCCGAGCAGTTCACGGCCATGTTCC  
GGCGCAAGGCCTTCTTGCACTGGTACACGGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCCGAGAGCAACA  
TGAATGACCTGGTATCTGAGTACCAGCAGTACCAGGACGCCACGGCCGAGGAGGGCGAGTTCGAGGAGGAGGCGG  
AGGAGGAGGTGGCC**TAG**GCTGCTCCCATCGCTTCCACCTGTCCCCTCGAGGCTTCTGACCTTTGATCCGCTAGG  
CCCCCATCTCTGAACCCCTAGAGCCCCGCTTTCCTCCAAGGCTGACTCCCCGCTGACCCTAACAATACCTTTGG  
AGCTCGCTTTACCTCTGGCTACTTCACTCTCCGACCCTGGCTCCCCCTTTGAGCCCTAATTTATCTTTAACCCCTT  
GAGCTCTTCCAACCTTGACATTCCCAGGAGGAGCCCCGCTTCACCCCTTCTGACTCTGGAACCGCACCTTTAAC  
TTTGAGACCTTCCCTCACCCCTGACTTCTGCTTACCTTTGACCTCTGCCCCCATGAATCCCATTTTACCTCT  
AGACCTATAAGTTCTGTTTATGTTTGACCCCTCCCTCTGAGCTGCACTTCACCGCTGACCTGCCTCACCTTTA  
ACCCCCACCTGAGCCCCAGCTCCTACCTCTGACCCCACTTCTCTTTGATCTCTGAATCCCCTCTGACTCCAAC  
TTCTCTTTCACCCCTCTATGAGTCCCATTTTACTTCTACACCTGCAAGTCCTGGTTTATATTGGACCCCTCCCTCC  
GAGCTGCAGTTCACCTTTGACCTTGCCCTACCTTTACCCCCACCCCCACAGCGTCAGCTCCTACCTCTGACC  
CCAGCTTCTCTCTGATTCCACAGGCCCATGCATCTCCCTGCCTCACTCCCCTCAGCCCCTGCCGACCTTAGC  
TTATCTGGGAGAGAAACAAGGCCTGGTGCCTGTGAGGAAGAGAGGTCACCCCTACCCTCCCTCCCGCTTCCCTG  
CTCACCCCTCAATAAATAAATTAATTGTTGTATGGAACAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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## FIGURE 189

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLERINVYYNEATGGNYVPRAVLVDLEPGTMDS  
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDAVL DVVRKEAESCDCLQGFQLTHSLGGGTGSGMGTL  
LISKIREEFDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTPTTYGDL  
NHLVSATMSGVTTCLRFPQQLNADLRKLAVNMVFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMM  
AACDPRHGRYLTVA AVFRGRMSMKEVDEQMLSVQSKNSSYFVEWIPNNVKTAVCDIPPRGLKMAATFIGNSTAIQ  
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEGEFEEEEEEVA

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**FIGURE 190**

GGCACGAGGGAGAACTAGTCTCGATTTTTTTTTTTTTTTTTTTCTTTGTTTTGTTTTTCTGTATAAAAAAGGAC  
 CCCAAATATAAAGGTAGGGAAAGGGACAAGAGGGAACATACCCCTTAGTGTAGAGAAATGGGAAGGAGAAGGAGA  
 AGCCTCAAAAGGAGAGGTGGGAGGGGAATGTCATTAAGGCAGCAAAGTAATCTCTGTAGAAAGATGGAGGAGGAC  
 CCTCCATAGCCTCAGAGATAAAGGCAAAGATTGCCCTCTCAGTGTCCAGAAGGGAAATGGCAGCTTTTCTTCCTT  
 CCATGGCAGCCACTCCATTGCTCACTCCGGATTACCTTCATCCTTATGTAGATAAGAGTGCTGCAGAGCTCGAAA  
 GGCAGAGATTGCTTGTGTGGGTAAAAGTCAGCATTTCCAGCAGCAGCTGTGCTCCCGACTCCTCCATCTCAGG  
 TACCACCGACTGCACTGGGCGGGGCCCTCTGGGGGGAAAGGCTCCACGGGGCAGGGATACATCTCGAGGCCAGTC  
 ATCCTCTGGAGGCAGCCCAATCAGGTCAAAGATTTGCCCAACTGGTCGGCTTCAGAGTTTCCACAGAAGAGAGG  
 CTTTCGACGAAACATCTCTGCAAAGATACAGCCAACACTCCACATGTCCACAGGTGTTGCATATGTGGACTGCAG  
 AAGAACTTCGGGAGCTCGGTACCAGAGTGTAACAACACGGGTGTAAGTGCCATCTGGTAGCTGTAGATTCTGGC  
 CAGGCCAAAGTCAGCCAGCTTGACTGTTCCACCACTTGTCACCAGAATGTTCTCTGGCTTCAGATCTCGGTGAAC  
 GATGCAATTGGCATGAAGGAAATCTAGGCCTCTTAGAAACTGGCGCATCAGATCCTTGATCGTTTCGGCTGGCAA  
 GCCTGGTGGGGGTGCCTTGTCCAGATATGTCCTTAGGTCTGGTCTACATGCTCAAACACCAGGGTTACCTTGAT  
 CTCCCGGTCAGTTCGGGATGTGGCACAGACGTCCATCAGCCGGACAACATTGGGATGCTCAAAGCCTCCAGTCG  
 CCTCAGTAAAGCCACCTCACGAAGTGTGCTGATGGGAAGGCCTCCTCCACCTCCTCCTCCATTGGGGACTCTCAC  
 ACTCTTGAGGGCCACAAAGTGGCCACTGTGGGGATCACGGGCCTTGTAACACTGTCCCATAGGCACCGACACCAAT  
 TTCAGCCACTGGCTCATATCGAGAGGTAGCCATTCTCAGATCAAGGGAGACCCTCACGCCAGCCCGGGGTGCTGT  
 GGGGGCGGCCCGTTATCGGGGCCCGGAGCCGGTTCTACGGCCCCATACACCCGAGCTCGGTCCGGAGCAG

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**FIGURE 191**

MSTGVAYVDCRRTSGARYQSVTTTGVSIAW

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**FIGURE 192**

AGCTGAGGTGTGAGCAGCTGCCGAAGTCAGTTCCTTGTGGAGCCGGAGCTGGGCGCGGATTGCGCGAGGCACCGA  
GGCACTCAGAGGAGGTGAGAGAGCGGCGGCAGACAACAGGGGACCCCGGGCCGGCCAGAGCCGAGCCAAGC  
GTGCCCCGCGTGTGTCCCTGCGTGTCCGCGAGGATGCGTGTTCCGCGGTGTGTGCTGCGTTCACAGGTGTTTCTGC  
GGCAGGCGCC**ATGT**CAGAACCGGCTGGGGATGTCCGTCAAGAACCCATGCGGCAGCAAGGCCTGCCGCCGCCTCTT  
CGGCCCAGTGGACAGCGAGCAGCTGAGCCGCGACTGTGATGCGCTAATGGCGGGCTGCATCCAGGAGGCCCGTGA  
GCGATGGAACCTTCGACTTTGTACCGAGACACCACTGGAGGGTGACTTCGCCTGGGAGCGTGTGCGGGGCTTGG  
CCTGCCCAAGCTCTACCTTCCCACGGGGCCCCGGCGAGGCCGGGATGAGTTGGGAGGAGGCAGGCGGCCTGGCAC  
CTCACCTGCTCTGCTGCAGGGGACAGCAGAGGAAGACCATGTGGACCTGTCACTGTCTTGTACCCTTGTGCCTCG  
CTCAGGGGAGCAGGCTGAAGGGTCCCCAGGTGGACCTGGAGACTCTCAGGGTCGAAAACGGCGGCAGACCAGCAT  
GACAGATTTCTACCACTCCAAACGCCGGCTGATCTTCTCCAAGAGGAAGCCCT**TAA**TCCGCCACAGGAAGCCTGC  
AGTCCTGGAAGCGCGAGGGCCTCAAAGGCCCGCTCTACATCTTCTGCCTTAGTCTCAGTTTGTGTGTCTTAATTA  
TTATTTGTGTTTTAATTTAAACACCTCCTCATGTACATAACCTGGCCGCCCTTGCCCCCAGCCTCTGGCATT  
GAATTATTTAAACAAAACTAGGCGGTTGAATGAGAGGTTCCCTAAGAGTGCTGGGCATTTTTATTTATGAAATA  
CTATTTAAAGCCTCCTCATCCCGTGTCTCCTTTTCTCTCTCCCGAGGTTGGGTGGGCCGGCTTCATGCCAGC  
TACTTCTCTCTCCCACTTGTCCGCTGGGTGGTACCCTCTGGAGGGGTGTGGCTCCTTCCCATCGCTGTACAGG  
CGGTTATGAAATTACCCCTTTCTGGACACTCAGACCTGAATTCTTTTCATTTGAGAAGTAAACAGATGGCA  
CTTTGAAGGGGCCTCACCGAGTGGGGGCATCATAAAACTTTGGAGTCCCCTCACCTCCTCTAAGGTTGGGCAG  
GGTGACCCTGAAGTGAGCACAGCCTAGGGCTGAGCTGGGGACCTGGTACCCTCCTGGCTCTTGATACCCCTCT  
GTCTTGTGAAGGCAGGGGGAAGGTGGGGTCTGGAGCAGACCACCCCGCCTGCCCTCATGGCCCTCTGACCTGC  
ACTGGGGAGCCCGTCTCAGTGTGAGCCTTTTCCCTCTTTGGCTCCCCTGTACCTTTTGAGGAGCCCCAGCTACC  
CTTCTTCTCCAGCTGGGCTCTGCAATTCCCTCTGCTGCTGTCCCTCCCCCTTGCTCTTTCCCTTCAGTACCCTC  
TCAGCTCCAGGTGGCTCTGAGGTGCCTGTCCACCCCCACCCCCAGCTCAATGGACTGGAAGGGGAAGGGACACA  
CAAGAAGAAGGGCACCCCTAGTTCTACCTCAGGCAGCTCAAGCAGCGACCGCCCCCTCCTCTAGCTGTGGGGGTGA  
GGGTCCCATGTGGTGGCACAGGCCCTTGAGTGGGGTTATCTCTGTGTTAGGGGTATATGATGGGGGAGTAGAT  
CTTTCTAGGAGGGAGACACTGGCCCTCAAATCGTCCAGCGACCTTCCTCATCCACCCCATCCCTCCCCAGTTCA  
TTGCACTTTGATTAGCAGCGGAACAAGGAGTCAGACATTTTAAGATGGTGGCAGTAGAGGCTATGGACAGGGCAT  
GCCACGTGGGCTCATATGGGGCTGGGAGTAGTTGTCTTTCTGGCACTAACGTTGAGCCCCTGGAGGCACTGAAG  
TGCTTAGTGTACTTGGAGTATTGGGGTCTGACCCCAAACACCTTCCAGCTCCTGTAACTACTGGCCTGGACTGT  
TTTCTCTCGGCTCCCCATGTGTCTTGGTTCCCGTTTCTCCACCTAGACTGTAAACCTCTCAGGGGCAGGGACCAC  
ACCCTGTACTGTTCTGTGTCTTTCACAGCTCCTCCACAATGCTGAATATACAGCAGGTGCTCAATAAATGATTC  
TTAGTGACTTTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 193**

MSEPAGDVRQNPCGSKACRRLFGPVDSEQLSRDCDALMAGCIQEARERWNFDVFTETPLEGDFAWERVRLGLPK  
LYLPTGPRRGRDELGGRRPGTSPALLQGTAEDHVDLSLSCTLVPRSGEQAEGSPGGPGDSQGRKRRQTSMTDF  
YHSKRRLIFSKRKP



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**FIGURE 194**

GTGGAACCTCGATATTGGTGGTGTCCATCGTGGGCAGCGGACTAATAAAGGCC**ATG**GCGCCAGCAGAAATCCTGA  
ACGGAAGGAGATCTCCGCGCAAATAAGGGCGAGACTGAAAAATCAAGTCACTCAGTTGAAGGAGCAAGTACCTG  
GTTTCACACCACGCCTGGCAATATTACAGGTTGGCAACAGAGATGATTCCAATCTTTATATAAATGTGAAGCTGA  
AGGCTGCTGAAGAGATTGGGATCAAAGCCACTCACATTAAAGTTACCAAGAACAACCACAGAATCTGAGGTGATGA  
AGTACATTACATCTTTGAATGAAGACTCTACTGTACATGGGTTCTTAGTGCAGCTACCTTTAGATTACAGAGAATT  
CCATTAACTGAAGAAGTGATCAATGCTATTGCACCCGAGAAGGATGTGGATGGATTGACTAGCATCAATGCTG  
GGAGACTTGCTAGAGGTGACCTCAATGACTGTTTCATTCTTGTACGCCTAAGGGATGCTTGGAACTCATCAAG  
AGACAGGGGTGCCGATTGCCGGAAGGCATGCTGTGGTGGTTGGGCGCAGTAAAAATAGTTGGGGCCCCGATGCATG  
ACTTGCTTCTGTGGAACAATGCCACAGTGACCACCTGCCACTCCAAGACTGCCCATCTGGATGAGGAGGTAAATA  
AAGGTGACATCCTGGTGGTTGCAACTGGTCAGCCTGAAATGGTTAAAGGGGAGTGGATCAAACCTGGGGCAATAG  
TCATCGACTGTGGAATCAATTATGTCCAGATGATAAAAAACCAAATGGGAGAAAAGTTGTGGGTGATGTGGCAT  
ACGACGAGGCCAAAGAGAGGGCGAGCTTCATCACTCCTGTTCTGGCGGCGTAGGGCCCATGACAGTTGCAATGC  
TCATGCAGAGCACAGTAGAGAGTGCCAAGCGTTTCCTGGAGAAATTTAAGCCAGGAAAGTGGATGATTGAGTATA  
ACAACCTTAACCTCAAGACACCTGTTCCAAGTGACATTGATATATCACGATCTTGTAACCGAAGCCCATTGGTA  
AGCTGGCTCGAGAAATTGGTCTGCTGTCTGAAGAGGTAGAATTATATGGTGAAACAAAGGCCAAAGTTCTGCTGT  
CAGCACTAGAACGCCTGAAGCACCGGCCTGATGGGAAATACGTGGTGGTGACTGGAATAACTCCAACACCCCTGG  
GAGAAGGGAAAAGCACAACACTACAATCGGGCTAGTGCAAGCCCTTGGTGCCCATCTCTACCAGAATGTCTTTGCGT  
GTGTGCGACAGCCTTCTCAGGGCCCCACCTTTGGAATAAAAGGTGGCGCTGCAGGAGGCGGCTACTCCAGGTCA  
TTCCTATGGAAGAGTTAATCTCCACCTCACAGGTGACATCCATGCCATCACTGCAGCTAATAACCTCGTTGCTG  
CGGCCATTGATGCTCGGATATTTTCATGAACTGACCCAGACAGACAAGGCTCTCTTTAATCGTTTGGTGCCATCAG  
TAAATGGAGTGAGAAGGTTCTCTGACATCCAAATCCGAAGGTTAAAGAGACTAGGCATTGAAAAGACTGACCCTA  
CCACACTGACAGATGAAGAGATAAACAGATTTGCAAGATTGGACATTGATCCAGAAACCATAACTTGGCAAAGAG  
TGTTGGATACCAATGATAGATTCTTGAGGAAGATCACGATTGGACAGGCTCCAACGGAGAAGGGTCACACACGGA  
CGGCCCAGTTTGATATCTCTGTGGCCAGTGAAATTATGGCTGTCTGCTCACCCTTCTCTAGAAGACATGA  
GAGAGAGACTGGGCAAAATGGTGGTGGCATCCAGTAAGAAAGGAGAGCCCGTCAGTGCCGAAGATCTGGGGGTGA  
GTGGTGCAGTGACAGTGCTTATGAAGGACGCAATCAAGCCCAATCTCATGCAGACACTGGAGGGCACTCCAGTGT  
TTGTCCATGCTGGCCCGTTTGCCAACATCGCACATGGCAATTCCTCCATCATTGCAGACCAGATCGCACTCAAGC  
TTGTTGGCCAGAAAGGGTTTGTAGTGACGGAAGCAGGATTTGGAGCAGACATTGGAATGGAAAAGTTTTTTAACA  
TCAAATGCCGGTATTCCGGCCTCTGCCCCACGTGGTGGTGCTTGTGGCCACTGTCAGGGCTCTCAAGATGCACG  
GGGGCGGCCCCACGGTCACTGCTGGACTGCCTCTTCCCAAGGCTTACATACAGGAGAACCTGGAGCTGGTTGAAA  
AAGGCTTCAGTAACTTGAAGAAACAAATTGAAAATGCCAGAATGTTTGGAATTCAGTAGTAGTGCCCGTGAATG  
CATTCAAGACGGATACAGAGTCTGAGCTGGACCTCATCAGCCGCTTTCCAGAGAACATGGGGCTTTTGATGCCG  
TGAAGTGCACTCACTGGGCAGAAGGGGGCAAGGGTGCTTAGCCCTGGCTCAGGCCGTCCAGAGAGCAGCACAAAG  
CAGGAGCAGCTTCCAGCTCCTTTATGACCTCAAGCTCCAGTTGAGGATAAAATCAGGATCATTGCACAGAAGA  
TCTATGGAGCAGATGACATTGAATTACTTCCCGAAGCTCAACACAAAGCTGAAGTCTACACGAAGCAGGGCTTG  
GGAATCTCCCCATCTGCATGGCTAAAACACACTTGTCTTTGTCTCACAACCCAGAGCAAAAAGGTGTCCCTACAG  
GCTTCATTCTGCCCATTCGCGACATCCGCGCCAGCGTTGGGGCTGGTTTTCTGTACCCCTTAGTAGGAACGATGA  
GCACAATGCCTGGACTCCCCACCGGCCCTGTTTTTATGATATTGATTTGGAACCTGAAACAGAACAGGTGAATG  
GATTATTCT**TAA**ACAGATACCATCCATCTTCAAGAAGCTACTTTGAAAGTCTGGCCAGTGTCTATTACAGGCCAC  
TGGGAGTTAGGAAGTATAAGTAAGCCAAGAGAAGTCAGCCCTGCCAGAAAGATCTGAAACTAATAGTAGGAGTT  
TCCCCAGAAGTCATTTTACAGCTTAATTCTCATCATGTATAAATTAACATAAATCATGCATGTCTGTTTACTTTA  
GTGACGTTCCACAGAATAAAAGGAAACAAGTTTGC

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**FIGURE 195**

MAPAEILNGKEISAQIRARLKNQVTQLKEQVPGFTPRLAILQVGNRDDSNLYINVKLKAAEEIGIKATHIKLPRT  
TTESEVMKYITSLNEDSTVHGFLVQLPLDSENSINTEEVINAIPEKDVDGLTSINAGRLARGDLNDCFIPCTPK  
GCLELIKETGVPIAGRHAVVGRSKIIVGAPMHDLLLWNNATVTTCHSKTAHLDEEVNKGDIILVVATGQPEMVKGE  
WIKPGAIVIDCGINYVPDDKKPNGRKVVGDVAYDEAKERASFITPVPGGVGPMTVAMLMQSTVESAKRFLEKFKP  
GKWWIQYNNLNLKTPVPSDIDISRSCKPKPIGKLAREIGLLSEEVELYGETKAKVLLSALERLKHRPDGKYVVVT  
GITPTPLGEGKSTTTIGLVQALGAHLYQNVFACVRQPSQGPTFGIKGGAAGGGYSQVIPMEEFNLHLTGDIHAIT  
AANNLVAAIDARIFHELTQTDKALFNRLVPSVNGVRRFSDIQIRRLKRLGIEKTDPTTLTDEEINRFARLDIDP  
ETITWQRVLDTNDRFLRKITIGQAPTEKGHTRTAQFDISVASEIMAVLALTTSLEDMRERLGKMVVASSKKGEPV  
SAEDLGVSALTVMKDAIKPNLMQTLEGTPVFVHAGPFANIAHGNSIIADQIALKLVGPEGFVVTEAGFGADI  
GMEKFFNIKCRYSGLCPHVVLVATVRALKMHGGGPTVTAGLPLPKAYIQENLELVEKGFSNLKKQIENARMFGI  
PVVVAVNAFKTDTESELDLISRLSREHGAFDAVKCTHWAEGGKGALALAQAVQRAAQAPSSFQLLYDLKLPVEDK  
IRIIAQKIYGADDIELLPEAQHKAEVYTKQGFGNLPICMAKTHLSLSHNPEQKGVPTGFILPIRDIRASVGAGFL  
YPLVGTMTMPGLPTRPCFYDIDLDPETEQVNGLF

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**FIGURE 196**

CGCGATTCTCAGGGATTGATCCGCCTCTTCAGGTAAGTTATCTTCCGGCCCCGTACCACTGTGCCACAGGCGCAG  
 CCCGCTTCCTCAGGTGCCCTATCCCGCGCAGAAGACCACGGCTTCACAGAGTGTTATTTAAGGGCGTGCCAGCG  
 GAACATCCCGCCCCATTCTGTGACGCACGGGTGGCGCGCGTGGGACCCGAGGGGTGGGGCTGGGTTTAGTAGGA  
 GACCTGGGGCAAGGCCCCCTGTGGACGACCATCTGCCAGCTTCTCTCGTTCCGTTCGATTGGGAGGAGCGGTGGCG  
 ACCTCGGCCTTCAGTGTTTCCGACGGAGTGAATGGCGGCGGGCGGTGGGATGCTGCTGCTGGGCTTGCTGCAGGC  
 GGGTGGGTTCGGTGTGGGCCAGGCGATGGAGAAGGTGACAGGCGGCAACCTCTTGTCATGCTGCTGATCGCCTG  
 CGCCTTCACCCTCAGCCTGGTCTACCTGATCCGTCTGGCCGCCGGCCACCTGGTCCAGCTGCCCGCAGGGGTGAA  
 AAGTCTCCATACATTTTCTCCCCAATTCCATTCCCTTGGGCATGCCATAGCATTGGGAAAAAGTCCAATTGAATT  
 TCTAGAAAATGCATATGAGAAGTATGGACCTGTATTTAGTTTTTACCATGGTAGGCAAGACATTTACTTACCTTCT  
 GGGGAGTGATGCTGCTGCACTGCTTTTTAATAGTAAAAATGAAGACCTGAATGCAGAAGATGTCTACAGTCGCCT  
 GACAACACCTGTGTTTGGGAAGGGAGTTGCATACGATGTGCCTAATCCAGTTTTCTTGAGCAGAAGAAAATGTT  
 AAAAAGTGGCCTTAACATAGCCCACTTTAAACAGCATGTTTCTATAATTGAAAAAGAAACAAAGGAATACTTTGA  
 GAGTTGGGGAGAAAGTGGAGAAAAAAATGTGTTTGAAGCTCTTCTGAGCTCATAATTTTAAACAGCTAGCCATTG  
 TTTGCATGGAAAGGAAATCAGAAGTCAACTCAATGAAAAGGTAGCACAGCTGTATGCAGATTTGGATGGAGGTTT  
 CAGCCATGCAGCCTGGCTCTTACCAGGTTGGCTGCCTTTGCCTAGTTTCAGACGCAGGGACAGAGCTCATCGGGA  
 AATCAAGGATATTTTCTATAAGGCAATCCAGAAACGCAGACAGTCTCAAGAAAAAATGATGACATTCTCCAAAC  
 TTTACTAGATGCTACATACAAGGATGGGCGTCCTTTGACTGATGATGAAGTAGCAGGGATGCTTATTGGATTACT  
 CTTGGCAGGGCAGCATACTCTCAACTACTAGTGTCTGGATGGGCTTCTTTTTGGCCAGAGACAAAACACTTCA  
 AAAAAATGTTATTTAGAACAGAAAAACAGTCTGTGGAGAGAATCTGCCTCCTTTAACTTATGACCAGCTCAAGGA  
 TCTAAATTTACTTGATCGCTGTATAAAAAGAAACATTAAGACTTAGACCTCCTATAATGATCATGATGAGAATGGC  
 CAGAACTCCTCAGACTGTGGCAGGGTATACCATTCTCCAGGACATCAGGTGTGTGTTTCTCCCACTGTCAATCA  
 AAGACTTAAAGACTCATGGGTAGAACGCCTGGACTTTAATCCTGATCGCTACTTACAGGATAACCCAGCATCAGG  
 GGAAAAGTTTTGCCTATGTGCCATTGGAGCTGGGCGTCATCGTTGTATTGGGGAAAAATTTGCCTATGTTCAAAAT  
 TAAGACAATTTGGTCCACTATGCTTCGTTTATATGAATTTGATCTCATTGATGGATACTTTCCCACTGTGAATTA  
 TACAATATGATTACACCCCTGAGAACCCAGTTATCCGTTACAAACGAAGATCAAAATGAAAAAGGTTGCAAGG  
 AACGAATATATGTGATTATCACTGTAAGCCACAAAGGCATTTCGAAGAGAATGAAGTGACAAAACAACCTTTGTA  
 GTTTACTGTTTTTTTTAAGTGTGTAATTTCTAAAAGCCAGTTTATGATTTAGGATTTTGTTAACTGAATGGTTCTAT  
 CAAATATAATAGCATTTGACACATTTTCTAATAGTTATGATACTTATACATGTGCTTTCAGGAAGTTCCCTTGGTG  
 AAACAATTGTTGAGGGGGGATCTAGGTAATTGGCAGATTCTAAATAATATAATTTCCAGATAGTAATTTTAAAGAG  
 TACTCATCGCTCTTGCCAAATAAGTTCAGGGTATTCAAATCTTGGACTAGTCTGCAAGGTATAAAGAATAAAAA  
 TCCCAGTGAGATACTTGGAAACCACAGTTTATTATTATTTATCTGGGCAATTATTGTGTGTGTGAGGATGGAAGG  
 GTAGGGAATAATCGAACATCTAAAGCCTTGAATAAGAGAATACTAATTGTTTTGGTATGATGATACTCAGAAATG  
 GAGATATTATAGGAAAAAGAAATCCTTTGGAATTTTAACTAAAATCACTGCATATGGGAAATTAAGAGATCCAGG  
 ACCATATTTGATAAGAGTTTCTAAAAATAATGTAATTATTAATGCTAAAGACTGCTCATGTATCTTGATCTAATT  
 ACTAAATAAATTACATATTTATTTACCTGATAAATATGTATCTAGTTCTACAAGGTCACATTTATGTGGAAGTCC  
 AAAGTCAAGTCTTAGGGGATAATTTTGTGTTTGGGCTCAGTTGTTCCCTGCTTCTTTTTTTTTTTTTTTTTTTT  
 TTGAGATGGAGTCTCGCTCTGTTGCCAGGCTGGAGTGCAGTGGTGCATCTCAGCTCACTGCATCCTCTGCCTC  
 CCGGGTTCAAGCAATTCTCTGCCTCAGCCTCCCAAGTAGTTGGGATTACAGGCACCTGCCACCATGCCTGGCTAA  
 TTTTTTGATTTTTTAGTAGAGACGGGGGTTTCACTATGTTGGCTAGGCTGGTCTTGAACCTCTGAGCCTCGTGAG  
 TCCACCCGCCCTTGGCCTCCCAAAGTGCTGGGATTACAGGCATGAGCCACCGCACCTGGCCTTCCCTGCTTCTCT  
 CTAGAATCCAATTAGGGATGTTTGTACTACTCATATTGATTAAACAGTTAACAACTTTTTTCTTTTTTAAAT  
 GTGAGATCAGTGAACCTCTGGTTTTAAGATAATCTGAAACAAGGTCCTTGGGAGTAATAAAATTTGGTCACATTCTG  
 TAAAGCACATTCTGTTTAGGAATCAACTTATCTCAAATTGTAACCTCGGGCCTAACTATATGAGATGGCTGAAAA  
 AATACCACATCGTCTGTTTTCACTAGGTGATGCCAAATATTTTGCTTTATGTATATTACAGTTCTTTTTTAAAC  
 ACTGGAAGACTCATGTTAACTCTAATTGTGAAGGCAGAATCTCTGCTAATTTTTCAGATTAAAAATCTCTTTGA  
 AAAAAAT

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**FIGURE 197**

MAAAAGMLLLGLLQAGGSVLGQAMEKVTGGNLLSMLLIACAFTLSLVYLIRLAAGHLVQLPAGVKSPPIFSP  
FLGHAIAFGKSPIEFLENAYEKYGPVFSFTMVGKFTFTYLLGSDAAALLFNSKNEDLNAEDVYSRLTTPVFGKVA  
YDVPNPVFLEQKKMLKSGLNIAHFKQHVSIIKETKEYFESWGESGEKNVFEALSELIILTASHCLHGKEIRS  
NEKVAQLYADLDGGFSHAAWLLPGWLPLPSFRRRDRAHREIKDIFYKAIQRRQSQEKIDDILQTLLDATYKDGR  
PLTDDEVAGMLIGLLLAGQHTSSTTSAWMGFFLARDKTLQKKCYLEQKTVCGENLPPLTYDQLKDLNLLDRC  
TLRLRPPIMIMRMARTPQTVAGYTIPPGHQVCVSPTVNQRLKDSWVERLDFNPDRYLQDNPASGEKFAYVPFGA  
GRHRCIGENFAYVQIKTIWSTMLRLYEFDLIDGYFPTVNYTTMIHTPENPVIRYKRRSK

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**FIGURE 198**

TCGGGAAGCCATAGGGCGCCTCCCAGCCCGTCTCCCCGCTCCAGTTTAGAACCTAATTCCCAATTCCCGGACCGG  
GCCCAGCCCTGGGCTCTTACTGTCCGCTTTTGCTGGGACCTGTTCCACAAATGGGCGTCTTCTGCCTTGGGCCGT  
GGGGGTTGGGCCCGGAAGCTGCGGACGCCTGGGAAGGGCCGCTGCAGCTCTTGAGCCGCCTCTGCGGGGACCACT  
TGCAGGCCATCCCAGCCAAGAAGGCCCGGCTGGGCAGGAGGAGCCTGGGACGCCGCCCTCCTCGCCGCTGAGTG  
CCGAGCAGTTGGACCGGATCCAGAGGAACAAGGCCGCGGCCCTGCTCAGACTCGCGGCCCGCAACGTGCCCCTGG  
GCTTTGGAGAGAGCTGGAAGAAGCACCTCAGCGGGGAGTTCCGGGAAACCGTATTTTATCAAGCTAATGGGATTTG  
TTGCAGAAGAAAAGAAAGCATTACACTGTTTATCCACCCCCACACCAAGTCTTCACCTGGACCCAGATGTGTGACA  
TAAAAGATGTGAAGTTGTCTATCCTGGGACAGGATCCATATCATGGACCTAATCAAGCTCACGGGCTCTGCTTTA  
GTGTTCAAAGGCCTGTTCCGCCTCCGCCAGTTTGGAGAACATTTATAAAGAGTTGTCTACAGACATAGAGGATT  
TTGTTTCATCCTGGCCATGGAGATTTATCTGGGTGGGCCAAGCAAGGTGTTCTCTTCTCAACGCTGTCTCTACGG  
TTCGTGCCCATCAAGCCAACCTCTCATAAGGAGCGAGGCTGGGAGCAGTTCACTGATGCAGTTGTGTCTCTGGCTAA  
ATCAGAAGTGAATGGCCTTGTTTTCTTGCTCTGGGGCTCTTATGCTCAGAAGAAGGGCAGTGCCATTGATAGGA  
AGCGGCACCATGTACTACAGACGGCTCATCCCTCCCTTTGTCAGTGTATAGAGGGTCTTTGGATGTAGACACT  
TTTCAAAGACCAATGAGCTGCTGCAGAAGTCTGGCAAGAAGCCCATTGACTGGAAGGAGCTGTGATCATCAGCTG  
AGGGGTGGCCTTTGAGAAGCTGCTGTAAACGTATTTGCCAGTTACGAAGTCCACTGAAAATTTTCTTATTAATT  
CTTAAGTACTCTGCATAAGGGGGAAAAGCTTCCAGAAAGCAGCCATGAACCAGGCTGTCCAGGAATGGCAGCTGT  
ATCCAACCACAAACAACAAGGCTACCCTTTGACCAAATGTCTTTCTCTGCAACATGGCTTCGGCCTAAAATATG  
CAGAAGACAGATGAGGTCAAATACTCAGTTGGCTCTCTTTATCTCCCTTGCCCTTTATGGTGAAACAGGGGAGATG  
TGCACCTTTCAGGCACAGCCCTAGTTTGGCGCCTGCTGCTCCTTGGTTTTGCCTGGTTAGACTTTCAGTGACAGA  
TGTTGGGGTGTTTTTGTCTTAGAAAGGTCCCTTGTCTCAGCCTTGCAAGGCAGGCATGCCAGTCTCTGCCAGTTC  
CACTGCCCCCTTGATCTTTGAAGGAGTCCTCAGGCCCTCGCAGCATAAGGATGTTTTGCAACTTTCCAGAATCT  
GGCCAGAAATTAGGGCTCAATTTCTGATTGTAGTAGAGGTTAAGATTGCTGTGAGCTTTATCAGATAAGAGAC  
CGAGAGAAGTAAGCTGGGTCTTGTTATTCCTTGGGTGTTGGTGGAATAAGCAGTGGAATTTGAACAAGGAAGAGG  
AGAAAAGGGAATTTTGCTTTTATGGGGTGGGGTGATTTTCTCCTAGGGTTATGTCCAGTTGGGGTTTTTAAGGCA  
GCACAGACTGCCAAGTACTGTTTTTTTTTAACCGACTGAAATCACTTTGGGATATTTTTTCTGCAACACTGGAAA  
GTTTTAGTTTTTTAAGAAGTACTCATGCAGATATATATATATATATTTTTCCAGTCCTTTTTTTAAGAGACGGT  
CTTTATTGGGTCTGCACCTCCATCCTTGATCTTGTTAGCAATGCTGTTTTTGCTGTGTAGTCGGGTTAGAGTTGGC  
TCTACGCGAGGTTTGTTAATAAAAAGTTTGTTAAAAGTTTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 199**

MIGQKTLYSFFSPSPARKRHAPSPEPAVQGTGVAGVPEESGDAAAIPAKKAPAGQEEPSTPPSSPLSAEQLDRIQ  
RNKAAALLRLAARNVPVGFGEWKKHLSGEFGKPYFIKLMGFVAERKHYTVYPPPHQVFTWTQMCDIKDVKVI  
LGQDPYHGPNQAHGLCFVQRPVPPPSLENIYKELSTDIEDFVHPGHGDLGWAKQGVLLNAVLTVRAHQANS  
HKERGWEQFTDAVVSWLNQNSNGLVFLWGSYAQKKGSAIDRKRHHVLQTAHPSPLSVYRGFFGCRHFSKTNELL  
QKSGKKPIDWKEL

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**FIGURE 200**

ACCGCCGACGCAGACCCCTCTCTGCACGCCAGCCCGCCGCACCCACCATGGCCACAGTTCAGCAGCTGGAAGGA  
AGATGGCGCCTGGTGGACAGCAAAGGCTTTGATGAATACATGAAGGAGCTAGGAGTGGGAATAGCTTTGCGAAAA  
ATGGGCGCAATGGCCAAGCCAGATTGTATCATCACTTGTGATGGTAAAAACCTCACCATAAAAACTGAGAGCACT  
TTGAAAACAACACAGTTTTCTTGTACCCTGGGAGAGAAGTTTGAAGAAACCACAGCTGATGGCAGAAAACTCAG  
ACTGTCTGCAACTTTACAGATGGTGCATTGGTTCAGCATCAGGAGTGGGATGGGAAGGAAAGCACAATAACAAGA  
AAATTGAAAGATGGGAAATTAGTGGTGGAGTGTGTCATGAACAATGTCACCTGTACTCGGATCTATGAAAAAGTA  
GAATAAAAATTCCATCATCACTTTGGACAGGAGTTAATTAAGAGAATGACCAAGCTCAGTTCAATGAGCAAATCT  
CCATACTGTTTCTTTCTTTTTTTTTTTCATTACTGTGTTCAATTATCTTTATCATAAACATTTTACATGCAGCTAT  
TTCAAAGTGTGTTGGATTAATTAGGATCATCCCTTTGGTTAATAAAATAAATGTGTTTGTGCT

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**FIGURE 201**

MATVQQLGRWRLVDSKGFDEYMKELGVGIALRKMGAMAKPDCIITCDGKNLTIKTESTLKTTQFSCTLGEKFEE  
TTADGRKTQTVCNFTD GALVQH QEWDGKESTITRKLKDGKLVVECVMMNNVTCTRIYEKVE



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**FIGURE 202**

GGGACTACATTTCCAGGGGGCAGAGGCAGGGGCGGGAGGGGGCGGGCCCCGGCGCTGCTCCCGCCCCCTCCCCCG  
TGCTCGCGGGGAGAGGTAAACAAACCACGCGCGGGCTGCCC CGGGCACGGCGGGCGCGGCTGGCGCGGCTGGGGC  
GGCAGGGGCGGGGAGAGCGCGCCGAGCCGCGGGCCGAGCTGGCCCCGCCCGCCGTCGCACATGTTCCGGAACGGC  
GCCCCGGCCGTAGCCGCCTGCGGCGCCTCCTGTGCGGCCGAGAAGGGAGTGCGGAGAGGCGCCGGTCCGCCACCCGC  
GGTGGCCCATGGAGCGGGTGAAGATGATCAACGTGCAGCGTCTGCTGGAGGCTGCCGAGTTTTTGGAGCGCCGGGA  
GCGAGAGTGTGAACATGGCTACGCCTCTTCATTCCTGTCATGCCGAGCCCCCGACTGCAGCATTCAAAGCCCCC  
ACGGAGGTTGAGCCGGGCACAGAAACACAGCAGCGGGAGCAGCAACACCAGCACTGCCAACAGATCTACACACAA  
TGAGCTGGAAAAGAATCGACGAGCTCATCTGCGCCTTTGTTTAGAACGCTTAAAGTTCTGATTCCACTAGGACC  
AGACTGCACCCGGGCACACAACACTTGGTTTGCTCAACAAAGCCAAAGCACACATCAAGAACTTGAAGAAGCTGA  
AAGAAAAAGCCAGCACCAGCTCGAGAATTTGGAACGAGAACAGAGATTTTTAAAGTGGCGACTGGAACAGCTGCA  
GGGTCTCAGGAGATGGAACGAATACGAATGGACAGCATTGGATCAACTATTTCTTCAGATCGTTCTGATTGAGA  
GCGAGAGGAGATTGAAGTGGATGTTGAAAGCACAGAGTTCTCCCATGGAGAAAGTGGACAATATAAGTACCACCAG  
CATCAGTGACATTGATGACCACAGCAGCCTGCCGAGTATTGGGAGTGACGAGGGTTACTCCAGTGCCAGTGTCAA  
ACTTTTCACTTCACTTCACTAGAACCCAGCATGACATAACAGTGCAGGGCAAAATATTCACTGGGCCAATTCAATACA  
AACAATCTCTTAAATTGGGTTTCATGATGCAGTCTCCTCTTTAAACAAAACAAAACAAAACAAAACATACTTGA  
ACAAAAGGGTCAGAGGACCTGTATTTAAGCAAATACTTAGCAAAAAGTGGGGCAGAGCCTCCCAAGGAGAACAAA  
TATTGAGAATATTGATGAGGAAATCACAATTTTAAATGGCAGCAGAAAACCTGTGTGAAATTTTCTTGATTT  
GAGTTGATTGAGAAGAGGACATTGGAGATGCCATCCTCTTTCTCTTTCTAGTTTGCTCATACTACATTGAGTAG  
ACACATTTAAGGATGGGGTTATGAACCTTCTGAGCTTTATGGTCTTAAAGCAAAATAAAACTATTGCAATG  
AAAAGACAAGAAAATCAGGTATTAATCTTGGATAGCTAATAATGAGCTATTAAACTCAGCCTGGGACAGTTTAT  
CATGAAGCCTGTGGATGATCAATCCTTTATTATTATTTTTTTTTTTTGAAGGCTCATTTCATGCTCTGCAA  
AGGAGAGACTCCCATGAAGCCTTTTGAAGGGATCATCATGCAGCTCAACTTTCTGTTGGATTCCATGCTAAGCA  
AGCTAACCTTATCCTGCATTGTTAGCACTAGGCACCCAGCTGCCACCTCTCCATCCTGCTGCCCTTAGGCCACAT  
GGGAGCAGTCCATGCATGACAGCCTCTATCCTACAAGGCCTATGAGTATGGATTGGGGGGGCCAAAAGGAAAAAG  
CTCCATGTGCCTCTTTGTCTGCGTGGGTGAGAAGAGTTGTGCACGCAGATTAGCAGGCCAAGGTCTGAGCCACAG  
CAGCATTTTTTATTTGAGATTTTGATAACTGTTTATATGTGTTGAAAACCAAAATGACATCTTTTTAAAGCTTATC  
CATAAAAAAAATAGATGTCTTTTATAGTGGAACACATGGGGAAAAAAATCATCTATTTGATGCAGCATTT  
GATAATGATAAACACCTCACACCTCACTCTTTATAGTGACAAAAATGAATGAGGTCTGGGCTAGGTAGAAAAAG  
GGTCAATGCTATTTTGTGTTTGAATCATTACCTTTTACCAGCTTTTAAACCATCTGATATCTATAGTAGACACA  
CTATCATAGTTAACATAGTTAAGTTCAGCACTTGTCTCATTTTAAATGTAAAGATTGCTTCCATTTTCTACAGG  
CAGTCTCTCTCTTCTCACAGTCCCACTGTGCAGGTGCTATTGTTACTCTTACGAATATTTTCAGTAATGTTATT  
TTCTTCTAAGTGAAATTTCTAGCCTGCACTTTGATGTGATGTGTTCCCTTTGTCTTTCAAACCTCAAGGTTCCCC  
TGTGGCCCTCTCCCTTACCCTGGGAAGGCCTCTTGGAGACCTTACCCCTGGCTGTTTGGACTTTGTATACTTTAA  
ATAATTTAACTACCCTTAATTACTTAAAAAAGCTTTATGATTTTCATACTTATTGCTGATTTTAAAT  
GGATTGTTAATTTAGTCTGTAGTTTTATTTTATGTTTAGATAGGGCTGGGCAAGGAAAAAGAAAATAAGACA  
ACCATATTTAGCAGTGCA

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**FIGURE 203**

MERVKMINVQRLLEAAEFLERRERECEHGYASSFPSMPSPRLQHSKPPRRLSRAQKHSSGSSNTSTANRSTHNEL  
EKNRRHLRLCLERLKVLIPLGPDCTRHTTLGLLNKAKAHIKKLEEAERKSQHQLLENLEREQRFLKWRLEQLQGP  
QEMERIRMDSIGSTISSDRSDSEREEIEVDVESTEFSHGEVDNISTTSISDIDHSSLPSIGSDEGYSSASVKLS  
FTS

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**FIGURE 204A**

CGGTGCTGGAGAAGTTTGCCTGCGGTTTCGTGAGCGCAGGGTGCGGGCCCCGCCGGCCGCTGCGCGCCCGCTGCC  
**ATGGC**TTTCCGCAGGAGGACGAAAAGTTACCCGCTCTTCAGCCAGGAGTTTCGTATCCACAACCATGCGGACATC  
GGCTTCTGCCTGGTGTCTGCGTCCTCATCGGGCTTATGTTTCGAGGTCACAGCCAAGACTGCCTTTCTATTTATT  
TTACCTCAGTATAACATTAGCGTGCTACAGCAGACAGTGAGACCGTGCCTACCACTATGGCCCTAAGGACCTG  
GTCACAATCTTGTTCTACATCTTCATCACCATCATCTTGATGCTGTGGTTTCAGGAGTACATTTTAGATAAAAATC  
AGCAAACGGCTTCATCTCTCCAAAGTCAAAACACAGCAAGTTCAATGAATCTGGACAGCTGGTGCCTTTTCATTTC  
ACCTCGGTGATTTGGTGTCTTCTACGTGGTGGTGACGGAAGGATACTTAACAAACCCAAAGAAGCCTCTGGGAAGAC  
TACCCGCATGTGCACCTCCCCTTCCAGGTGAAGTTTTTCTACCTATGCCAGCTGGCCCTACTGGCTGCACGCACTT  
CCTGAGCTATACTTCCAGAAGGTACGGAAGGAGGAAATTCCTCCGCGCAGCTCCAGTATATTTGCCTGTACCTGGTG  
CATATAGCTGGAGCATACCTCTTAAACCTGAGCCGCTGGGCCTGATCTTGCTGCTGCTGCAGTACTCAACTGAG  
TTCCTCTTCCACACGGCTAGACTCTTCTACTTTGCAGATGAAAACAACGAGAAACTGTTTCAGTGCCTGGGCTGCT  
GTTTTTGGGGTTACCCGCTCTTCATCCTCACCTTGCCGTGCTGGCCATTGGCTTTGGACTGGCTCGCATGGAA  
AACCAGGCATTTGATCCCAGAAAGGGAACCTCAACACTTTGTTTTGCAGGCTCTGCGTGTGCTGCTGGTGTGT  
GCCGCCAGGCCTGGCTCATGTGGCGCTTCATCCACTCCAGCTGCGGCACTGGCGGGAATACTGGAATGAGCAG  
AGTGCAAAGCGGAGAGTCCCAGCCACACCCAGACTACCAGCCAGGCTCATCAAGAGGGAATCTGGTTACCATGAA  
AATGGAGTGGTGAAGGCAGAGAACGGAACCTCCCCACGGACTAAGAACTCAAGTCTCCCT**TAA**GGCCAAAGTGCT  
AAGAACAGGAATCCTCTTGGTGGGGGCCGAGCAGGGGGCAAGGAGCCAGGCCCTCCCTGCCTCCTCCTTCCT  
GCCTGTGATGCTCCGTCTCAAAACAGCCGAAACCTGTCTTGCAATGGGGGGAGGGGGCGTTTCGCTTTCTCTTCT  
TTGGCTTCTCTTATTCTTCCACAAACCATTTCTCAATAAAGCCAAAAATCTTTCTCTTCTCCCCCTCAGGCCAC  
CTCCTGTCTCTACTCCTGTCTGTGCTGGCTTTTCTGGAACGCCAGGCGCCCATGGCTGGCACCTTTCTGCTTGC  
TCTGTTTCTTGCTTATGGCTGCTGCTTTTCTTTTTACTTCTATTTTACCTTATCTTGCAATTTTTCTGTCT  
GATTTTTACAATGGGAGGGGAGCTAAGATTGCAGTCTGTCTTTCGGTCCCCCAGGGCTGCCGGTCAGAAGCCT  
GGGGCTGGTAGGCCCTTGGTGGTCCTCATGTGGATGGGCAAGAAGAGAGCGGCCATCTCGGATCATAATCTCCTT  
GGTGTGATTAAGTACGAGATATGATTCCAGTTCTGCATGTACCATCTTGAGGCACAGCAGCCACTGCTCGT  
TGTAATGCCAAGGCATTTGGCTTTGGGACGTGACAACCTCAATCCAGAAGGATGGTGTGAACCTCGGTTGGGTCCC  
GTGACTCGAGCTCCTACAGTGGCTGGCCGCGGATTGGAAGCCAGCCTGCTGTGCTCTGTGGGAGGACATGTC  
TTCCCACTGCTTAGAGCGAGAGCAGAGCAAACCTGCGCAGCAGGCACCTCCAGAAAGGTAATGGTGGCAGAACCCA  
CAGTGGAGTCGACCTAGGCCTTTCTCCAGCAGTCCCAGTCCGCACTTGCTTTTTCAGCCATTACAAGCATTCAAA  
ACCAAACCAAACAGCAGTTTATATACCTGCCTGAGATAGGCTGGTCTCACCTCCAGAGCCAGCCAGCCCCGTCA  
GGGGCCAAACTTACTACCTTGACTTCATCTCTAGCTGCAGAAACACTAAGTCTCAAGGGCTTCAGCCCCATGCTG  
GTCCCTTGGTGTTCAGGGAGGGTCACTTGGACCGCTGTTCATCTGGCCGCCCTTGTGAGTGTCTTTGGAATTG  
TCGTTTTTTGAGCACAACCTACAGCATTTTAGACTGCATGAAACCATGACTGACTGAGAGTCACTCTCTGGGTAGA  
TGATAGGCGCCTTTCTGGCCCCCTCCCTCACAGATTCTTTCCCTCCCTCCACCTGAAGAGAAGGCCTCCAAGT  
CCTTTTGGTGCCTTGTGAGGACTTTTAGAAGGGGCGTTTCAGCTTTAAAAGCCGGTCTTAATTACGGCCGGACGC  
AGTAGCTTACGCCTGTTATCCCAGCACTTTGGGAGGTCGAGGTGGGCAGATCACCTGAGGTAGGAGTTCAAGAC  
CAGCCTGGCCAACATGGTGAAACCCCATCTCTACTAAAAATACAAAAAATTAGGTGTAGTGGCAGGCACCTGTAA  
TCCCAGCTACTCGGGAGGCTGAGGCAGGAGAATCGCTTGAACCTAGAAGGTGGAGGTTGCAGTGAGCGGAGATTG  
TACCATGGCACTCCAGCCTGGACAACAAGAGCGAAATTCTGTCTAAAAAACAAGTCCCAATTAAGAACCTCC  
GAACTCTGTTTTGAGGCAAAGGGGAGTAGTTCTTGGTAGGTGCAGGAATAGTAGTGTCAATTTGGAATACTGGTCA  
TCTTCTGACATCACAGTAGAAACCAACCTTGGATTTAGATTCAAAAGGGGGGAAATGGGTCTTTTCATCAAGG  
CAACTCCCCTTCTCCAAGTCACTTACATCATAGATAAATTTTAGCTTCCCAGTAACCTGAGGGATTGTTTTCTAA  
CGCCATTGGAGGCCTTCATCCCTCTCTACGATAAGGTTGCAGAAATGGGAAGAGCTACCCGTGGTTGCTTTTGAT  
TACCCTTAGGAAGTGAGACAGTGTTTTTGAAAATATGTATTTCTCCATTTCTCCCTCTCCTTCCCTGACACTTC  
TCTGGGCTGCACAGCAGAAACGTTGGTAAAAGGGCAGTTTGGTTTTCAACACAGCAGACCTGATATGGGATCCCTT  
AGCCACTTTAGTCAAACAGCCCTGACAGAGTCTATAATTGAGTTTCAGGCCCCCACCTTGCTTAATAACTGCAAA  
TCGCATGTTTCAGCCAGCAGCCTCCTAAGCCACCTTCTCCCCATTAGAGAACACCCATCCTAGGTGCTCTCCA  
GGCTGTGTCAATTGGCAGGGCTTCACATGCAGGAGGCCTCTCTCAGGTGAGTCCAGGTTAAACTGTTGAGTTGTGG  
CTTCAACAGATATGTATGGCATGCTGGGATGTGCCAGGTGCCTGCGTTGTGCCAGTTGCTGGAGAGGTAGTGTGA

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**FIGURE 204B**

GCAGAGCAGCTGAAATCTTGCCATCAAGCAACCCTCATTCTCATGCCTGTAGGTTTCCATTGCTCTGTCCCAGGA  
CACTTGCGTGCCAGAGACGCCACAACCTTCATGTCCCTGTCTCTTGCAAGCTCCCCGTGCTGCCAGTACTTCATGC  
CTTGATGTGGTCCCACCAGCCAGTGGCTGGGGTCAGCTTAGGCTCTGCTTCCCAGTGGACGGGTGTGCTAAGG  
GTTTATTTTATGTAAAAAACAACCAAAACCCCTGAGACCATGAGTGGGGCTGGCATCTTGCCAGC  
CTGGGCTTCAGGGATGTTTGGGGGGGGTGGTTAGAGGGTAGTTGTAGGGTACTTTGTACCCCCCTCCCCCTGCC  
ACCCTCCCTGGCACGTTTATTTACAGCAGAGCCAAGTCTGTGGCAGGTTGACACAGACTGTGTTGCCAGAGCTG  
AAATAATTCCACTTCATCCTATGAGCGTGTGGGGCTAGCTTGTTCTAATTTTGCCCACTTTGGCTGTTTTCTTCA  
GTTTTATGCATTCTCTCTGCCCCAAAGTGCCAAGCCATTTGTGAAGGCTCTGCCAGACACCTCCAAGCTTGAGA  
GCTCAGCACCATGCACCAAGAGCAGGAGAAAAGACGTAAACCTACCCAGCAACTGTGGCCTCTCGACAGCCCTG  
GCTAACTAACTTACATTTGTGGGAAGCCAACAGACACAGCAGGAGGAGAGGGAGGTGGCGCTGGTGGACCAAGG  
ATCTGTGCTACCCGCTCCCCCTCTTGAGGTGCAGTGATGATGGGAGTTATTTTACCATCCGGGCGCTGATAGC  
TGCACTATTAATAAATTGCATGTGTTCTTTTGAAGGTAGGGGATGGTTCTGGGTGAGAGGGGAGCAGGCTGAGC  
CGGCGGGGGATCTGCTGTCTCCTTTTGTAGTCAGTTCTAATCCCATGTGTGTCTGGGCCACCAGACCGAAATGG  
TTGCTGAGAACTTGTCTGTTCATGTCCCAAGGCATAACTTCCCAACATTTAAGAAACCCCAATAGACACCTCTG  
CCCTGGCCACGTTACAGATCCTTCTTGTACCGGAAACCCTGGGACCCTAAGAACCCTGAAGCTTGGGGTGGG  
TGTGTGCTTCTGGGGTCTCTTTTGGGACCTCCTTTGTGAGTACCCCTTCTTTTTTCTAAGCAGCTAATAAGAGGT  
TGGGTGAAAGAGTGATCTCCTCCCAGGATTCCACAACAAAATTCTTATCTTCCATGGATGCTTTAATTGGAAGT  
GGGTTGCCGACCCCTTGTGCCAGAAAAGGCCTTTGCTTGGGTTTCTTTGTATGCTTCAGCCTTCTAGTTGG  
TTTTTCTAGGCCTGGTGTGAGAGGTAGGGAAGTCTGCACATAACTAATTCTTTTGTCTAAGGGCCTATGGCACA  
GTGCACAACTTCAATTCTTGATGTTCTAAGCTCTCTCTCTAACAGAGGGAGTGCTGAAAGCTTTTGAGTCAAG  
ACAATGGAGTGCTCTTCTCCTCACTCTGCCTTCCGAGCTTATGGTTCTTTTCTCAGGAGAGGATTTTCAGGA  
TTATTGGAGGATTAGGTCATTGTGATGACTGGAAAACCTAAATAGGATCTCTCTCCAGCTCAAGGTTGTCCCA  
GTGAGGAAGACTTTACCAACTTCTCACTCTACCCCACTACTCACATGAGTGTTAGCTCCACCTTGCAAAGGCTGA  
AGACCAGTTCTCCCCAGTGAAAGCTGCCTCATTCTTTTATGGAGTTCCCTGGAGTGCCAGAGCTATAAAGACGAG  
CATTGGGATTTGCAGTCTCCATGTAGCCTTTTCGTGCTTGGCAACCCCTGTAGACTTTTTGTCCCAAGCAGATTGC  
GTGCGTGCGCCTGTGTGTGAGAATAAGTGCCTTACTTTGCTGTGTGGTTTTCAACTTGTACTCCGTGGCCAGCCC  
CCAGTTGCCAGGGCTCGACGGCAGCCAAGGACACCATACTCAGTATAGTTATATATAAAATGGACACGGATTGT  
GACAGTTTACCCCATTTGTTTCTAACCCTGCTGCCAGGATTAGGGTCTGTGGTGTGTTCTGTTTTGTTTTGG  
TTTCTCCCTTGTGTGAGTTCTTCTTGGCCAGCTGGGTGGCTGTGGAAGTCTGTGAGGTGGCCCAACCACAAGC  
ATACCTATTAAGAGAAGCCCAGAGCTTCCAGCCCCACTTCGAAAACCTCTCCTCTGGCCCCACATAGCAAACCTCC  
TTCTCCGTTATTTTCCCCACCCCAAGATTTTTTTTAAAGGCCCACTTGCCATAACCTCTTTTGGTCTATTTTGC  
TTCCCATTCAGCCCAAAGTTTATATGATAAAGGTGTTTACTTTTACTTCCCAGTCTCCAAGTGCTAACACATAAA  
CACATACATGTCTGACTGTTGCAGAACTGTTTCGAGCTCCTAATTCAGTGTTACCTTGTTTTAGTCGCAGCAACCC  
TCTCCCCTACCCCTTGCCCGCCACGTTTTTCTCACTCTTCCGGGTGTGCAATAACTCTCCCAGCCAGTGGTCC  
TTTCCACAGCCTTTCTGTCCCTTAAACACCTGCAACTGGGGGAGAAATGGGACCCATGGGAGGGGGAGTCATCA  
TCCCTTACACAAGAAATAGCCACTTTCCTTTTGTGTGCTATTCTTGTGATCCTGGGTGGGTTTCTGTGGCACTCTT  
TTAGAACATGTAGCATCATCTTAGAGGTCTATTTTTTAAAAAATGTGTTGAAGAGGAAAAAACCATTCTCACGATG  
GGGCTTAAGTCATTGTCCAGGAATAAGATTGGCGTGGTGCCATGACATCACCGTCACTCTGCCTAAAAGCACTC  
TAGAGCTACTTGTTTCAGTGAGAGGAAGGATATTTTGCAGCAACAGCCGAGGTGGAGAGCCCTGTTTACCT  
GATAGGGTCTAGCTGTGACAGTAAATATAATACCGCTGTTTCTTGGGTACAGATTTGAGTGTTTCATGTGATGAG  
ACTGTAAACCTCATTTTTTTCGGTTTCTGTTTAAAAAACATCTGAAGGATGAACTAAGGCTGCTGGTGCCCTGA  
GCAACTGATAATGCAAATGTGGACAAAGTGTCTGTTTTTCTACTCTAGCCTGTTTCATATGGACCAATTTCAACAA  
GGAACCAAGGAAAATTTGTACCTGCCGTATTTATGCTTTTCATGTAAAAAAGGGTTGGGGGGAGGGGTGTCTTTT  
TGCTTTTGGTGAACTTTTTTTCAAAATCATTTTTTCCACTGTTTCTGTCTGGTTTTTAAACAAATTACAGTTTTGT  
ATGGATTTTTTAAATGTACATTTTGAACAAATGATCAAATATTTTCTGAAATAACAATAAAAGGCAGAAAATT

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**FIGURE 205**

MAFRRRTKSYPLFSQEFVIHNSHADIGFCLVLCVLIGLMFEVTAKTAFLFILPQYNISVPTADSETVHYHYGPKDL  
VTILFYIFITIIILHAVVQEYILDKISKRLHLSKVHSHKFNESGQLVVFHFTSVIWCIFYVVTEGYLTNPRSLWED  
YPHVHLPPQVKFFYLCQLAYWLHALPELYFQKVRKEEIPRQLQYICLYLVHIAGAYLLNLSRLGLILLLLQYSTE  
FLFHTARLFYFADENNEKLSAWAAVFGVTRLFILTLAVLAIGFGLARMENQAFDPEKGNFNTLFCRLCVLLLLVC  
AAQAWLMWRFIHSQLRHWREYWNEQSAKRRVPATPRLPARLIKRESGYHENGVVKAENGTSPTTKKLKSP

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**FIGURE 206**

AAAACAGCCGGGGCTCCAGCGGGAGAACGATAAATGC<sup>1</sup>AAAGTGCTATGTTCTTGGCTGTTCAACACGACTGCAGAC  
CCATGGACAAGAGCGCAGGCAGTGCCACAAGAGCGAGGAGAAGCGAGAAAAGATGAAACGGACCCTTTTAAAAG  
ATTGGAAGACCCGTTTGAGCTACTTCTTACAAAATTCCTCTACTCCTGGGAAGCCCCAAAACCGGC<sup>2</sup>AAAAAAGCA  
AACAGCAAGCTTTCATCAAGCCTTCTCCTGAGGAAGCACAGCTGTGGTCAGAAGCATTGACGAGCTGCTAGCCA  
GCAAATATGGTCTTGCTGCATTCAAGGGCTTTTTTAAAGTCGGAATTCTGTGAAGAAAATATTGAATTCTGGCTGG  
CCTGTGAAGACTTCAAAAAAACCAATCACCCCAAAGCTGTCCTCAAAGCAAGGAAAATATATACTGACTTCA  
TAGAAAAGGAAGCTCCAAAAGAGATAAACATAGATTTTCAAACCAAACCTCTGATTGCCCAGAATATACAAGAAG  
CTACAAGTGGCTGCTTTACAACCTGCCCAGAAAAGGGTATACAGCTTGATGGAGAACAACCTTATCCTCGTTTCT  
TGGAGTCAGAATTCTACCAGGACTTGTGTAAAAAGCCACAAATCACACAGAGCCTCATGCTACATGA<sup>3</sup>AATGTAA  
AAGGGAGCCCAGAAATGGAGGACATTTCATTCTTTTCTGAGGGGAAGGACTGTGACCTGCCATAAAGACTGAC  
CTTGAATTCAGCCTGGGTGTTTCAAGAAACATCACTCAGAACTATTGATTCAAAGTTGGGTAGTGAATCAGGAAGC  
CAGTAACTGACTAGGAGAAGCTGGTATCAGAACAGCTTCCCTCACTGTGTACAGAACGCAAGAAGGGAATAGGTG  
GTC<sup>4</sup>TGAACGTGGTGTCTCACTCTGAAAAGCAGGAATGTAAGATGATGAAAGAGACAATGTAATACTGTTGGTCCA  
AAAGCATTTAAAATCAATAGATCTGGGATTATGTGGCCTTAGGTAGCTGGTTGTACATCTTTCCCTAAATCGATC  
CATGTTACCACATAGTAGTTT<sup>5</sup>AGTTTAGGATTCAGTAACAGTGAAGTGTTTACTATGTGCAAGGGTATTGAAGT  
TCTTATGACCACAGATCATCAGTACTGTTGTCTCATGTAATGCTAAAAC<sup>6</sup>TGAAATGGTCCGTGTTTGCATTGTTA  
AAAATGATGTGTGAAATAGAATGAGTGCTATGGTGTGAAAAC<sup>7</sup>GCAGTGTCCGTTATGAGTGCCAAAATCTGT  
CTTGAAGGCAGCTACACTTTGAAGTGGTCTTTGAATACTTTAATAAATTTATTTTGATAAATAATATTG

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**FIGURE 207**

MQSAMFLAVQHDCRPMDKSAGSGHKSEEKREKMKRTLLKDWKTRL SYFLQNSSTPGKPKTGKKSKQQAFIKPSPE  
EAQLWSEAFDELLASKYGLAAFRFLKSEFCEENIEFWLACEDFKKTKSPQKLSSKARKIYTD FIEKEAPKEINI  
DFQTKTLIAQNIQEATSGCFTTAQKRVYSLMENNSYPRFLESEFYQDLCKKPQITTEPHAT

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**FIGURE 208**

CTGCTCGCGGCCGCCACCGCCGGGCCCCGGCCGTCCCTGGCTCCCCCTCCTGCCTCGAGAAGGGCAGGGCTTCTCA  
GAGGCTTGGCGGGAAAAAGAACGGAGGGAGGGATCGCGCTGAGTATAAAAGCCGGTTTTTCGGGGCTTTATCTAA  
CTCGCTGTAGTAATTCCAGCGAGAGGCAGAGGGAGCGAGCGGGCGGCCGGCTAGGGTGGAAGAGCCGGGCGAGCA  
GAGCTGCGCTGCGGGCGTCTTGGGAAGGGAGATCCGGAGCGAATAGGGGGCTTCGCCTCTGGCCCAGCCCTCCCG  
CTTGATCCCCCAGGCCAGCGGTCCGCAACCCTTGCCGCATCCACGAACTTTGCCCATAGCAGCGGGCGGGCACT  
TTGCACTGGAAC TTACAACACCCGAGCAAGGACGCGACTCTCCCGACGCGGGGAGGCTATTCTGCCCATTG GGG  
ACACTTCCCCCGCGCTGCCAGGACCCGCTTCTCTGAAAGGCTCTCCTTGACAGTGTCTTAGACGCTGGATTTTTTT  
CGGGTAGTGGAACACAGCAGCCTCCCGCGACG**ATG**CCCCCTCAACGTTAGCTTCACCAACAGGAACATGACCTC  
GACTACGACTCGGTGCAGCCGTAATTTCTACTGCGACGAGGAGGAGAACTTCTACCAGCAGCAGCAGCAGAGCGAG  
CTGCAGCCCCCGCGCGCCAGCGAGGATATCTGGAAGAAATTCGAGCTGCTGCCACCCCGCCCCCTGTCCCCTAGC  
CGCCGCTCCGGGCTCTGCTCGCCCTCCTACGTTGCGGTACACCCCTTCTCCCTTCGGGGAGACAACGACGGCGGT  
GGCGGGAGCTTCTCCACGGCCGACCAGCTGGAGATGGTGACCGAGCTGCTGGGAGGAGACATGGTGAACAGAGT  
TTCATCTGCGACCCGGACGACGAGACCTTCATCAAAAACATCATCATCCAGGACTGTATGTGGAGCGGCTTCTCG  
GCCGCCGCAAGCTCGTCTCAGAGAAGCTGGCCTCCTACCAGGCTGCGCGCAAAGACAGCGGCAGCCCCGAACCCC  
GCCCCGCGCCACAGCGTCTGCTCCACCTCCAGCTTGTAACCTGCAGGATCTGAGCGCCGCCGCCTCAGAGTGCATC  
GACCCCTCGGTGGTCTTCCCTTACCCTCTCAACGACAGCAGCTCGCCCAAGTCTGCGCCTCGCAAGACTCCAGC  
GCCTTCTCTCCGTCTCGGATTCTCTGCTCTCCTCGACGGAGTCTCCCGCAGGGCAGCCCCGAGCCCCCTGGTG  
CTCCATGAGGAGACACCGCCCACCACCAGCAGCGACTCTGAGGAGGAACAAGAAGATGAGGAAGAAATCGATGTT  
GTTTCTGTGGAAAAGAGGCAGGCTCCTGGCAAAAGGTCAGAGTCTGGATCACCTTCTGCTGGAGGCCACAGCAAA  
CCTCCTCACAGCCCACTGGTCCTCAAGAGGTGCCACGTCTCCACACATCAGCACAACTACGCAGCGCCTCCCTCC  
ACTCGGAAGGACTATCCTGCTGCCAAGAGGGTCAAGTTGGACAGTGTGAGAGTCTGAGACAGATCAGCAACAAC  
CGAAAAATGCACCAGCCCCAGGTCTCGGACACCGAGGAGAAATGTCAAGAGGCGAACACACAACGTCTTGGAGCGC  
CAGAGGAGGAACGAGCTAAAACGGAGCTTTTTTGGCCCTGCGTGACCAGATCCCGGAGTTGGAAAACAATGAAAAG  
GCCCCCAAGGTAGTTATCCTTAAAAAAGCCACAGCATAACATCCTGTCCGTCCAAGCAGAGGAGCAAAAGCTCATT  
TCTGAAGAGGACTTGTTGCGGAAACGACGAGAACAGTTGAAACACAACTTGAACAGCTACGGAACCTTGTGCG  
**TAAG**GAAAAGTAAGGAAAACGATTCTTCTAACAGAAATGTCCTGAGCAATCACCTATGAACTTGTTTCAAATGC  
ATGATCAAATGCAACCTCACAACTTGGCTGAGTCTTGAGACTGAAAGATTTAGCCATAATGTAAACTGCCTCAA  
ATTGGACTTTGGGCATAAAAGAACTTTTTTATGCTTACCATCTTTTTTTTTTCTTTAACAGATTTGTATTTAAGA  
ATTGTTTTTAAAAAATTTTAA



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**FIGURE 209**

MPLNVSFTNRNYDL DYDSVQPYFYCDEEENFYQQQQSELQPPAPSEDIWKKFELLPTPPLSPSRRSGLCSPSYV  
AVTPFSLRGDNDGGGGSFSTADQLEMVTELLGGDMVNQSFICDPDDETFIKNII IQDCMWSGFSAAKLVSEKLA  
SYQAARKDSGSPNFPARGHSVCSTSSLYLQDL SAAASECIDPSVVFPYPLNDSSSPKSCASQDSSAFSPSSDSLLS  
STESSPQGSPEPLVLHEETPPTTSSDSEEEQEDEEEIDVVSVEKRQAPGKRSESGSPSAGGH SKPPHSPLVLKRC  
HVSTHQHNYAAPPSTRKDYPAAKRVKLDSVRVLRQISNNRKCTSPRSSDTEENVKRRTHNVLERQRRNELKRSFF  
ALRDQIPELENNEKAPKVVLKKATAYILSVQAEQKLISEEDLLRKRREQLKHKLEQLRNSCA

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**FIGURE 210**

GGCAGGCATGGGAGCCGCGCGCTCTCTCCCGGCGCCACACCTGTCTGAGCGGCGCAGCGAGCCGCGGCCCGGGC  
GGGCTGCTCGGCGCGGAACAGTGCTCGGCATGGCAGGGATTCCAGGGCTCCTCTTCTTCTTCTTTCTGCTCT  
GTGCTGTTGGGCAAGTGAGCCCTTACAGTGCCCCCTGGAAACCCACTTGGCCTGCATACCGCCTCCCTGTCTCT  
TGCCCCAGTCTACCCCTCAATTTAGCCAAGCCAGACTTTGGAGCCGAAGCCAAATTAGAAGTATCTTCTTCATGTG  
GACCCCAAGTGTCTATAAGGGAACCTCACTGCCCACCTACGAAGAGGCCAAGCAATATCTGTCTTATGAAACGCTCT  
ATGCCAATGGCAGCCGCACAGAGACGCAGGTGGGCATCTACATCCTCAGCAGTAGTGGAGATGGGGCCCAACACC  
GAGACTCAGGGTCTTCAGGAAAGTCTCGAAGGAAGCGGCAGATTTATGGCTATGACAGCAGGTTTCAACATTTTG  
GGAAGGACTTCTGCTCAACTACCCCTTCTCAACATCAGTGAAGTTATCCACGGGCTGCACCGGCACCCTGGTGG  
CAGAGAAGCATGTCCTCACAGCTGCCCACCTGCATACAGATGGAAAAACCTATGTGAAAGGAACCCAGAAGCTTC  
GAGTGGGCTTCTTAAAGCCCAAGTTTAAAGATGGTGGTTCGAGGGGGCCAAACGACTCCACTTCAGCCATGCCCCGAGC  
AGATGAAATTTCACTGGATCCGGGTGAAACGCACCCATGTGCCCAAGGGTTGGATCAAGGGCAATGCCAATGACA  
TCGGCATGGATTATGATTATGCCCTCCTGGAACCTCAAAAAGCCCCACAAGAGAAAATTTATGAAGATTGGGGTGA  
GCCCTCCTGCTAAGCAGTGCCAGGGGGCAGAATTCACCTTCTCTGGTTATGACAATGACCGACCAGGCAATTTGG  
TGTATCGCTTCTGTGACGTCAAAGACGAGACCTATGACTTGCTCTACCAGCAATGCGATGCCCAGCCAGGGGGCCA  
GCGGGTCTGGGGTCTATGTGAGGATGTGGAAGAGACAGCAGCAGAAGTGGGAGCGAAAAATTATTGGCATTTTTTT  
CAGGGCACCAAGTGGGTGGACATGAATGGTTCCCCACAGGATTTCAACGTGGCTGTCAGAATCACTCCTCTCAAA  
ATGCCCAGATTTGCTATTGGATTAAAGGAACTACCTGGATTGTAGGGAGGGGTGACACAGTGTTCCTCCTGGC  
AGCAATTAAGGGTCTTCATGTTCTTATTTTAGGAGAGGCCAAATTGTTTTTTGTCATTGGCGTGACACGTGTGT  
GTGTGTGTGTGTGTGTGTGTAAAGGTGTCTTATAATCTTTTACCTATTTCTTACAATTGCAAGATGACTGGCTTTA  
CTATTTGAAAACCTGGTTTGTGTATCATATCATATATCATTTAAGCAGTTTGAAGGCATACTTTTGCATAGAAATA  
AAAAAATACTGATTTGGGGCAATGAGGAATATTTGACAATTAAGTTAATCTTCACGTTTTTGCAAACCTTTGATT  
TTTATTTTCTGAACTTGTTCAAAGATTTATATTAAATATTTGGCATACAAGAGATATGA

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**FIGURE 211**

MAGIPGLLFLFFLLCAVGQVSPYSAPWKPTWPAYRLPVVLPQSTLNLAKPDFGAEAKLEVSSSCGPQCHKGTPL  
PTYEEAKQYLSYETLYANGSRTETQVGIIYLSSSGDGAQHRDSGSSGKSRRKRQIYGYDSRFSIFGKDFLLNYPF  
STSVKLSTGCTGTLVAEKHVLTAAHCIHDGKTYVKGTQKLRVGFLKPKFKDGGRGANDSTSAMPEQMKFQWIRVK  
RTHVPKGWIKGNANDIGMDYDYALLELKKPHKRKFMKIGVSPPAKQLPGGRIHFSGYDNDRPGNLVYRFCDVKDE  
TYDLLYQQCDAQPGASGSGVYVRMWKRQQQKWERKIIGIFS GHQWVDMNGSPQDFNVAVRITPLKYAQICYWIKG  
NYLDCREG

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**FIGURE 212A**

GGGACCGACGACACGCCCCCTCTCCTCCTTTGTTCCGGGGGTCGGCGGCCGCTCTCCTGCCAGAGCTCGGGATC  
TCGGCCCCGGGAGGCGGGCGCTCGGGCGCAGCCGGAAGATGCCGTTGGAAGTACGCGAGAGCCGAGTGCAGAAG  
ATCTGGGTGCCCCGTGGACCACAGGCCCTCGTTGCCAGATCCTGTGGGCCAAAGCTGACCAACTCCCCACCGTC  
ATCGTCATGGTGGGCCCTCCCCGCCGGGGCAAGACCTACATCTCCAAGAAGCTGACTCGCTACCTCAACTGGATT  
GGCGTCCCCACAAAAGTGTTCACGTCGGGGAGTATCGCCGGGAGGCTGTGAAGCAGTACAGCTCCTACAACCTC  
TTCCGCCCCGACAATGAGGAAGCCATGAAAGTCCGGAAGCAATGTGCCTTAGCTGCCTTGAGAGATGTCAAAAGC  
TACCTGGCGAAAAGAAGGGGGACAAATTGCGGTTTTTCGATGCCACCAATACTACTAGAGAGAGGAGACACATGATC  
CTTCATTTTGCCAAAGAAAATGACTTTAAAGCGTTTTTCATCGAGTCGGTGTGCGACGACCCTACAGTTGTGGCC  
TCCAATATCATGGAAGTTAAAATCTCCAGCCCGGATTACAAAGACTGCAACTCGGCAGAAGCCATGGACGACTTC  
ATGAAGAGGATCAGTTGCTATGAAGCCAGCTACCAGCCCCCTCGACCCCGACAAATGCGACAGGGACTTGTGCGCTG  
ATCAAGGTGATTGACGTGGGCCGGAGGTTCTTGGTGAACCGGGTGCAGGACCACATCCAGAGCCGCATCGTGTAC  
TACCTGATGAACATCCACGTGCAGCCGCGTACCATCTACCTGTGCCGGCAGCGCGAGAACGAGCACAACCTCCAG  
GGCCGCATCGGGGGCGACTCAGGCCTGTCCAGCCGGGGCAAGAAGTTTGCCAGTGCTCTGAGCAAGTTCTGTGGAG  
GAGCAGAACCTGAAGGACCTGCGCGTGTGGACCAGCCAGCTGAAGAGCACCATCCAGACGGCCGAGGCGCTGCGG  
CTGCCCTACGAGCAGTGAAGGCGCTCAATGAGATCGACGCGGGCGTCTGTGAGGAGCTGACCTACGAGGAGATC  
AGGGACACCTACCCTGAGGAGTATGCGCTGCGGGAGCAGGACAAGTACTATTACCGCTACCCACCGGGGAGTCC  
TACCAGGACCTGGTCCAGCGCTTGGAGCCAGTGATCATGGAGCTGGAGCGGCAGGAGAATGTGCTGGTCACTGTC  
CACCAGGCCGTCTGCGCTGCCTGCTTGCCTACTTCTTGATAAGAGTGCAGAGGAGATGCCCTACCTGAAATGC  
CCTCTTACACCGTCTGAAACTGACGCTGTGCTTATGGCTGCCGTGTGGAATCCATCTACCTGAACGTGGAG  
TCCGTCTGCACACACCGGGAGAGGTGAGAGGATGCAAAGAAGGGACCTAACCCGCTCATGAGACGCAATAGTGTC  
ACCCCGCTAGCCAGCCCCGAACCCACCAAAAAGCCTCGCATCAACAGCTTTGAGGAGCATGTGGCCTCCACCTCG  
GCCGCCCTGCCAGCTGCCTGCCCCCGAGGTGCCACGCAGCTGCCTGGACAAAACATGAAAGGCTCCCGGAGC  
AGCGCTGACTCCTCCAGGAAACACTGAGGCGAGACGTGTGCGTTCCATTCCATTTCCATTTCTGCAGCTTAGCTTG  
TGTCCTGCCCTCCGCCCGAGGCAAAACGTATCCTGAGGACTTCTTCCGGAGAGGGTGGGGTGGAGCAGCGGGGA  
GCCTTGCCCGAAGAGAACCATGCTTGCCACCGTCTGTGTCCCCTCGGCCGCTGGACACCAGAAAGCCACGTGGGT  
CCCTGGCGCCTGCCTTTAGCCTGGGGGCCCCACCTCCACTCTCTGGGTTCTTAGGAATGTCCAGCCTCGGAGAC  
CTTCACAAAGCCTTGGGAGGGTGATGAGTGCTGGTCTGACAAGAGGCCGCTGGGGACACTGTCCGTTTTGTTTC  
GTTTCTGTGATCTCCCGGCACGTTTGGAGCTGGGAAGACCACACTGGTGGCAGAATCCTAAAATTAAAGGAGGCA  
GCCTCCTAGTTGCTGAAAGTTAAGGAATGTGTAACCTCCACGTGACTGTTTGGTGCATCTTGACCTGGGAAGA  
CGCCTCATGGGAACGAACCTTGGACAGGTGTTGGGTTGACCCCTCTTCTGCAGGAAGTCCCTGAGCTGAGACGCAA  
AGTTGGCTGGGTGGTGGTGGCACCCTGGCTCCTGCAGGTCCACACACCTTCCAGGCCTGTGGCCTGCCTCCAAA  
GATGTGCAAGGGCAGGCTGGCTGCACGGGGAGAGGGAAGTATTTTGGCGAAATATGAGAACTGGGGCCTCCTGCT  
CCCAGGGAGCTCCAGGGCCCCCTCTCTCCTCCACCTGGACTTGGGGGGAACCTGAGAAACACTTCTCTGGAGCTGC  
TGGCTTTTGCACTTTTTTGATGGCAGAAGTGTGACCTGAGAGTCCCACCTTCTCTTCAGGAACGTAGATGTGCGG  
GTGTCTTGCCCTGGGGGGCTTGGAACCTCTGAAGGTGGGGAGCGGAACACCTGGCATCCTTCCCCAGCACTTGCA  
TTACGGTCCCTGCTCTTCCAAGGTGGGGACAGTGGCCCAAGCAAGGCCTCACACGCAGCCACTTCTTCAAGAGCT  
GCCTGCACACTGTCTTGAGCATCTGCCTTGTGCCTGGCACTCTGCCGCTGCCTTGGAAGGTGGTAAGAGTGG  
ACTTTGTCTGGGCTTCCCTTCATGGCGTCTAGACACTTTTGTGGTGATGGAAAGCATGGGACCTGTGCTCTCAG  
CCTGTTGGTTTCTCTCATTGCCTCAAACCTGGGGTAGGTGGAACGGGGGTCTCGTGCCAGATGAAACCATT  
TGGAAACTCGGCAGCAGAGTTTGTCCAAATGACCCTTTTCAGGATGTCTCAAAGCTTGTGCCAAAGGTCACTTTT  
CTTTCTGCCTTCTGCTGTGAGCCCTGAGATCCTCCTCCAGCTCAAGGGACAGGTCTGGGTGAGGGTGGGAGA  
TTTAGACACCTGAAACTGGGCGTGGAGAGAAGAGCCGTTGCTGTTTGTTTTTTGGGAAGAGCTTTTAAAGAATGC  
ATATTTTTTTTACCTGGTTGGAATTGAGTAGGAACTGAGGCTGTGCTTACAGGTATGGTACAATCAAGTGGGGGATT  
TTCATGCTGAACCCATTCAAAGCCCTCCCCGTCCCCGCATTTCCAGGCCACCCTTTGGCTGGCGTCTGCTGGAGA  
GGATGTCTCTGTGCAATCCCGTGCAGCTCAGCTCGCGCAGGTTTTCTCTCTCTCCCTGGATGTTGAGCTCTCAT  
CAGAATATGTGGGTGGGGGGTGGACGTGCACGGGTGCATGATTGTGCTTAACTTGGTTGTATTTTTTCGATTTGAC  
ATGGAAGCCTGTTGCTTTGCTCTAGAGAATAGTTTCTCGTGTCCCTTCGCACGCCTCATTCTTTGAACCTCATC  
TCTGATGTTTGATACAGATGGGGGCTTGATAGCTGTGGTCCCCTTCCCTTCTGACTACGTGAAAATCAATACCT

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**FIGURE 212B**

AAATACAGAAGCCTTGGTCTAAACACCGAGACTTTTAGTTTGCGAAGGGGCTTAGATAGGGAGAGAGGTAACATG  
AATCTGGACAGGGGAGGGAGATACTATAGAAAGGAGAACACTGCATACTTTGCAAAGCCAGTGACCTCCTTTTGA  
AGGGGACATTGGACGGGGGCCGGGGCGGGGTTTCGGTTTGACTACCGTCATGAACTTTTGGCGTATACTGATT  
CTCCAACCTCTCCACCCACAAAATAACGGGGACCAATATTTTAACTTTGCCTATTTGTTTTTGGGTGAGTTTCC  
CCCCCTCCATTATTCTGTCCTGAGACCACGGGCAAAGCTCTTCCATTTGAGAGAGAAGAAAACTGTTTGGAACC  
ACACCAATGATATTTTTCTTTGTAATACTTGAAATTTATTTTTTTATTATTTTGATAGCAGATGTGCTATTTATT  
TATTTAATATATGTATAAGGAGTCCTAAACAATAGAAAGCTGTAGAAGCTGTAGAGATAGGCTTCAGTTGTTAAT  
TGGTTTGGAGCCTCCTATGTGTGACTTATGACTCTCTGTGTTCTGTGTATTTGTCTGAATTAATGACCTGGGATA  
TAAAGCTATGCTAGCTTTCAAACAGGAGATGCCTTCAGAAAGCTTTGTATATTTTGCAGTTGCCAGACCAATAAA  
ATACCTGGTTGAAATACATGGACGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 213**

MPLELTQSRVQKIWVPVDHRPSLPRSCGPKLTNSPTVIVMVGLPARGKTYISKKLTRYLNWIGVPTKVFNVGEYR  
REAVKQYSSYNFFRPDNEEAMKVRKQCALAALRDVKSYLAKEGGQIAVFDAINTTRERRHMILHFAKENDFKAFF  
IESVCDDPTVVASNIMEVKISSPDYKDCNSAEAMDDFMKRISCYEASYQPLDPDKCDRDLSELIKVIDVGRRFLVN  
RVQDHIQSRIVYYLMNIHVQPRTIYLCRHGENEHNLQGRIGGDSGLSSRGKKFASALSKEFVEEQNLKDLRVWTSQ  
LKSTIQTAELRLPYEQWKALNEIDAGVCEELTYEEIRDTYPEEYALREQDKYYYRYPTGESYQDLVQRLEPVIM  
ELERQENVLVICHQAVLRCLLAYFLDKSAEEMPYLCPLHTVLKLTVPVAYGCRVESIYLNVESVCTHRERSEDAK  
KGNPMLMRRNSVTPLASPEPTKKPRINSFEEHVASTSAALPSCLPPEVPTQLPGQNMKGRSSADSSRKH

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**FIGURE 214**

GCGCCGCGGCGCGGAGTCCCGGCTGCGGGATAGACCGAGGGCCATGGCCGCTCTCCCGGACCCGCCGGCGTTGG  
CGGCGCCGGAGCAGTCTACGGCTCCGGCTCTTCGGGCTTCGCCCTCGACTCGGGACTGGAGATCAAACTCGCTC  
GGTGGAGCAGACGCTACTCCCGCTGGTTTTCTCAGATCACCACGCTTATTAATCATAAAGATAATACCAAAAAGTC  
TGATAAACTCTGCAAGCAATTACGCGTGTAGGACAAGCTGTCAACTTGGCAGTTGGAAGATTTGTTAAAGTAGG  
AGAAGCTATAGCCAATGAAAAGTGGGATTTGAAAGAAGAAATAAATATTGCTTGTATTGAAGCTAAACAAGCAGG  
AGAAACAATTGCAGCACTTACAGACATAACCAACTTGAACCATCTGGAATCTGATGGGCAGATCACAAATTTTAC  
AGACAAAACAGGAGTGATAAAGGCTGCAAGATTACTTCTTTCTTCAGTGACAAAAGTGTGTTGCTGGCAGACCG  
AGTAGTCATTAAACAGATAATAACATCAAGAAATAAGGTTCTCGCAACTATGGAAAGACTAGAGAAAGTGAATAG  
CTTTCAAGAGTTTGTCCAAATATTAGTCAATTTGGAAATGAAATGGTGGAGTTTGCACATCTGAGTGGAGATAG  
ACAAAATGATTTGAAAAGATGAAAAGAAAAAGGCAAAAATGGCAGCAGCTAGGGCAGTTCTTGAAAAGTGTACAAT  
GATGCTTCTCACAGCTTCAAAGACATGTCTGAGGCATCCTAACTGCGAATCAGCCCATAAAAACAAAGAAGGAGT  
ATTTGACCGTATGAAAGTGGCATTGGATAAGGTCATTGAAATTGTGACTGACTGTAAACCGAATGGAGAGACTGA  
CATTTTCATCTATCAGTATTTTTACTGGAATTAAGGAATTCAAGATGAATATTGAAGCTCTTCGGGAGAATCTTTA  
TTTTAGTCCAAAGAGAACCTTTCTGTGACATTGGAAGTCATCTTGGAGCGTATGGAGGACTTTACTGATTCTGC  
CTACACCAGCCATGAGCACAGAGAACGCATCTTGGAACTGTCAACTCAGGCGAGAATGGAAGTGCAGCAGTTAAT  
TTCTGTGTGGATTCAAGCTCAAAGCAAGAAAACAAAAGCATCGCTGAAGAACTGGAAGTCAAGTATTTGAAAAT  
CAGTCACAGTCTTAATGAACTTAAGAAAGAACTTCATAGTACAGCGACACAGCTGGCAGCAGATCTATTAAAATA  
CCATGCTGATCATGTGGTTCTAAAAGCATTAAACTTACTGGAGTAGAAGGAAATTTAGAAGCTTTGGCTGAATA  
TGCCTGTAACTCTCTGAACAGAAAGAGCAGCTTGTGAGACCTGTCGATTGTTACGACACATATCTGGGACAGA  
ACCTCTGGAATAACCTGTATACATGCAGAGGAGACATTTAGGTGACTGGCCAACAGATAATTTCTGCTGCTGA  
AACATTGACATTGCATCCATCTAGTAAAATTGCTAAAGAAAACCTAGATGTATTTTGTGAAGCTTGGGAATCCCA  
AATTAGTGACATGTCAACACTGCTGAGAGAAATCAATGACGTGTTTGAAGGAAGACGAGGAGAGAAGTATGGCTA  
CCTTTCACTTCCAAAGCCAATGAAGAATAATGCAAACCTGAAATCATTAAAGCCAGACAAGCCTGACTCTGAGGA  
GCAAGCCAAGATAGCAAAGCTTGGACTTAAGCTGGGTTTGTCTACCTCTGACGCTGACTGCGAAATTGAGAAGTG  
GGAAGATCAGGAGAATGAGATTGTTCAATATGGACGGAACATGTCCAGTATGGCCTATTCTCTGTATTTATTAC  
TAGAGGAGAGGGGCCACTGAAAACCTCCAGGATTTAATTCACTCAACTAGAGTTTTTGTGTCAGAGGGTTTTAAA  
GCTTACTTCCAGTGTTCAAGCTTTTTCAAACAGCTGAAAGACGATGACAAGCTTATGCTTCTCCTGGAAATAAA  
CAAGCTAATTCCTCTATGCCACCAGCTCCAGACAGTAACTAAGACTTCTTGCAGAATAAAGTATTTCTAAAGGT  
TGACAAGTGTATTACGAAGACAAGATCCATGATGGCTCTCTTAGTCCAACCTCTTTCACCTTTGTTATAAACTGCT  
GAAGAAGCTTCAGATGGAAAATAACGGATGGGTCTCAGTTACAAATAAGGACACTATGGATAGTAAACTTGAGA  
AGCTTTTGGGGTCAGATCTCTGGAACATCATGTGATGAAGCTGACATTTTAAAAATCAAATGATCCTTTATCTT  
TTCAGAAATTCATCAATTTTATAAAGAAAACAATATTGAAATTTTGCTCTATTTTCTGATCATGAAACTGATTGT  
AAAGCTTTTTTGACAACATAAATGTCTTGGTAATTGCTAGATTCT

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**FIGURE 215**

MAASPGPAGVGGAGAVYGSSSGFALDSGLEIKTRSVEQTLLPLVSQITTLINHKDNTKKSDKTLQAIQRVGQAV  
NLAVGRFVKVGEAIANENWDLKEEINIACIEAKQAGETIAALTDITNLNHLES DGQITIFTDKTGVIKAARLLLS  
SVTKVLLLADRVVIKQIITSRNKVLATMERLEKVNSFQEFVQIFSQFGNEMVEFAHLSGDRQNDLKDEKKKAKMA  
AARAVLEKCTMMLLTASKTCLRHPNCESAHKNKEGVFDRMKVALDKVIEIVTDCKPNGETDISSISIFTGIKEFK  
MNIEALRENLYFQSKENLSVTLEVILERMEDFTDSAYTSHEHRERILELSTQARMELQQLISVWIQAQSKKTKSI  
AEELELSILKISHSLNELKKELHSTATQLAADLLKYHADHVVLKALKLTGVEGNLEALAEYACKLSEQKEQLVET  
CRLLRHISGTEPLEITCIHAEETFQVTGQQIISAAETLTLHPSSKIAKENLDVFC EAWESQISDMSTLLREINDV  
FEGRRGEKYGYLSLPKPMKNNANLKS LKPDKPDSEEQAKIAKLGLKLGLLTS DADCEIEKWEDQENEIVQYGRNM  
SSMAYSLYLFTRGEGPLKTSQDLIHQLEVFAAEG LKLTSSVQAFSKQLKDDDKLMLLLEINKLIPLCHQLQTVTK  
TSLQNKVFLKVDKCITKTRSMALLVQLLSLCYKLLKKLQ MENNGWVSVTNKDTMDSKT



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**FIGURE 216**

CGAGGTTCTGGGTCGTGGGGCGGAGGGAAGAGCGGGCGGGCGGGAGGCGCCGGCGCCAGACGCGGAGGGAAGGAGC  
TACGAGTAGCCGCCGAGAGGCCGCGGAGCCAGCGACGACCGACCCAGCCGAGCCGCCGCCGCCGCCGCCA  
TGGCGGCCGCCAAGGACACTCATGAGGACCATGATACTTCCACTGAGAATACAGACGAGTCCAACCATGACCCTC  
AGTTTGAGCCAATAGTTTCTCTTCTGAGCAAGAAATTAAACACTGGAAGAAGATGAAGAGGAACTTTTAAAA  
TGCGGGCAAACTGTTCCGATTTGCCTCTGAGAACGATCTCCAGAATGGAAGGAGCGAGGCACTGGTGACGTCA  
AGCTCCTGAAGCACAAAGGAGAAAGGGGCCATCCGCCTCCTCATGCGGAGGGACAAGACCCTGAAGATCTGTGCCA  
ACCACTACATCACGCCGATGATGGAGCTGAAGCCCAACGCAGGTAGCGACCGTGCCTGGGTCTGGAACACCCACG  
CTGACTTCGCCGACGAGTGCCCCAAGCCAGAGCTGCTGGCCATCCGCTTCCTGAATGCTGAGAATGCACAGAAAT  
TCAAAACAAAGTTTGAAGAATGCAGGAAAGAGATCGAAGAGAGAGAAAAGAAAGCAGGATCAGGCAAAAATGATC  
ATGCCGAAAAAGTGGCGGAAAAGCTAGAAGCTCTCTCGGTGAAGGAGGAGACCAAGGAGGATGCTGAGGAGAAGC  
AATAAATCGTCTTATTTTATTTTCTTTTCTCTCTTCTTCTTTTAAAAAATTTTACCCTGCCCCCTCTT  
TTTCGGTTTGTTTTATTCTTTTCAATTTTACAAGGGACGTTATATAAAGAACTGAACTC

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**FIGURE 217**

MAAAKDTHEDHDTSTENTDESNHDPQFEP IVSLPEQEIKTLEDEEEELFKMRAKLFRFASENDLPEWKERTGDV  
KLLKHKEKGAI RLLMRRDKTLKICANHYITPMELKPNAGSDRAWVWNTHADFADECPKPELLAIRFLNAENAQK  
FKTKFEECRKEIEEREKKAGSGKNDHAEKVAEKLEALSVKEETKEDAEKQ

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**FIGURE 218A**

GTGGGGTGGGGTGGGGCTGGGGGCTTGTGCGCCCTTTCAGGCTCCACCCTTTGCGGAGATTATAAATAGTCATGAT  
CCCAGCGAGACCCAGAGATGCCTGTAATGGTGAGACTTTGGATCCTTCCTGAGGACGTGGAGAAAACCTTTCTGCT  
GAGAAGGACATTTTGAAGGTTTTGTTGGCTGAAAAAGCTGTTTCTGGAATCACCCCTAGATCTTTCTTGAAGACT  
TGAATTAGATTACAGCGATGCGGGGACACAGAAGGTCACCCAGCTCTGATATTTGCCATCACAGTTGCTACAATCG  
GCTCTTTCCAATTTGGCTACAACACTGGGGTCATCAATGCTCCTGAGAAGATCATAAAGGAATTTATCAATAAAA  
CTTTGACGGACAAGGGAAATGCCCCACCCTCTGAGGTGCTGCTCACGTCTCTCTGGTCTTGTCTGTGGCCATAT  
TTTCCGTCGGGGGTATGATCGGCTCCTTTTCCGTCGGACTCTTCGTCAACCGCTTTGGCAGGCGCAATTCAATGC  
TGATTGTCAACCTGTTGGCTGTCACTGGTGGCTGCTTTATGGGACTGTGTAAAGTAGCTAAGTCGGTTGAAATGC  
TGATCCTGGGTGCGCTTGGTTATTGGCCTCTTCTGCGGACTCTGCACAGGTTTTGTGCCCATGTACATTGGAGAGA  
TCTCGCCTACTGCCCTGCGGGGTGCCTTTGGCACTCTCAACCAGCTGGGCATCGTTGTTGGAATTTCTGGTGGCCC  
AGATCTTTGGTCTGGAATTCATCCTTGGGCTCTGAAGAGCTATGGCCGCTGCTACTGGGTTTTACCATCCTTCCTG  
CTATCCTACAAAGTGCAGCCCTTCCATTTTGGCCTGAAAGTCCCAGATTTTTGCTCATTACAGAAAAGAAGAGG  
AGAATGCTAAGCAGATCCTCCAGCGTTGTGGGGCACCCAGGATGTATCCCAAGACATCCAGGAGATGAAAGATG  
AGAGTGCAAGGATGTCAAGAAAAGCAAGTCACCGTGCTAGAGCTCTTTAGAGTGTCAGCTACCGACAGCCCA  
TCATCATTTCCATTGTGCTCCAGCTCTCTCAGCAGCTCTCTGGGATCAATGCTGTGTTCTATTACTCAACAGGAA  
TCTTCAAGGATGCAGGTGTTCAAGAGCCCATCTATGCCACCATCGGCGGGGTGTGGTTAATACTATCTTCACTG  
TAGTTTTCTCTATTTCTGGTGGAAAGGGCAGGAAGAAGGACTCTGCATATGATAGGCCTTGGAGGGATGGCTTTTT  
GTTCCACGCTCATGACTGTTTTCTTTGTTATTAAGGATAACTATAATGGGATGAGCTTTGTCTGTATTGGGGCTA  
TCTTGGTCTTTGTAGCCTTCTTTGAAATTGGACCAGGCCCATTCCTGGTTTTATTGTGGCCGAACCTCTTCAGCC  
AGGGCCCCCGCCAGCTGCGATGGCAGTGGCCGGCTGCTCCAACCTGGACCTCCAACCTTCCTAGTCGGATTGCTCT  
TCCCCTCCGCTGCTCACTATTTAGGAGCCTACGTTTTTATTATCTTCACCGGCTTCCTCATTACCTTCTTGGCTT  
TTACCTTCTTCAAAGTCCCTGAGACCCGTGGCAGGACTTTTTGAGGATATCACACGGGCCTTTGAAGGGCAGGCAC  
ACGGTGAGATAGATCTGGAAGGACGGCGTCATGGAGATGAACAGCATCGAGCCTGCTAAGGAGACCACCACCA  
ATGTCTAAGTCGTGCCCTCCTTCCACCTCCCTCCCGCATGGGAAAGCCACCTCTCCCTCAACAAGGGAGAGACCT  
CATCAGGATGAACCCAGGACGCTTCTGAATGCTGCTACTTAATTCCTTTCTCATCCCACGCACTCCATGAGCACC  
CCAAGGCTGCGGTTTGTGATCTTCAATGGCTTTTTTAAATTTTATTTCTTGACATCCTCTTCTGCTTAGGAGA  
GACCGAGTGAACCTACCTTCATTTAGGAGGGATTGGCCGCTTGGCACATGACAACCTTGCCAGCTTTTCCCTCC  
TTGGGTTCTGATATTGCCGCACTAGGGGATATAGGAGAGGAAAAGTAAGGTGCAGTTCCCCAACCTCAGACTTA  
CCAGGAAGCAGATACATATGAGTGTGGAAGCCGGAGGGTGTATGTAAGAGCACCTTCCTCACTTCCATACAGC  
TCTACGTGGCAAATTAACCTGAGTTTTATTTATTTTATCCTCTGGTTAATTACATAATTTTTTTTTTTTACTT  
TAAGTTTCAGGATACATGTGCCGAATGTGCAGGTTTGTTACATAGGTATATATATGCCATGATGGAAATATTTAT  
TTTTTTAAGCGTAATTTTGCCAAATAATAAAAACAGAAGGAAATTGAGATTAGAGGGAGGTGTTTAAAGAGAGGT  
TATAGAGTAGAAGATTTGATGCTGGAGAGGTTAAGGTGCAATAAGAATTTAGGGAGAAATGTTGTTTCATTATTGG  
AGGGTAAATGATGTGGTGCCGAGGTCTGTACGTTACCTCTTAACAATTTCTGTCCCTTCAGATGGAAACTCTTTA  
ACTTCTCGTAAAAGTCATATACCTATATAATAAAGCTACTGATTTCTTGGAGCTTTTTTCTTTAAGATAATAGT  
TTACATGTAGTAGTACTTGAAATCTAGGATTATTAATAATATGGGCATTGTAGTTAATGATGGTTGATGGGTTT  
TAATTTTGGATGGAGTCCAGGGAAGAGAAAGTGATTTCTAGAAAGCCTGTTCCTCCTCACTGGATGAAATAACTCC  
TTCTTGTAGTAGTCTCATTACTTTTGAAGTAATCCCGCCACCTATCTCGTGGGAGAGCCATCCAAATAAGAAACC  
TAAAATAAATTGGTTCTTGGTAGAGATTCATTATTTTTTCCACTTTGTTCTTTAGGAGATTTTAGGTGTTGATTTTC  
TGTTGTATTTTAACTCATACCTTTAAAGGAATCCCCAAAGAATGTTTATAGCAAACCTGGAATTTGTAACCTCA  
GCTCTGGGAGAGGATTTTTTTCTGAGCGATTATTATCTAAAGTGTGTTGTTGCTTTAGGCTCACGGCACGCTTGC  
GTATGTCTGTTACCATGTCACTGTGGTCCATGCCGAATGCCCTCAGGGGACTTGAATCTTTCCAATAAACCAGG  
TTTAGACAGTATGAGTCAATGTGCAGTGTAGCCACACTTGAGAGGATGAATGTATGTGCACTGTCACTTTGCTC  
TGGGTGGAAGTACGTTATTGTTGACTTATTTTCTCTGTGTTGTTCTTACAGCCCCCTTTTTCATATGTTGCTCAG  
TCTCCCTTTCCCTTCTTGGTGCTTACACATCTCAGACCCTTTAGCCAAACCCTTGTCAGTGACAGTATTTTGGTT  
CTTAGTTCTCACTGTTCCCTCTGCTCCTGGAGCCTTTGAATAAAAATGCACGTAGCTGAGGCCGGATGCGGTGGC  
TCACGCCTGTAATCCCAGCACTTTGGGAGGCCTAGGCGGGCGGTGAGGGTTTCGAGACCAGTCTGGCCAACATCG  
TGAAACCCTGTCTCTACTAAAAATGCAAAAATTAGCCGGGCGTGGTGGCGGGCGCCTGTAATCCCAGCTACTTGG

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**FIGURE 218B**

GAAGCTGAGGCGGGAGAATCATGTGAACCCGGGACGCAGGGGTTGCAGTGAGCGGAGATCGCATCATTGCACTCT  
AGCCTGGGCCACAGGGCGAGACTCCGTCTCAAAAAAAAAAAAAATGCACATAGCTATCGAGTGTGCTTTAGCTTGA  
AAAGGTGACCTTGCAACTTCATGTCAACTTTCTGGCTCCTCAAACAGTAGGTTGGCAGTAAGGCAGGGTCCCATT  
TCTCACTGAGAAGATTGTGAATATTTCCATATGGATTTTCTATTGTTACTCTGGTTCTTTGTTTTAAATAAAAA  
TTCTGAATGTACACG

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**FIGURE 219**

MGTQKVTPALIFAITVATIGSFQFGYNTGVINAPEKIIKEFINKTLTDKGNAPPSEVLLTSLWSLSVAIFSVGGM  
IGSFSVGLFVNRFGRNSMLIVNLLAVTGGCFMGLCKVAKSVEMLILGRLVIGLFCGLCTGFVPMYIGEISPTAL  
RGAFGTNLQLGIVVGILVAQIFGLEFILGSEELWPLLLGFTILPAILQSAALPFCPESPRFLLINRKEEENAKQI  
LQRLWGTQDVSQDIQEMKDESARMSQEKQVTVLELFRVSSYRQPIIISIVLQLSQQLSGINAVFYYSTGIFKDAG  
VQEPIYATIGAGVVNTIFTVVSFLFLVERAGRRTLHMIGLGGMAF CSTLMTVSLLLKDNYNGMSFVCIGAILVFVA  
FFEIGPGPIPWFI VAELFSQGPRPAAMAVAGCSNWTSNFLVGLLFPSAAHYLGAYVFIIFTGFLITFLAFTFFKV  
PETRGRTFEDITRAFEGQAHGADRSGKDGVMEMNSIEPAKETTTNV

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**FIGURE 220A**

GTGGGGTGGGGTGGGGCTGGGGGCTTGTCGCCCTTTTCAGGCTCCACCCTTTGCGGAGATTATAAATAGTCATGAT  
CCCAGCGAGACCCAGAGATGCCTGTAATGGTGAGACTTTGGATCCTTCCTGAGGACGTGGAGAAAACCTTTCTGCT  
GAGAAGGACATTTTGAAGGTTTTGTTGGCTGAAAAAGCTGTTTCTGGAATCACCCCTAGATCTTTCTTGAAGACT  
TGAATTAGATTACAGCGATGCGGGGACACAGAAGGTCACCCAGCTCTGATATTTGCCATCACAGTTGCTACAATCG  
GCTCTTTCCAATTTGGCTACAACACTGGGGTCATCAATGCTCCTGAGAAGATCATAAAGGAATTTATCAATAAAA  
CTTTGACGGACAAGGGAAATGCCCCACCCTCTGAGGTGCTGCTCACGTCTCTCTGGTCTTGTCTGTGGCCATAT  
TTTCCGTCGGGGGTATGATCGGCTCCTTTTCCGTCGGACTCTTCGTCAACCGCTTTGGCAGGCGCAATTCAATGC  
TGATTGTCAACCTGTTGGCTGTCACTGGTGGCTGCTTTATGGGACTGTGTAAAGTAGCTAAGTCGGTTGAAATGC  
TGATCCTGGGTCGCTTGGTTATTGGCCTCTTCTGCGGACTCTGCACAGGTTTTGTGCCCATGTACATTGGAGAGA  
TCTCGCCTACTGCCCTGCGGGGTGCCTTTGGCACTCTCAACCAGCTGGGCATCGTTGTTGGAATTTCTGGTGGCCC  
AGATCTTTGGTCTGGAATTCATCCTTGGGTCTGAAGAGCTATGGCCGCTGCTACTGGGTTTTACCATCCTTCCTG  
CTATCCTACAAAGTGCAGCCCTTCCATTTTGGCCTGAAAGTCCAGATTTTGTCTATTAAACAGAAAAGAAGAGG  
AGAATGCTAAGCAGATCCTCCAGCGTTGTGGGGCACCCAGGATGTATCCCAAGACATCCAGGAGATGAAAGATG  
AGAGTGCAAGGATGTCACAAGAAAAGCAAGTCACCGTGCTAGAGCTCTTTAGAGTGTCAGCTACCGACAGCCCA  
TCATCATTTCCATTGTGCTCCAGCTCTCTCAGCAGCTCTCTGGGATCAATGCTGTGTTCTATTACTCAACAGGAA  
TCTTCAAGGATGCAGGTGTTCAAGAGCCCATCTATGCCACCATCGGCGGGGTGTGGTTAATACTATCTTCACTG  
TAGTTTTCTCTATTTCTGGTGGAAAGGGCAGGAAGAAGGACTCTGCATATGATAGGCCTTGAGGGATGGCTTTTT  
GTTCCACGCTCATGACTGTTTTCTTTGTTATTAAAGGATAACTATAATGGGATGAGCTTTGTCTGTATTGGGGCTA  
TCTTGGTCTTTGTAGCCTTCTTTGAAATTGGACCAGGCCCATTCCTGGTTTTATTGTGGCCGAACCTTTCAGCC  
AGGGCCCCCGCCAGCTGCGATGGCAGTGGCCGGCTGCTCCAACCTGGACCTCCAACCTCCTAGTCGGATTGCTCT  
TCCCCCTCCGCTGCTCACTATTTAGGAGCCTACGTTTTTATTATCTTCACCGGCTTCCTCATTACCTTCTTGGCTT  
TTACCTTCTTCAAAGTCCCTGAGACCCGTGGCAGGACTTTTGAGGATATCACACGGGCCTTTGAAGGGCAGGCAC  
ACGGTGCAGATAGATCTGGAAGGACGGCGTCATGGAGATGAACAGCATCGAGCCTGCTAAGGAGACCACCACCA  
ATGTCTAAAGTCGTGCCTCCTTCCACCTCCCTCCCGCATGGGAAAGCCACCTCTCCCTCAACAAGGGAGAGACCT  
CATCAGGATGAACCCAGGACGCTTCTGAATGCTGCTACTTAATTCCTTTCTCATCCACGCACTCCATGAGCACC  
CCAAGGCTGCGGTTTGTGGATCTTCAATGGCTTTTTAAATTTTATTTCCTGGACATCCTCTTCTGCTTAGGAGA  
GACCGAGTGAACCTACCTTCATTTCAGGAGGGATTGGCCGCTTGGCACATGACAACCTTGCCAGCTTTTCTCCCTCC  
TTGGGTTCTGATATTGCCGCACTAGGGGATATAGGAGAGGAAAAGTAAGGTGCAGTTCCCCAACCTCAGACTTA  
CCAGGAAGCAGATACATATGAGTGTGGAAGCCGGAGGGTGTATGTAAGAGCACCTTCCTCACTTCCATACAGC  
TCTACGTGGCAAATTAACCTGAGTTTTATTTATTTTATCCTCTGGTTAATTACATAATTTTTTTTTTTTACTT  
TAAGTTTCAGGATACATGTGCCGAATGTGCAGGTTTGTTACATAGGTATATATATGCCATGATGGAAATATTTAT  
TTTTTTAAGCGTAATTTTGCCAAATAATAAAAACAGAAGGAAATTGAGATTAGAGGGAGGTGTTTAAAGAGAGGT  
TATAGAGTAGAAGATTTGATGCTGGAGAGGTTAAGGTGCAATAAGAATTTAGGGAGAAATGTTGTTTCATTATTGG  
AGGGTAAATGATGTGGTGCCTGAGGTCTGTACGTTACCTCTTAACAATTTCTGTCTTCAGATGGAAACTCTTTA  
ACTTCTCGTAAAAGTCATATACCTATATAATAAAGCTACTGATTTCCCTGGAGCTTTTTTCTTTAAGATAATAGT  
TTACATGTAGTAGTACTTGAAATCTAGGATTATTAATAATATGGGCATTGTAGTTAATGATGGTTGATGGGTTT  
TAATTTTGGATGGAGTCCAGGGAAGAGAAAGTGATTTCTAGAAAAGCCTGTTCCCTCCTGATGAAATAACTCC  
TTCTTGTAGTAGTCTCATTACTTTTGAAGTAATCCCGCCACCTATCTCGTGGGAGAGCCATCCAAATAAGAAACC  
TAAAATAAATTGGTTCTTGGTAGAGATTCATTATTTTTTCCACTTTGTTCTTTAGGAGATTTTAGGTGTTGATTTTC  
TGTTGTATTTTAACTCATACCTTTAAAGGAATTCCTCAAAGAATGTTTATAGCAAACCTGGAATTTGTAACCTCA  
GCTCTGGGAGAGGATTTTTTTCTGAGCGATTATTATCTAAAGTGTGTTGTTGCTTTAGGCTCACGGCACGCTTGC  
GTATGTCTGTTACCATGTCACTGTGGTCCATGCCGAATGCCCTCAGGGGACTTGAATCTTTCCAATAAACCAGG  
TTTAGACAGTATGAGTCAATGTGCAGTGTAGCCACACTTGAGAGGATGAATGTATGTGCACTGTCACTTTGCTC  
TGGGTGGAAGTACGTTATTGTTGACTTATTTTCTCTGTGTTTGTCTACAGCCCTTTTTTCATATGTTGCTCAG  
TCTCCCTTTCCCTTCTTGGTGTCTACACATCTCAGACCCTTTAGCCAAACCCTTGTCAGTGACAGTATTTTGGTT  
CTTAGTTCTCACTGTTCCCTCTGCTCCTGGAGCCTTTGAATAAAAATGCACGTAGCTGAGGCCGGATGCGGTGGC  
TCACGCCTGTAATCCCAGCACTTTGGGAGGCCTAGGCGGGCGGTGAGGGTTTCGAGACCAGTCTGGCCAACATCG  
TGAAACCCTGTCTCTACTAAAAATGCAAAAATTAGCCGGGCGTGGTGGCGGGCGCCTGTAATCCCAGCTACTTGG

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**FIGURE 220B**

GAAGCTGAGGCGGGAGAATCATGTGAACCCGGGACGCAGGGGTTGCAGTGAGCGGAGATCGCATCATTGCACTCT  
AGCCTGGGCCACAGGGCGAGACTCCGTCTCAAAAAAAAAAAAAATGCACATAGCTATCGAGTGTGCTTTAGCTTGA  
AAAGGTGACCTTGCAACTTCATGTCAACTTTCTGGCTCCTCAAACAGTAGGTTGGCAGTAAGGCAGGGTCCCATT  
TCTACTGAGAAGATTGTGAATATTTCCATATGGATTTTCTATTGTTACTCTGGTTCTTTGTTTTAAATAAAAA  
TTCTGAATGTACACG

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**FIGURE 221**

MGTQKVTPALIFAITVATIGSFQFGYNTGVINAPEKIIKEFINKTLTDKGNAPPSEVLLTSLWSLSVAIFSVGGM  
IGSFSVGLFVNRFGRNSMLIVNLLAVTGGCFMGLCKVAKSVEMILIGRLVIGLFCGLCTGFVPMYIGEISPTAL  
RGAFGTNLNQLGIVVGILVAQIFGLEFILGSEELWPLLLGFTILPAILQSAALPFCPESPRFLLINRKEEENAKQI  
LQRLWGTQDVSQDIQEMKDESARMSQEKQVTVLELFRVSSYRQPIIISIVLQLSQQLSGINAVFYYSTGIFKDAG  
VQEPIYATIGAGVVNTIFTVVSFLVERAGRRTLHMIGLGMAFCSTLMTVSLLLKDNYNGMSFVCIGAILVFVA  
FFEIGPGPIPWFI VAELFSQGPRPAAMAVAGCSNWT SNFLVGLLFPSAAHYLGAYVFIIFTGFLITFLAFTFFKV  
PETRGRTFEDITRAFEGQAHGADRSGKDGVMEMNSIEPAKETTTNV



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**FIGURE 222**

GTGAAACACCCCTCGGCTGGGAAGTCAGTTCGTTCTCTCCTCTCCTCTCTTCTTGTGTTGAAC**ATGG**TGCGGACTAA  
AGCAGACAGTGTTCCAGGCACTTACAGAAAAGTGGTGGCTGCTCGAGCCCCCAGAAAGGTGCTTGGTTCTTCCAC  
CTCTGCCACTAATTCGACATCAGTTTCATCGAGGAAAGCTGAAAATAAATATGCAGGAGGGAACCCCGTTTGCCT  
GCGCCCAACTCCCAAGTGGCAAAAAGGAATTGGAGAATTCTTTAGGTTGTCCCCTAAAGATTCTGAAAAAGAGAA  
TCAGATTCTGAAGAGGCAGGAAGCAGTGGCTTAGGAAAAGCAAAGAGAAAAGCATGTCCTTTGCAACCTGATCA  
CACAAATGATGAAAAAGA**TAGA**ACTTTCTCATTTCATCTTTGAATAACGTCTCCTTGTTTACCCTGGTATTCTAG  
AATGTAAATTTACATAAATGTGTTTGTTCGAATTAGCTTTGTTGAACAGGCATTTAATTAAAAAATTTAGGTTTA  
AATTTAGATGTTCAAAAGTAGTTGTGAAATTTGAGAATTTGTAAGACTAATTATGGTAACTTAGCTTAGTATTCA  
ATATAATGCATTGTTTGGTTTCTTTTACCAAATTAAGTGTCTAGTTCTTGCTAAAATCAAGTCATTGCATTGTGT  
TCTAATTACAAGTATGTTGTATTTGAGATTTGCTTAGATTGTTGTACTGCTGCCATTTTTATTGGTGTGTTGATT  
TTGGAATGGTGCCATATTGTCACTCCTTCTACTTGCTTTAAAAAGCAGAGTTAGATTTTTGCACATTAAAAAATT  
CAGTATTAATT

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**FIGURE 223**

MVRTKADSVPGTYRKVVAARAPRKVLGSSTSATNSTSVSSRKAENKYAGGNPVCVRPTPKWQKGIGEFFRLSPKD  
SEKENQIPEEAGSSGLGKAKRKACPLQPDHTNDEKE

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**FIGURE 224A**

CGGACGCGTGGAACGAAGCCACCCATTACGGTATGATGATGTCAAACGTGATGCTGATGCTACAGTTACAGCCC  
 CTGCTGGCGCAGCCTCTCTGATTCTCTCTCCCTCTCCGCGTCCAGTGCTGGGCTTTTTCAGACAAGTGCATCTCC  
 TAACCAGGTACATTTTCAGCCGCGACCCACTCTCCGCCAGTCACCGGAGGCAGACCGCGGGAGGAGAGCTGAGGA  
 CAGCCGCGTGCGCTTCGCCAGCAGCGGGGTGGGAGGAAGGACATTAAATACTGCAGAAGTCAAGACCCCCCAGG  
 TCGAACCAGACACGATGCGCGCCCCGGGCTGCGGGCGGCTGGTGCTGCCGCTGCTGCTCCTGGCCGCGGCAGC  
 CCTGGCCGAAGGCGACGCCAAGGGGCTCAAGGAGGGCGAGACCCCCGGCAATTTTCATGGAGGACGAGCAATGGCT  
 GTCGTCCATCTCGCAGTACAGCGGCAAGATCAAGCACTGGAACCGCTTCCGAGACGAAGTGGAGGATGACTATAT  
 CAAGAGCTGGGAGGACAATCAGCAAGGAGATGAAGCCCTGGATACCAAGGACCCCTGCCAGAAGGTGAAGTG  
 CAGCCGCCACAAGGTGTGCATTGCCAGGGCTACCAGCGGGCCATGTGCATCAGTCGCAAGAAGCTGGAGCACAG  
 GATCAAGCAGCCGACCGTGAACTCCATGGAAACAAAGACTCCATCTGCAAGCCCTGCCACATGGCCCAGCTTGC  
 CTCTGTCTGCGGCTCAGATGGCCACACTTACAGCTCTGTGTGTAAGCTGGAGCAACAGGCGTGCCTGAGCAGCAA  
 GCAGCTGGCGGTGCGATGCGAGGGCCCCCTGCCCCTGCCCCACGGAGCAGGCTGCCACCTCCACCGCCGATGGCAA  
 ACCAGAGACTTGACCGGTGAGGACCTGGCTGACCTGGGAGATCGGCTGCGGGACTGGTTCAGCTCCTTCATGA  
 GAACTCCAAGCAGAATGGCTCAGCCAGCAGTGTAGCCGGCCCGGCCAGCGGGCTGGACAAGAGCCTGGGGGCCAG  
 CTGCAAGGACTCCATTGGCTGGATGTTCTCCAAGCTGGACACCAGTGCTGACCTCTTCTGGACCAGACGGAGCT  
 GGCCGCCATCAACCTGGACAAGTACGAGGTCTGCATCCGTCCCTTCTTCAACTCCTGTGACACCTACAAGGATGG  
 CCGGGTCTCTACTGCTGAGTGGTGCTTCTGCTTCTGGAGGGAGAAGCCCCCTGCCTGGCAGAGCTGGAGCGCAT  
 CCAGATCCAGGAGGCCGCCAAGAAGAAGCCAGGCATCTTCATCCCGAGCTGCGACGAGGATGGCTACTACCGGAA  
 GATGCAGTGTGACCAGAGCAGCGGTGACTGCTGGTGTGTGGACCAGCTGGGCTGGAGCTGACTGGCACGCGCAC  
 GCATGGGAGCCCCGACTGCGATGACATCGTGGGCTTCTCGGGGGACTTTGGAAGCGGTGTGCGCTGGGAGGATGA  
 GGAGGAGAAGGAGACGGAGGAAGCAGGCGAGGAGGCCGAGGAGGAGGAGGCGAGGCGAGGCTGACGACGG  
 GGGCTACATCTGGTAGACGCCCTCAGAAGCCGGCTGCGGGGGGGGACTCAACAGCAGAGCTCTGAGCAGCAGCAG  
 GCAACTTCGAGAACGGATCCAGAAATGCAGTCAGAAGGACCCTGCTCCACCTGGGGGGGACTGGGAGTGTGAGTGT  
 GCATGGCATGTGTGTGGCACAGATGGCTGGGACGGGTGACAGTGTGAGTGCATGTGTGCATGCATGTGTGTATGT  
 GTGTGTGTGTGTGGCATGCGCTGACAAATGTGTCTTGATCCACACTGCTCCTGGCAGAGTGAGTAACCCAAAGG  
 CCCCTTCGGCCTCCTTGATGCTGTTTTCTTTCTTTTGTGTTGGTTTTTAAATACATTACACACAAATACAAA  
 TTGACAGGTCAAAATCCATGAAATGAGATCCCCAGCCGTGTCTCCAGCCAGCCCTGACCCCTTGGTTTCTAC  
 CCTGGCTCCCCCTTGGTTTCTACCTGGCTCAACCGACCCCTGTCTGCCCTTCTCCCTCCTGCTTCTGAGGTCAAG  
 CTCTGGCCTGCGAGCCTGTCCCCATTGCAAAGGGGAGGGAGGGGCAGGGAGCTGTCTACCAGCTGAGGTCTCTCC  
 AAACTGGGCCGATGTGGTGTGACATCCCCACCAGCCTCAGATGAGACGGGCCAGGACGCCACAGCCACAGCAAGC  
 CCTGTCCCTTTGCCGGATCCCCAAACACTAGAGAAGCTCTCCTAACCCAAGGCGGAGAATGAAGGTGGTGGCGGC  
 AGAGGAGGAGGGCAGCAGCTGAGAGGCCAGGGACAGGGTGCCTCGCCAAGCTGTCTGAGGTCTGTCCCAGGTGGC  
 CCAGGTGGTGCAGGTAGAACAGGGTGAGGAGAGGGGTGGCTCAACAGGAGGAGGCTGTGGCTGCAGAGCCTGG  
 AGGAGCTTTTAGGTGTTGAGATGGGGCAGCTCTGAATCCTAGACCCTGGAATAGCCTGTCCCTTTTCTCTGGGTC  
 TCGTGGTGGAGCCATGATCTGGGCTGCTCTCTTGGGGACACTGGGTGGTGGTTACACAGTTGACCTCTGCCTGGC  
 TCCCCCTTGGTGCAACTCCTGCCTCCATCCCCCTTGTGGGGTCCCCCTCATCCACTTGAGGGCGCCTGAGGGCCA  
 GGAGCAGCAGGCAAGGAGCCTGGGTCTAGGCTAAGGGGTGTGTGCCACCTCCTCCCTGACCCTTAACACTCCT  
 GTCCTGCCCAGACCAACAGAGAGAGCTGTCCCTGAGACCCCGGAGAGAAGCAGCTGCCGAAAGCTGCAGCCTTTC  
 CGCACTCTGAGACCATGATCTTCTCCTGCCAGGGGAGAGCCACCCACAGGCCATGTCCAGCCCCACTTCCCTCA  
 GCCCCCAGGGCTTCCCTTCTGGCCCCCTCTGAGGATTCCCTAGGGGTGCCCCGAGAGGGGCTTCCCCAAGCTCTGT  
 TTTGAAGCCTGCAATGTGGAAAAGTGAGAAGTCAGAGGGAACAGGACAGGTGCAGCCGGGCTCTGAGGCCACACC  
 TCACACCTCGCTGTTCCCCAACATCCCCCTGAGCAGTGTGAGCTCATCTCACCAGATGAGAAGAGGCCCTGTGCAT  
 TTCTTTTGTGTTGTTGTTGCTGTTTTCCCCCACCCATCCAGTTCTCCTCAGCAAAGCAAATTCCTTAACACCTTT  
 GGTGGAGAATTTCTTACCCAGACTTGGGGCTGTGATGCCCTTTCAGTGCCTGGTGGTGCAGCGTGTGTGCGTGTG  
 CCTGTGTGTGAACCTGGGGGCCATCCTGGTGGCCTGGGAGCGTGAGGAGAGGGCCCCCTGTGTGCTGGGTGAGTGG  
 TGGGTGTGGGGTCAATGCAGTGAGGCTCTCTGGGTGAGGCTCCCAACCTGGCAGTCCCCAGCCTCCAGCATCTG  
 TGAGCGTCTGTTGGACTTTACAGAAGAGCCTCATCCCGTCTGCCCTCACTCTGCCCTGGAATCAACATCTTCCG  
 AGTCCTTCTTGGGGGAAATAGCAGAGCCCCACTTAACCTCATAAACTGCTTCCCATTCGCGAGCCAGTTCTGAT

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**FIGURE 224B**

TGTTGAGGTGTCGCGTCGTTCCAGGTCCCCAGTCCCCTCTTTCTCCTGTCCTCTCTCTGTCCTTCACCTCCCCA  
CTCCAGCCCCGGCTCAGTTCAGGGAAATGCTGTTCCATATCAGCCCTCTGCTCTCTGAGGCAGCCGCGCCTCTGA  
CTCGGAGCTACTTGAAACTTCTGCTCTTGCTAGGATTGGAGTCTACCTATCTCTTCCATTTGTCCCAGCTGGAGT  
TCTGGAACTTTCTCTCCTCGGGGTGGGGGTGGGGGTGTTAAGGATGCTGGGGGGCCTGGGGAAGGAAGGAGTTCA  
GAGGAAGGGTGTCCCCTGTCTCTTGATGTCACCCTCCGCTCCTGGGACACGTGCTCTCTCTGTCTCTGGGTCTT  
CTGGCTGTGCACGTTTGTGTGTCTTGTAAATATGTTTTAGGAAGAAAGCAAAAGGGACTGAACTAGCCTCTGGT  
AGGATTGCAGGGGTCCAGCCTTGCTGTTTTCCGAAGCCCCACACTGCCTTTCGCCCCACTGAGACTGGTCCCCT  
CAAAAGGTAGACAAAACAGCAGCTCCCTGTGGAGCTGAAGGGCGGCCTCAAAGTGGCTTTTTGTTAGACAAGGTT  
AAGGTTTCTCATGAGCAAGGTTGCAGATCGGTCTTCTCAGCTCCTTGATTTGTGACCTTGACCAAGGGGCCT  
GCCACCCAGCCCCCTCCAGTGCCCTCTCCTCGATGCCTCGCTCCTTCTGCCCCCACTCCCCTGGCTTAGGCAGGT  
AGGGGAATTAGGGCCATGCTGGAAGAAGCTTAACCATGTGTTCAAAGAACGGTTTTCTTGCTTGCTTGGTCCTGGA  
ACTCCCCCTTGCTGCCCCAGGCCTCCTTGCCCCATGGGTGCTGGGGGAGGTGGATGTCAGATCTGGTAGGTTGCA  
GCAGAGAAAATAAATGTGCCTTGAGAGACCACTCAGAGAGGGTCCAAGGGTGATGGAGAAGGAAGCATGGCCTGG  
GAGCTTGGAAGGGAGGGGTGGTGGGTGGCGGCATCTTGACTGCCCCCTGTTGTCCACACAGTGGGGGTGGTCAC  
CCCCCTTCACTCCAGCCCGCCTGCCTTCAGCCTTCCATGAGCTTACCTGCTTCCAACCTTCACTTTGGAGGGGT  
GGGGTCCGTTGGCATCAACACGGGGACCCTCTGCTTACCAAAGCCCCAGCCCTCAGCCCTGGGGAGAACAAT  
GGCTGAGCTTTGATACCTGGGGTCGTCGAGAGGCTGCGGGCTGGCGGCAGTCCAGGGGAGAGACACCACAGAAG  
GAGACCCAGACATCCCGAGGAAGTCCCAGCAGAGCAAAGTCTTCCAGCCTGAAGCCTGCTTAAACTGTGTGA  
TGTGCAATAACTGAGCTTAGAGTTAGGAATTGTGTTCAAGTGCTTGGATTTCCGTCTGTAGATTTAACTGCTGAA  
ATTGTATCTCTCAGTAATTTTAGATGTCTTTAAAAAATTGAAAAACAAAGTGTTAGACTGTGTGCGTGTGCGTT  
GATGGGCACTCAAGAGTCCCGTGAGTCATCCAGCCCTGCCTTTCCTTGCGCCCCATCCTCTCACGTCCCGCCC  
TGCCTCCACTTGGGGACCCTGCCTCGTGTCTCTTTATCTGCCTATTACTCAGCCTAAGGAAACAAGTACACTCC  
ACACATGCATAAAGGAAATCAAATGTTATTTTTAAGAAAATGGAAAATAAAAACTTTATAAACACC

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**FIGURE 225**

MRAPGCGRLVLPLLLLAAAAAEGDAKGLKEGETPGNFMEDEQWLSSISQYSGKIKHWNFRDEVEDDYIKSWED  
NQQGDEALDTTKDPCQKVKCSRHKVCIAQGYQRAMCISRKLEHRIKQPTVKLHGKNKDSICKPCHMAQLASVCGS  
DGHTYSSVCKLEQQACLSSKQLAVRCEGPCPCPTEQAATSTADGKPETCTGQDLADLGDRLRDWFQLLHENSQON  
GSASSVAGPASGLDKSLGASCKDSIGWMFSKLDTSADLFLDQTELAAINLDKYEVCIRPFFNSCDTYKDGRVSTA  
EWCFCFWREKPPCLAELERIQIQEAAKKKPGIFIPSCDEDEGYRKMQCDQSSGDCWCVDQLGLELTGTRTHGSPD  
CDDIVGFSGDFGSGVGWEDEEEKETEEAGEEAEEEGEAGEADDGGYIW

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**FIGURE 226A**

TTCCGGTGGCCTCTAGTGAGATCTGGAGGATCCAAGGATTCTGTAGCTACA**ATG**TTGTCAAGACTTTTTTCGAATGC  
ATGGCCTCTTTGTGGCCTCCCATCCCTGGGAAGTCATAGTGGGGACAGTGACACTGACCATCTGCATGATGTCCA  
TGAACATGTTTACTGGTAACAATAAGATCTGTGGTTGGAATTATGAATGTCCAAAAGTTTGAAGAGGATGTTTTGA  
GCAGTGACATTATAATTCTGACAATAACACGATGCATAGCCATCCTGTATATTTACTTCCAGTTCCAGAATTTAC  
GTCAACTTGGATCAAAATATATTTTGGGTATTGCTGGCCTTTTCACAATTTTCTCAAGTTTGTATTTCAGTACAG  
TTGTCAATTCATTCTTAGACAAAGAATTGACAGGCTTGAATGAAGCTTTGCCCTTTTCTACTTTTGATTGACC  
TTTCCAGAGCAAGCACATTAGCAAAGTTTGCCCTCAGTTCCAACCTCACAGGATGAAGTAAGGGAAAATATTGCTC  
GTGGAATGGCAATTTTAGGTCTACGTTTACCCTCGATGCTCTTGTGTAATGTCTTGTGATTGGAGTTGGTACCA  
TGTCAGGGGTACGTCAGCTTGAAATTAATGTGCTGCTTTGGCTGCATGTCAGTTCTTGCCAACTACTTCGTGTTCA  
TGACTTTCTTCCAGCTTGTGTGTCCTTGGTATTAGAGCTTTCTCGGGAAAGCCGCGAGGGTCGTCCAATTTGGC  
AGCTCAGCCATTTTGGCCGAGTTTGTAGAAGAAGAAGAAAATAAGCCGAATCCTGTAACCTCAGAGGGTCAAGATGA  
TTATGTCTCTAGGCTTGGTTCTTGTTCATGCTCACAGTCGCTGGATAGCTGATCCTTCTCCTCAAAACAGTACAG  
CAGATACTTCTAAGGTTTTCATTAGGACTGGATGAAAATGTGTCCAAGAGAATTGAACCAAGTGTTTTCCCTCTGGC  
AGTTTTATCTCTCTATAAATGATCAGCATGGATATTGAACAAGTTATTACCCTAAGTTTAGCTCTCCTTCTGGCTG  
TCAAGTACATCTTCTTTGAACAAACAGAGACAGAATCTACACTCTCATTAAAAAACCTATCACATCTCCTGTAG  
TGACACAAAAGAAAGTCCCAGACAATTGTTGTAGACGTGAACCTATGCTGGTCAGAAATAACCAGAAATGTGATT  
CAGTAGAGGAAGAGACAGGGATAAACCGAGAAAGAAAAGTTGAGGTTATAAAACCCTTAGTGGCTGAAACAGATA  
CCCCAAACAGAGCTACATTTGTGGTTGGTAACCTCTCCTTACTCGATACTTCATCAGTACTGGTGACACAGGAAC  
CTGAAATTGAACCTCCAGGAACCTCGGCCTAATGAAGAATGTCTACAGATACTTGGGAATGCAGAGAAAGGTG  
CAAAATTCCTTAGTGATGCTGAGATCATCCAGTTAGTCAATGCTAAGCATATCCAGCCTACAAGTTGGAAACTC  
TGATGGAACTCATGAGCGTGGTGTATCTATTGCGCGACAGTTACTTTCCAAGAAGCTTTCAGAACCTTCTTCTC  
TCCAGTACCTACCTTACAGGGATTATAATTACTCCTTGGTGATGGGAGCTTGTGTGAGAATGTTATTGGATATA  
TGCCCATCCCTGTTGGAGTGGCAGGACCCCTTTGCTTAGATGAAAAAGAATTTAGGTTCCAATGGCAACAACAG  
AAGGTTGTCTTGTGGCCAGCA**CCA**ATAGAGGCTGCAGAGCAATAGGTCTTGGTGGAGGTGCCAGCAGCCGAGTCC  
TTGCAGATGGGATGACTCGTGGCCAGTTGTGCGTCTTCCACGTGCTTGTGACTCTGCAGAAGTGAAAGCCTGGC  
TCGAAACATCTGAAGGGTTTCGCAGTGATAAAGGAGGCATTTGACAGCACTAGCAGATTGTCACGTCTACAGAAAC  
TTCATACAAGTATAGCTGGACGCAACCTTTATATCCGTTTCCAGTCCAGGTCAGGGGATGCCATGGGGATGAACA  
TGATTTCAAAGGGTACAGAGAAAGCACTTTCAAAACTTCACGAGTATTTCCCTGAAATGCAGATTCTAGCCGTTA  
GTGGTAACTATTGTACTGACAAGAAACCTGCTGCTATAAATTGGATAGAGGGAAGAGGAAAATCTGTTGTTTGTG  
AAGCTGTCAATCCAGCCAAGGTTGTGAGAGAAGTATTAAAGACTACCACAGAGGCTATGATTGAGGTCAACATTA  
ACAAGAATTTAGTGGGCTCTGCCATGGCTGGGAGCATAGGAGGCTACAACGCCCATGCAGCAAACATTGTCACCG  
CCATCTACATTGCCTGTGGACAGGATGCAGCACAGAATGTTGGTAGTTCAAACGTATTACTTTAATGGAAGCAA  
GTGGTCCCACAAATGAAGATTTATATATCAGCTGCACCATGCCATCTATAGAGATAGGAACGGTGGGTGGTGGGA  
CCAACCTACTACCTCAGCAAGCCTGTTTGCAGATGCTAGGTGTTCAAGGAGCATGCAAAGATAATCCTGGGGAAA  
ATGCCCGGCAGCTTGCCCGAATTGTGTGTGGGACCGTAATGGCTGGGGAATTGTCACTTATGGCAGCATTGGCAG  
CAGGACATCTTGTCAAAAGTCACATGATTCAACACAGGTCGAAGATCAATTTACAAGACCTCCAAGGAGCTTGCA  
CCAAGAAGACAGCC**TGA**ATAGCCCGACAGTTCTGAACCTGGAACATGGGCATTGGGTTCTAAAGGACTAACATAAA  
ATCTGTGAATTAAGGCTCAATGCATTGCTTGTGGAGGATGAATAAATGTGATCACTGAGACAGCCACTTGG  
TTTTTGGCTCTTTCAGAGAGGTCTCAGGTTCTTTCCATGCAGACTCCTCAGATCTGAACACAGTTTAGTGCTTTA  
CATGCTGTGCTCTTTGAAGAGATTTCAACAAGAATATTGTATGTTAAAGCATCAGAGATGGTAATCTACAGCTCA  
CCTCTGAAAGCAAAATATAAGCTGGGAAAAAGTTTTGATGAAATCTTGAAGTTTCATGGTGATCAGTGCAATTGA  
CCTTCTCCCTCACTCCTGCCAGTTGAAAATGGATTTTTAAATTATACTGTAGCTGATGAAACTCCTGATTTTGTA  
GTTAATTTATTAAGTCTGGGATGTAGA**ACT**TTCAAGAAGTAAGAGCTAAGTTCTAAGTTTCATGTTTGTAATTAAT  
ACTTCATTTGGTGCTGGTCTATTTTGATTTTGGGGGGTAATCAGCATTATTCTTCAGAAGGGGACCTGTTTTCTT  
CAAGGGAAGAAACACTCTTATTCCCAAACCTACAGAATAATGTGTTAAACATGCTAAATAGTTCTATCAGGAAAC  
AAATCACTGTATTTATCTCCGAGGCTATTTGTTTCAAGAGAGGCTTTTGTGTTAAATATAAATGTTTAAATATAAA  
TGTTTGTCTGGATTGGCTATAACATGTCTTTCAGCATTAGGCTTTTAAGAAACACAGGGTTTTGTATTCTTTACT  
AAAGATATCAGAGCTCTTAATGTTGCTTAGATGAGGGTGACTGTCAAGTACAAGCAAGACTGGGACCTTAGAAAT

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**FIGURE 226B**

CATTGTAGAAACACAGTTTTGAAAGATTTTTACCATGTCTCTAAGCCAACTTTAATTGCTTAAAAGACATTTTAA  
 TTTAGTTGAAAAATCTAGTTTTTTTTGTAAACTGTACCAAATCTGTATATGTTGTAATAAACTTATGCTAGTTT  
 ATTGGAAGTGTTCAAGAAATAAAAAATCAACTTGTGTACTGATAAAATACTCTAGCCTGGGCCAGAGAAGATAATG  
 TTCTTTAATGTTGTCAGGAAACCCCTGGCTTGCTTGCCGAGCCTAATGAAAGGGAAAGTCAGCTTTCAGAGCCAGT  
 GAAGGAGCCACGTGAATGGCCCTAGAACTGTGCCTAGTTTCTGTGGCCAGGAGGTTGGTGACTGAAACATTCACA  
 CAGGGCTCTTGATGGACCCACGAACGCTCTTAGCTTCTCAGGGGGTCAGCAGAGTTATTGAATCTTAATTTTT  
 TTTAATGTACAAGTTTTGTATAAATAATAAAGAACTCCTTATTTTGTATTACATCTAATGCTTAAGTGTGCTCT  
 TGGAAAGCTGATGATGTCTCTTGTAGAGATGACTCTGAAAAACATTCCAGGAAACCATGGCAGCATGGAGAGCCT  
 CTTAGTGATTGTGTCTGCATTGTTATTGTGGAAGATTTACCTTTTTCTGTTGTACGTAAAGCTTAAATTACTTTTG  
 TTGTGACTTTTTAGCCAGTGACTTTTTCTGAGCTTTTCATGGAAGTGGCAGTGAAAAATATGTTGAGTGTTCAA  
 AAAGTGACTGTAATTAATATCTTGCTGGATTAATGTTTTGTACAATTACTAAATTGTATACATTTTGTATAGAA  
 TACTTTTTTCTAGTTTCAGTAAATAATGAAAAGGAAGTTAATACCA

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**FIGURE 227**

MLSRLFRMHGLFVASHPWEVIVGTVTLTICMMSNMFTGNNKICGWNYECPKFEEDVLSSDIIILITITRCIAILY  
IYFQFQNLRLQLGSKYILGIAGLFTIFSSVFSTVVIHFLDKELTGLNEALPFFLLIDLSRASTLAKFALSSNSQ  
DEVRENIARGMAILGPTFTLDALVECLVIGVGTMSGVRQLEIMCCFGCMSVLANYFVFMFFPACVSLVLELSRE  
SREGRPIWQLSHFARVLEEEENKPNPVTQRVKMIMSLGLVLVHAHSRWIADPSPQNSTADTSKVSGLDENVSKR  
IEPSVSLWQFYLSKMISMDIEQVITLSLALLLAVKYIFFEQTETESTLSLKNPITSPVVTQKKVPDNCRRPML  
VRNNQKCDVSVEETGINRERKVEVIKPLVAETDTPNRATFVVGNSSLLDTSSVLVTQEPEIELPREPRPNEECLQ  
ILGNAEKGAFLSDAEIIQLVNAKHIPAYKLETLMETHERGVSIRRQLLSKKLSEPSSLQYLPYRDYNYSVMGA  
CCENVIGYMPIPVGVAGPLCLDEKEFQVPMATTEGCLVASTNRGCRAIGLGGGASSRVLADGMTRGPVVRPRAC  
DSAEVKAWLETSEGFAVIKEAFDSTSFRARLQKLHTSIAGRNLIRFQSRSGDAMGMNMISKGTEKALS KLHEYF  
PEMQILAVSGNYCTDKKPAAINWIEGRGKSVVCEAVIPAKVVREVLKTTTEAMIEVNINKNLVGSAMAGSIGGYN  
AHAANIVTAIYIACGQDAAQNVGSSNCITLMEASGPTNEDLYISCTMPSIEIGTVGGGTNLLPQQACLQMLGVQG  
ACKDNPGENARQLARIVCGTVMAGELSLMAALAAGHLVKSHMIHNRSKINLQDLQGACTKKTA



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**FIGURE 228A**

TTCGGTGGCCTCTAGTGAGATCTGGAGGATCCAAGGATTCTGTAGCTACAAATGTTGTCAAGACTTTTTCGAATGC  
ATGGCCTCTTTGTGGCCTCCCATCCCTGGGAAGTCATAGTGGGACAGTGACACTGACCATCTGCATGATGTCCA  
TGAACATGTTTACTGGTAACAATAAGATCTGTGGTTGGAATTATGAATGTCCAAAGTTTGAAGAGGATGTTTTGA  
GCAGTGACATTATAATTCTGACAATAACACGATGCATAGCCATCCTGTATATTTACTTCCAGTTCCAGAATTTAC  
GTCAACTTGGATCAAAATATATTTTGGGTATTGCTGGCCTTTTCACAATTTTCTCAAGTTTTGTATTCAGTACAG  
TTGTCACTTCACTTCTTAGACAAAGAATTGACAGGCTTGAATGAAGCTTTGCCCTTTTCTACTTTTGATTGACC  
TTTCCAGAGCAAGCACATTAGCAAAGTTTGGCCTCAGTTCCAACCTCACAGGATGAAGTAAGGGAAAATATTGCTC  
GTGGAATGGCAATTTTAGGTCTACGTTTACCCTCGATGCTCTTGTGTAATGTCTTGTGATTGGAGTTGGTACCA  
TGTCAGGGGTACGTCAGCTTGAAATTATGTGCTGCTTTGGCTGCATGTCAGTTCTTGCCAACTACTTCGTGTTCA  
TGACTTTCTTCCCAGCTTGTGTGTCCTTGGTATTAGAGCTTTCTCGGGAAAGCCGCGAGGGTCGTCCAATTTGGC  
AGCTCAGCCATTTTGGCCGAGTTTTAGAAGAAGAAGAAAATAAGCCGAATCCTGTAACCTCAGAGGGTCAAGATGA  
TTATGTCTCTAGGCTTGGTTCTTGTTCATGCTCACAGTCGCTGGATAGCTGATCCTTCTCCTCAAAACAGTACAG  
CAGATACTTCTAAGGTTTCATTAGGACTGGATGAAAATGTGTCCAAGAGAATTGAACCAAGTGTTTTCCCTCTGGC  
AGTTTTATCTCTCTAAAATGATCAGCATGGATATTGAACAAGTTATTACCCTAAGTTTAGCTCTCCTTCTGGCTG  
TCAAGTACATCTTCTTTGAACAAACAGAGACAGAATCTACACTCTCATTAAAAAACCTATCACATCTCCTGTAG  
TGACACAAAAGAAAGTCCCAGACAATTGTTGTAGACGTGAACCTATGCTGGTCAGAAATAACCAGAAATGTGATT  
CAGTAGAGGAAGAGACAGGGATAAACCCGAGAAAGAAAAGTTGAGGTTATAAAACCCTTAGTGGCTGAAACAGATA  
CCCCAAACAGAGCTACATTTGTGGTTGGTAACCTCCTTACTCGATACTTCATCAGTACTGGTGACACAGGAAC  
CTGAAATTGAACCTCCCAGGGAACCTCGGCCTAATGAAGAATGTCTACAGATACTTGGGAATGCAGAGAAAGGTG  
CAAAATTCCTTAGTGATGCTGAGATCATCCAGTTAGTCAATGCTAAGCATATCCAGCCTACAAGTTGGAAACTC  
TGATGGAAACTCATGAGCGTGGTGTATCTATTGCGCGACAGTTACTTTCCAAGAAGCTTTCAGAACCTTCTTCTC  
TCCAGTACCTACCTTACAGGGATTATAATTACTCCTTGGTGATGGGAGCTTGTGTGAGAATGTTATTGGATATA  
TGCCCATCCCTGTTGGAGTGGCAGGACCCCTTTGCTTAGATGAAAAAGAATTTAGGTTCCAATGGCAACAACAG  
AAGGTTGTCTTGTGGCCAGCACCAATAGAGGCTGCAGAGCAATAGGTCTTGGTGGAGGTGCCAGCAGCCGAGTCC  
TTGCAGATGGGATGACTCGTGGCCAGTTGTGCGTCTTCCACGTGCTTGTGACTCTGCAGAAGTGAAAGCCTGGC  
TCGAAACATCTGAAGGTTTCGCAGTGATAAAGGAGGCATTTGACAGCACTAGCAGATTTGCACGTCTACAGAAAC  
TTCATACAAGTATAGCTGGACGCAACCTTTATATCCGTTTCCAGTCCAGGTCAGGGGATGCCATGGGGATGAACA  
TGATTTCAAAGGTTACAGAGAAAGCACTTTCAAACCTTACAGAGTATTTCCCTGAAATGCAGATTCTAGCCGTTA  
GTGGTAACTATTGTACTGACAAGAAACCTGCTGCTATAAATTGGATAGAGGGAAGAGGAAAATCTGTTGTTTGTG  
AAGCTGTCAATTCCAGCCAAGGTTGTGAGAGAAGTATTAAAGACTACCACAGAGGCTATGATTGAGGTCAACATTA  
ACAAGAATTTAGTGGGCTCTGCCATGGCTGGGAGCATAGGAGGCTACAACGCCCATGCAGCAAACATTGTCACCG  
CCATCTACATTGCCTGTGGACAGGATGCAGCACAGAATGTTGGTAGTTCAAACGTATTACTTTAATGGAAGCAA  
GTGGTCCCACAAATGAAGATTTATATATCAGCTGCACCATGCCATCTATAGAGATAGGAACGGTGGGTGGTGGGA  
CCAACCTACTACCTCAGCAAGCCTGTTTGAGATGCTAGGTGTTCAAGGAGCATGCAAAGATAATCCTGGGGAAA  
ATGCCCCGGCAGCTTGCCCCGAATTGTGTGTGGGACCGTAATGGCTGGGGAATTGTCACCTTATGGCAGCATTGGCAG  
CAGGACATCTTGTCAAAAGTCACATGATTCAACAACAGGTGGAAGATCAATTTACAAGACCTCCAAGGAGCTTGCA  
CCAAGAAGACAGCCTGAATAGCCCGACAGTTCTGAACTGGAACATGGGCATTGGGTTCTAAAGGACTAACATAAA  
ATCTGTGAATTAAGGCTCAATGCATTGTCTTGTGGAGGATGAATAAATGTGATCACTGAGACAGCCACTTGG  
TTTTTGGCTCTTTCAGAGAGGTCTCAGGTTCTTTCCATGCAGACTCCTCAGATCTGAACACAGTTTAGTGCTTTA  
CATGCTGTGCTCTTTGAAGAGATTTCAACAAGAATATTGTATGTTAAAGCATCAGAGATGGTAATCTACAGCTCA  
CCTCTGAAAGCAAAATAAGCTGGGAAAAAAGTTTTGATGAAATTCCTGAAGTTCATGGTGATCAGTGCAATTGA  
CCTTCTCCCTCACTCCTGCCAGTTGAAAATGGATTTTTAAATTATACTGTAGCTGATGAAACTCCTGATTTTTGTA  
GTTAATTTATTAAGTCTGGGATGTAGAACTTCAAGAAGTAAGAGCTAAGTTCTAAGTTTATGTTTGTAAATTAAT  
ACTTCATTTGGTGCTGGTCTATTTTGATTTTGGGGGTAATCAGCATTATTCTTCAGAAGGGGACCTGTTTTCTT  
CAAGGGAAGAAACACTCTTATCCCAAACACAGAATAATGTGTTAAACATGCTAAATAGTTCTATCAGGAAAC  
AAATCACTGTATTTATCTCCGAGGCTATTTGTTTCAAGAGAGGCCTTTTGTTTAAATATAAATGTTTAAATATAAA  
TGTTTGTCTGGATTGGCTATAACATGTCTTTCAGCATTAGGCTTTTAAAGAAACACAGGGTTTTGTATTCTTTACT  
AAAGATATCAGAGCTCTTAATGTTGCTTAGATGAGGGTGACTGTCAAGTACAAGCAAGACTGGGACCTTAGAAAT

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**FIGURE 228B**

CATTGTAGAAACACAGTTTTGAAAGATTTTTACCATGTCTCTAAGCCAACTTTAATTGCTTAAAAGACATTTTTA  
TTTAGTTGAAAAATCTAGTTTTTTTTTGTAACGTGTACCAAATCTGTATATGTTGTAATAAACTTATGCTAGTTT  
ATTGGAAGTGTTCAAGAAATAAAAATCAACTTGTGTACTGATAAAATACTCTAGCCTGGGCCAGAGAAGATAATG  
TTCTTTAATGTTGTCAGGAAACCCTGGCTTGCTTGCCGAGCCTAATGAAAGGGAAAGTCAGCTTTCAGAGCCAGT  
GAAGGAGCCACGTGAATGGCCCTAGAAGTGTGCCTAGTTCCCTGTGGCCAGGAGGTTGGTGACTGAAACATTCACA  
CAGGGCTCTTGGATGGACCCACGAACGCTCTTAGCTTCTCAGGGGGTCAGCAGAGTTATTGAATCTTAATTTTT  
TTAATGTACAAGTTTTGTATAAATAATAAAGAACTCCTTATTTTTGTATTACATCTAATGCTTAAGTGTGCTCT  
TGGAAGCTGATGATGTCTCTTGTAGAGATGACTCTGAAAAACATTCCAGGAAACCATGGCAGCATGGAGAGCCT  
CTTAGTGATTGTGCTGCTGATTGTTATTGTGGAAGATTTACCTTTTTCTGTTGTACGTAAAGCTTAAATTACTTTG  
TTGTGACTTTTTAGCCAGTGACTTTTTCTGAGCTTTTCATGGAAGTGGCAGTGAAAAATATGTTGAGTGTTCAA  
AAAGTGACTGTAATTAATATCTTGCTGGATTAATGTTTTGTACAATTACTAAATTGTATACATTTTGTTATAGAA  
TACTTTTTTCTAGTTTCAGTAAATAATGAAAAGGAAGTTAATACCA

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**FIGURE 229**

MLSRLFRMHGLFVASHPWEVIVGTVTLTICMMSNMFTGNKICGWNYECPKFEEDVLSSDIIILTITRCIAILY  
IYFQFNLRQLGSKYILGIAGLFTIFSSVFSTVVIHFLDKELTGLNEALPFFLLIDLSRASTLAKFALSSNSQ  
DEVRENIARGMAILGPTFTLDALVECLVIGVGTMSGVRQLEIMCCFGCMSVLANYFVFMFFPACVSLVLELSRE  
SREGRPWQLSHFARVLEEEENKPNPVTQRVKMIMSLGLVLVHAHSRWIADPSPQNSTADTSKVSGLDENVSKR  
IEPSVSLWQFYLSKMISMDIEQVITLSLALLLAVKYIFFEQTETESTLSLKNPITSPVVTQKKVPDNCRRPML  
VRNNQKCDVVEEETGINRERKVEVIKPLVAETDTPNRATFVVGNSLLDTSSVLVTQEPEIELPREPRPNEECLQ  
ILGNAEKGAFLSDAEIIQLVNAKHIPAYKLETLMETHERGVSI RRQLLSKKLSEPSSLQYLPYRDYNYSVMGA  
CCENVIGYMPIPVGVAGPLCLDEKEFQVPMATTEGCLVASTNRGCRAIGLGGGASSRVLADGMTRGPVVRLPRAC  
DSAEVKAWLETSEGFAVIKEAFDSTSFRARLQKLHTSIAGRNL YIRFQSRSGDAMGMNMISKGTEKALSKLHEYF  
PEMQILAVSGNYCTDKKPAAINWIEGRGKSVVCEAVIPAKVVREVLKTTTEAMIEVNINKNLVGSAMAGSIGGYN  
AHAANIVTAIYIACGQDAAQNVGSSNCITLMEASGPTNEDLYISCTMPSIEIGTVGGGTNLLPQQACLQMLGVQG  
ACKDNPGENARQLARIVCGTVMAGELSLMAALAAGHLVKSHMIHNRSKINLQDLQGACTKKTA

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**FIGURE 230**

GGCACGAGGAAGATATATGGATACAGATTATATATATATATACATATTTTCCTTAATAGAGGAATGCTTCATATT  
 ATTCAAAAATTATATCCTGATCACCTTTTTTTGTTTTTATTGTAAAGTATCTCTGCTTTATCCATTGCTGAATT  
 CGATAGGATGTTGAAATGCTGGTCACCAAAAAGGAACTGAGCAAATTCATTTCACAACATCAAACTTCAGC  
 TTCTCATAGTAAAAAGCTGAATGTTACTAATATTTTTCATATCTAAAAAAAATTCTTAGCAATGAAATTGCTGT  
 TAAAACACAAATTTCAATCAAATACTTTTGTGTATAGAAAATATGTATAGTAGGTAGATAGAAAAGTATAAAATG  
 TTTGTTGAAGTATCTTATTTTGAATGAATGGAGAAATGCCAAAGATGAATCCTTCACTGCATTATGAAAATATT  
 TCACATGTTCTCTTGGACTTTATATAAATCTGTAATAGATTTTGAATTTGAAAAATTCTTTGTGAAGGTCTTCTA  
 AAAGTGTTCCAATTTATCTCAAAATCTCCATATATAGGATCAGCTTAAAAACATAAAGAAAACCTTGAATTTCTCA  
 AATGTTTGAGATGTTCAAGACAGTCTCTTAATCCGTTAATGCTTTTGGAAACAATTGACAAAATAGGGCAGGCAG  
 CTCATCTCATGTCCTGAAGTTGGAATTTAAATAATTCCTATTTGCAAATTAGAATGACAGTGTTGGAATTTGGAG  
 GCAGTAGTTGAGCATATTCTCTAGTATATAGCTACACCTTTAATAAAATGAAGGAATGTCTTCAATCATATTTTA  
 GTGGGCTATTTATAAATAGTCTTGAAGTCAATTTAGTTTATTTATTTAAAAGATAATGCATCCTGAAAGGGATCA  
 TTTATGAATAACAATCTGAAGTCTTTTCATAAAAAAATTAATAAACTTTAGTTGTACATTTAGCCAGTGTTATT  
 TGAAGTATGTAACTTTTAAATATTAAGTGTCTTGTATGATTAGAATATGTGAATGAGTAACTTATTTGTATCA  
 GGAATGTTTTGGTACTGTGTTTTCACTCAAACCACTGACTTAACAGATACTGCTGTGTATAACATGTACTAAATA  
 TTACAGTTATTGTGCATAACAGATTGTTCTCTTATATTTGTGTGTATACAGGCAATTCATGTTTTAATGTAAAT  
 AAATACCATTTTGCAGTTAAAAAAA

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**FIGURE 231**

GGGGGGGGGGGACCACTTGGCCTGCCTCCGTCCCGCCGCGCCACTTGGCCTGCCTCCGTCCCGCCGCGCCACTT  
CGCCTGCCTCCGTCCCCCGCCGCGCGCC**ATG**CCTGTGGCCGGCTCGGAGCTGCCGCGCCGGCCCTTGCCCCC  
GCCGCACAGGAGCGGGACGCCGAGCCGCGTCCGCCGCACGGGGAGCTGCAGTACCTGGGGCAGATCCAACACATC  
CTCCGCTGCGGCGTCAGGAAGGACGACCGCACGGGCACCGGCACCCTGTCCGTATTCCGGCATGCAGGCGCGCTAC  
AGCCTGAGAGATGAATTCCCTCTGCTGACAACCAAACGTGTGTTCTGGAAGGGTGTTTTGGAGGAGTTGCTGTGG  
TTTATCAAGGGATCCACAAATGCTAAAGAGCTGTCTTCCAAGGGAGTGAAAATCTGGGATGCCAATGGATCCCGA  
GACTTTTTGGACAGCCTGGGATTCTCCACCAGAGAAGAAGGGGACTTGGGCCCAGTTTATGGCTTCCAGTGGAGG  
CATTTTGGGGCAGAATACAGAGATATGGAATCAGATTATTCAGGACAGGGAGTTGACCAACTGCAAAGAGTGATT  
GACACCATCAAAACCAACCCTGACGACAGAAGAATCATCATGTGCGCTTGGAATCCAAGAGATCTTCCTCTGATG  
GCGCTGCCTCCATGCCATGCCCTCTGCCAGTTCTATGTGGTGAACAGTGAGCTGTCTTGCCAGCTGTACCAGAGA  
TCGGGAGACATGGGCCCTCGGTGTGCCTTTCAACATCGCCAGCTACGCCCTGCTCACGTACATGATTGCGCACATC  
ACGGGCCTGAAGCCAGGTGACTTTATACACACTTTGGGAGATGCACATATTTACCTGAATCACATCGAGCCACTG  
AAAATTCAGCTTCAGCGAGAACCCAGACCTTTCCCAAAGCTCAGGATTCTTCGAAAAGTTGAGAAAATTGATGAC  
TTCAAAGCTGAAGACTTTCAGATTGAAGGGTACAATCCGCATCCAACATATTAATAATGGAATGGCTGTT**TAG**GGT  
GCTTTCAAAGGAGCTTGAAGGATATTGTCAGTCTTTAGGGGTTGGGCTGGATGCCGAGGTAAAAGTTCTTTTTGC  
TCTAAAAGAAAAAGGAAGTAAAGTCAAAATCTGTCCGTGACCTATCAGTTATTAATTTTAAGGATGTTGCCACT  
GGCAAATGTAAGTGTGCCAGTTCTTTCCATAATAAAAGGCTTTGAGTTAACTCACTGAGGGTATCTGACAATGCT  
GAGGTTATGAACAAAGTGAGGAGAATGAAATGTATGTGCTCTTAGCAAAAACATGTATGTGCATTTCAATCCAC  
GTACTTATAAAGAAGGTTGGTGAATTTACAAGCTATTTTTGGAATATTTTAGAATATTTTAAGAATTTACAA  
GCTATTCCCTCAAATCTGAGGGAGCTGAGTAACACCATCGATCATGATGTAGAGTGTGGTTATGAACTTTATAGT  
TGTTTTATATGTTGCTATAATAAAGAAGTGTCTGC

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**FIGURE 232**

MPVAGSELPRRPLPPAAQERDAEPRPPHGELQYLGQIQHILRCGVRKDDRTGTGTLVFGMQARYSLRDEFPLLT  
TKRVFWKGVLEELLWFIKGSTNAKELSSKGVKIWDANGSRDFLDSLGFSTREEGDLGPVYGFQWRHFGAEYRDME  
SDYSGQGVDQLQRVIDTIKTNPDDRRRIIMCAWNPRDLPLMALPPCHALCQFYVVNSELSCQLYQRSGDMGLGVPF  
NIASYALLTYMIAHITGLKPGDFIHTLGDAHIYLNHIEPLKIQLQREPRPFPKLRIILRKVEKIDDFKAEDFQIEG  
YNPHPTIKMEMAV

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**FIGURE 233**

CTATCCGCGCGCTCGCCGGCCAGTCCTGTCGCTGACGGGAGGATCTGAAGCCGGCCGAGGTCAAAGAGTAAA  
**ATGA**AGTACATTCTGGTTACTGGTGGTGTATATCAGGAATTGAAAAAGGAATCATTGCCAGCAGTGTGGGCACA  
ATACTCAAGTCATGTGGTTTACATGTAACCTCAATCAAAATTGACCCCTACATTAACATTGATGCAGGAACATTC  
TCTCCTTATGAGCATGGTGAGGTTTTTGTGCTGGATGATGGTGGGGAAGTAGACCTTGACCTGGGTAACATATGAG  
CGGTTCCCTTGACATCCGCCTCACCAAGGACAATAATCTGACCACTGGAAAGATATACCAGTATGTCATTAACAAG  
GAACGGAAAGGAGATTACTTGGGGAAAACCTGTCCAAGTTGTCCCTCATATCACAGATGCAATCCAGGAGTGGGTG  
ATGAGACAGGCGTTAATACCTGTAGATGAAGATGGCCTGGAAACCTCAAGTGTGTGTTATTGAGCTTGGTGGAAAC  
GTGGGGGACATAGAAAAGCATGCCCTTTATTGAGGCCTTCCGTCAGTTCCAATTCAAGGTCAAAGAGAGAACTTT  
TGTAACATCCACGTCAGTCTAGTTCCCCAGCCAAGTTCAACAGGGGAACAGAAGACTAAACCTACCCAGAATAGT  
GTTCCGGGAACCTAGAGGACTTGGGCTTTCCCCAGATCTGGTTGTATGCAGGTGCTCAAATCCACTTGACACATCA  
GTGAAGGAGAAAAATATCAATGTTCTGCCATGTTGAGCCTGAACAAGTGATCTGTGTCCACGATGTCTCATCCATC  
TACCGAGTCCCCTTGTGTTAGAGGAGCAAGGGGTTGTAGATTATTTTCTTGAAGACTTGACCTTCCTATTGAG  
AGGCAGCCAAGAAAAATGCTGATGAAATGGAAAGAGATGGCTGACAGATATGATCGCTTGCTGGAGACCTGCTCT  
ATTGCCCTTGTGGCGAAATACACCGAGTTCTCAGACTCCTATGCCTCTGTCTATTAAGGCTCTGGAGCATTCTGCA  
CTGGCCATCAACCACAAATTGGAAATCAAGTACATAGATTCTGCGGACTTGGAGCCCATCACCTCGCAAGAAGAG  
CCCGTGCGCTACCACGAAGCTTGGCAGAAGCTCTGTAGTGCTCATGGAGTGCTGGTTCCAGGAGGATTTGGTGT  
CGAGGAACAGAAGGAAAAATCCAAGCAATTGCCTGGGCTCGGAATCAGAAAAAGCCTTTTTTGGGCGTGTGCTTA  
GGGATGCAGTTGGCAGTGGTTGAATTCTCAAGAAACGTGCTGGGATGGCAAGATGCCAATTCTACAGAGTTTGAC  
CCTACGACCAGTCATCCCGTGGTCTGTAGACATGCCAGAACACAACCCAGGGCAGATGGGCGGAACCATGAGGCTG  
GGCAAGAGGAGAACCCTGTTCCAGACCAAGAACTCAGTCATGAGGAACTCTATGGAGACGCAGACTACTTGAA  
GAGAGGCACCGCCACCGATTTGAGGTGAATCCAGTCTGGAAAAAGTGTTTGAAGAACAAGGCTTGAAGTTTGT  
GGCCAAGATGTTGAAGGAGAGAGAATGGAAATTGTGGAGTTAGAAGATCATCCCTTTTTTGTGGGGTTTCACTAC  
CACCTTGAGTTCTGTCCAGGCCTATCAAGCCCTCCCCACCATACTTTGGCCTCCTCTGGCCTCTGTGGGGCGG  
CTCTCACATTACCTCCAGAAAGGCTGCAGGCTCTCACCAGGGACACCTATAGTGACAGGAGTGGAAGCAGCTCC  
CCTGACTCTGAAATCACCGAAGTGAAGTTTCCATCAATAAATCATGAC**TGA**TCTTGTAGCGGATGATTCTTCAAG  
AGACCTTCAAACCTGGGTAGAGTTTACAGCTCTGACTTTACACTCGGCTTTGGAGACTTTCTTTAAATTATGTT  
TTTATTAAGATTATTTTATTATGCGGAAAGGTATTTGGGAACTTGTCACTTGCATGTCCATCACGTGTACTGG  
CTCCTCTGTGGTGTCTGCCTGTTGCGTGACACTCTCCTTGCACTTCTTGAGTTGCGGCAGAACATCGCGATGGGA  
ACCGATGGTGGGTGGGGCTGCAGATGTCCCATCGGTACCTTGTTTCTCAACTACCTCGCATCATTGCAGATCG  
TAGCGCGTTGCCTGTCGCTTTCCCTTGGATACCTAGACCGTTATAAAGTGTGCCACATGGACTTACCGAGCATGG  
AGAGAGGATTTTAGCTAGGATTTGAACACTTGGTGTGTTGGAAACCTCAGGGTATTGCTTGCCACTAAGCCATGAAA  
CCAGAGACAAAATCTCTATACTGCCCTGAGTTGGGGGGAATTCTCAGTGCCAACTGTGGCTGGTCTCTATTCAA  
GGGACGGTCAGTTTGGTGTCAACATGAAACACCAAGATGTCTGTCTCTGAAGCGTGATTTTAAATCCCCATGCC  
TGTGCGTGCGCTTCTATTCTAGGGCTGGGAAACACTCCTTGCAATCAAGGGTCACTTACAGAACAAAGAATCT  
TTTGGGGGAAACTTCTCTAAAACCTCTCATATATAGACAGCTTTGACTGGAGGGTCCATTTTTCTTCCAGGAT  
GGTGTACTGCAGTTGAAGGGCAATATGAAGTTACTTTCTTAATGTGACCTAGCAATAGGCATAGCTACGTGGCA  
CTATATTCTGGCCAGACTCGATGTGTACTCTAACTTAAGAAATAAATCAGTAAGGCAG

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**FIGURE 234**

MKYILVTGGVISGIGKGIIASSVGTILKSCGLHVTSIKIDPYINIDAGTFSPYEHGEVFLDDGGEVDLDLGNYE  
RFLDIRLTKDNNLTGKIYQYVINKERKGYLGKTVQVVP HITDAIQEWVMRQALIPVDEEDGLEPQVCVIELGGT  
VGDIESMPFIEAFRQFQFKVKRENF CNIHVSLVPQPSSTGEQKTKPTQNSVREL RGLGLSPDLVVCRC SNPLDTS  
VKEKISMFC HVEPEQVICVHDVSSIYRVPLLLLEE QGVVDYFLRRDLPIERQPRKMLMKWKEMADRYDRLLETCS  
IALVAKYTEFSDSYASVIKALEHSALAINHKLEIKYIDSADLEPITSQEEP VRYHEAWQKLCSAHGVLVPGGFGV  
RGTEGKIQAIAWARNQKKPFLGVCLGMQLAVVEFSRNVLGWQDANSTEFDPTTSHPVVDMPEHNPGQMGGMTML  
GKRRTLFQTKNSVMRKLYGDADYLEERHRHRFEVNPVWKKCLEEQGLKFVGQDVEGERMEIVELEDHPFFVGVQY  
HPEFLSRPIKPSPPYFGLLLASVGRLSHYLQKGCRLSPRDTYSDRSGSSSPDSEITELKFPSINH D



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**FIGURE 235**

GC GCCCAGTCGACGCTGAGCTCCTCTGCTACTCAGAGTTGCAACCTCAGCCTCGCTATGGCTCCCAGCAGCCCC  
CGGCCCGCGCTGCCCGCACTCCTGGTCCTGCTCGGGGCTCTGTTCCCAGGACCTGGCAATGCCAGACATCTGTG  
TCCCCCTCAAAAGTCATCCTGCCCCGGGGAGGCTCCGTGCTGGTGACATGCAGCACCTCCTGTGACCAGCCCAAG  
TTGTTGGGCATAGAGACCCCGTTGCCTAAAAAGGAGTTGCTCCTGCCTGGGAACAACCGGAAGGTGTATGAACTG  
AGCAATGTGCAAGAAGATAGCCAACCAATGTGCTATTCAAACCTGCCCTGATGGGCAGTCAACAGCTAAAACCTTC  
CTCACCGTGTACTGGACTCCAGAACGGGTGGAAC TGGCACCCCTCCCCCTCTTGGCAGCCAGTGGGCAAGAACCTT  
ACCCTACGCTGCCAGGTGGAGGGTGGGGCACCCCGGGCAACCTCACCGTGGTGCTGCTCCGTGGGGAGAAGGAG  
CTGAAACGGGAGCCAGCTGTGGGGGAGCCCGCTGAGGTACAGACCACGGTGCTGGTGAGGAGAGATCACCATGGA  
GCCAATTTCTCGTGCCGCACTGAACTGGACCTGCGGCCCAAGGGCTGGAGCTGTTTGAGAACACCTCGGCCCCC  
TACCAGCTCCAGACCTTTGTCCCTGCCAGCGACTCCCCACAACCTTGTCAGCCCCCGGGTCTTAGAGGTGGACAG  
CAGGGGACCGTGGTCTGTTCCCTGGACGGGCTGTTCCAGTCTCGGAGGCCCAGGTCCACCTGGCACTGGGGGAC  
CAGAGGTTGAACCCACAGTCACCTATGGCAACGACTCCTTCTCGGCCAAGGCCTCAGTCAGTGTGACCGCAGAG  
GACGAGGGGCACCCAGCGGTGACGTGTGCAGTAATACTGGGGAACAGAGCCAGGAGACACTGCAGACAGTGACC  
ATCTACAGCTTTCCGGCGCCCAACGTGATTCTGACGAAGCCAGAGGTCTCAGAAGGGACCGAGGTGACAGTGAAG  
TGTGAGGCCCCACCTAGAGCCAAGGTGACGCTGAATGGGGTTCCAGCCCAGCCACTGGGCCCCAGGGCCCCAGCTC  
CTGCTGAAGGCCACCCAGAGGACAACGGGCGCAGCTTCTCCTGCTCTGCAACCTTGAGGTGGCCGGCCAGCTT  
ATACACAAGAACCAGACCCGGGAGCTTCGTGTCTGTATGGCCCCGACTGGACGAGAGGGATTGTCCGGGAAAC  
TGGACGTGGCCAGAAAATTCCCAGCAGACTCCAATGTGCCAGGCTTGGGGGAACCCATTGCCCGAGCTCAAGTGT  
CTAAAGGATGGCACTTTCCCACTGCCCCATCGGGGAATCAGTGA CTGCTACTCGAGATCTTGAGGGCACCTACCTC  
TGTCGGGCCAGGAGCACTCAAGGGGAGGTACCCGCGAGGTGACCGTGAATGTGCTCTCCCCCGGTATGAGATT  
GTCATCATCACTGTGGTAGCAGCCGAGTCATAATGGGCACTGCAGGCCTCAGCACGTACCTCTATAACGCCAG  
CGGAAGATCAAGAAATACAGACTACAACAGGCCCAAAAAGGGACCCCCATGAAACCGAACACACAAGCCACGCCT  
CCCTGAACCTATCCCGGGACAGGGCCTCTTCCTCGGCCTTCCCATATTGGTGGCAGTGGTGCCACACTGAACAGA  
GTGGAAGACATATGCCATGCAGCTACACCTACCGGCCCTGGGACGCCGGAGGACAGGGCATTGTCTCAGTCAGA  
TACAACAGCATTTGGGGCCATGGTACCTGCACACCTAAAACACTAGGCCACGCATCTGATCTGTAGTCACATGAC  
TAAGCCAAGAGGAAGGAGCAAGACTCAAGACATGATTGATGGATGTTAAAGTCTAGCCTGATGAGAGGGGAAGTG  
GTGGGGGAGACATAGCCCCACCATGAGGACATACAACTGGGAAATACTGAAACTTGCTGCCTATTGGGTATGCTG  
AGGCCACAGACTTACAGAAGAAGTGGCCCTCCATAGACATGTGTAGCATCAAAACACAAAGGCCACACTTCCT  
GACGGATGCCAGCTTGGGCACTGCTGTCTACTGACCCCAACCCCTTGATGATATGTATTTATTATTGTTATTTT  
ACCAGCTATTTATTGAGTGTCTTTTATGTAGGCTAAATGAACATAGGTCTCTGGCCTCACGGAGCTCCAGTCCA  
TGTCACATTCAAGGTACCCAGGTACAGTTGTACAGGTTGTACACTGCAGGAGAGTGCCTGGCAAAAAGATCAAAT  
GGGGCTGGGACTTCTCATTGGCCAACCTGCCTTTCCCAGAAAGGAGTGATTTTCTATCGGCACAAAAGCACTAT  
ATGGACTGGTAATGGTTTACAGGTTTACAGATTACCCAGTGAGGCCTTATTCCTCCCTTCCCCCAAACCTGACA  
CCTTTGTTAGCCACCTCCCCACCCACATACATTTCTGCCAGTGTTCACAATGACACTCAGCGGTCTGTCTGGAC  
ATGAGTGCCCAGGGAATATGCCCAAGCTATGCCTTGCTCTTGTCTCTTGTCTGTTGCATTTCACTGGGAGCTTGCACT  
ATTGCAGCTCCAGTTTCTTGCACTGATCAGGGTCTGCAAGCAGTGGGGAAGGGGGCCAAGGTATTGGAGGACTC  
CCTCCAGCTTTGGAAGGGTCATCCGCGTGTGTGTGTGTGTGTATGTGTAGACAAGCTCTCGCTCTGTACCCAG  
GCTGGAGTGCAGTGGTGCAATCATGGTTCACTGCAGTCTTGACCTTTTGGGCTCAAGTGATCCTCCACCTCAGC  
CTCCTGAGTAGCTGGGACCATAGGCTCACAACACCACACCTGGCAAATTTGATTTTTTTTTTTTTTTTTCAGAGAC  
GGGGTCTCGCAACATTGCCCAGACTTCCTTTGTGTTAGTTAATAAAGCTTTCTCAACTGCC

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**FIGURE 236**

MAPSSRPALPALLVLLGALFFPGPGNAQTSVSPSKVILPRGGSVLVTCSTSCDQPKLLGIETPLPKKELLPGNN  
RKVYELSNVQEDSQPMCYSNCPDGQSTAKTFLTIVYWTPERVELAPLPSWQPVGKNLTLRCQVEGGAPRANLTVVL  
LRGEKELKREPAVGEPAEVTTTVLVRRDHHGANFSCRTELDLRPQGLELFENTSAPYQLQTFVLPATPPQLVSPR  
VLEVDQTQGTVVCSLDGLFPVSEAQVHLALGDQRLNPTVTYGNDSFSAKASVSVTAEDEGTQRLTCAVILGNQSQE  
TLQTVTIYSFPAPNVILTKPEVSEGTEVTVKCEAHPRAKVTLNGVPAQPLGPRAQLLLKATPEDNGRSFSCSATL  
EVAGQLIHKNQTRELRLVLYGPRLDERDCPGNWTWPENSQQTPMCQAWGNPLPELKCLKDGTFLPIGESVTVTRD  
LEGTYLCRARSTQGEVTREVTNVLSPRYEIVIIITVVAADVIMGTAGLSTYLYNRQRKIKKYRLQQAQKGTMPKP  
NTQATPP

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**FIGURE 237**

GC GCCCAGTCGACGCTGAGCTCCTCTGCTACTCAGAGTTGCAACCTCAGCCTCGCTATGGCTCCCAGCAGCCCC  
CGGCCCGCGCTGCCCCGACTCCTGGTCCTGCTCGGGGCTCTGTTCCAGGACCTGGCAATGCCAGACATCTGTG  
TCCCCCTCAAAGTCATCCTGCCCCGGGGAGGCTCCGTGCTGGTGACATGCAGCACCTCCTGTGACCAGCCCCAAG  
TTGTTGGGCATAGAGACCCCGTTGCCTAAAAAGGAGTTGCTCCTGCCTGGGAACAACCGGAAGGTGTATGAACTG  
AGCAATGTGCAAGAAGATAGCCAACCAATGTGCTATTCAAACCTGCCCTGATGGGCAGTCAACAGCTAAAACCTTC  
CTCACCGTGTACTGGACTCCAGAACGGGTGGAACCTGGCACCCCTCCCCCTCTTGGCAGCCAGTGGGCAAGAACCTT  
ACCCTACGCTGCCAGGTGGAGGGTGGGGCACCCCGGGCAACCTCACCGTGGTGCTGCTCCGTGGGGAGAAGGAG  
CTGAAACGGGAGCCAGCTGTGGGGGAGCCCGCTGAGGTACAGACCACGGTGCTGGTGAGGAGAGATCACCATGGA  
GCCAATTTCTCGTGCCGCACTGAACTGGACCTGCGGCCCAAGGGCTGGAGCTGTTTGAGAACACCTCGGCCCCC  
TACCAGCTCCAGACCTTTGTCTGCCAGCGACTCCCCACAACCTTGTCAGCCCCCGGGTCTAGAGGTGGACACG  
CAGGGGACCGTGGTCTGTTCCTGGACGGGCTGTTCCAGTCTCGGAGGCCAGGTCCACCTGGCACTGGGGGAC  
CAGAGGTTGAACCCACAGTCACCTATGGCAACGACTCCTTCTCGGCCAAGGCCTCAGTCAGTGTGACCGCAGAG  
GACGAGGGCACCCAGCGGTGACGTGTGCAGTAATACTGGGGAACAGAGCCAGGAGACACTGCAGACAGTGACC  
ATCTACAGCTTTCCGGCGCCCAACGTGATTCTGACGAAGCCAGAGGTCTCAGAAGGGACCGAGGTGACAGTGAAG  
TGTGAGGCCCCACCTAGAGCCAAGGTGACGCTGAATGGGGTTCCAGCCCAGCCACTGGGCCCCAGGGCCCCAGCTC  
CTGCTGAAGGCCACCCAGAGGACAACGGGCGCAGCTTCTCCTGCTCTGCAACCTGGAGGTGGCCGGCCAGCTT  
ATACACAAGAACCAGACCCGGGAGCTTCGTGTCTGTATGGCCCCGACTGGACGAGAGGGATTGTCCGGGAAAC  
TGGACGTGGCCAGAAAATTCCCAGCAGACTCCAATGTGCCAGGCTTGGGGGAACCCATTGCCCGAGCTCAAGTGT  
CTAAAGGATGGCACTTTCCCACTGCCCATCGGGGAATCAGTGACTGTCACTCGAGATCTTGAGGGCACCTACCTC  
TGTCGGGCCAGGAGCACTCAAGGGGAGGTACCCGCGAGGTGACCGTGAATGTGCTCTCCCCCGGTATGAGATT  
GTCATCATCACTGTGGTAGCAGCCGAGTCATAATGGGCACTGCAGGCCTCAGCACGTACCTCTATAACGCCAG  
CGGAAGATCAAGAAATACAGACTACAACAGGCCCAAAAAGGGACCCCCATGAAACCGAACACACAAGCCACGCCT  
CCCTGAACCTATCCCGGGACAGGGCCTCTTCCTCGGCCTTCCCATATTGGTGGCAGTGTTGCCACACTGAACAGA  
GTGGAAGACATATGCCATGCAGCTACACCTACCGGCCCTGGGACGCCGAGGACAGGGCATTGTCTCAGTCAGA  
TACAACAGCATTTGGGGCCATGGTACCTGCACACCTAAAACACTAGGCCACGCATCTGATCTGTAGTCACATGAC  
TAAGCCAAGAGGAAGGAGCAAGACTCAAGACATGATTGATGGATGTTAAAGTCTAGCCTGATGAGAGGGGAAGTG  
GTGGGGGAGACATAGCCCCACCATGAGGACATACAACTGGGAAATACTGAAACTTGCTGCCATTGGGTATGCTG  
AGGCCACAGACTTACAGAAGAAGTGGCCCTCCATAGACATGTGTAGCATCAAAACACAAAGGCCACACTTCCT  
GACGGATGCCAGCTTGGGCACTGCTGTCTACTGACCCCAACCTTGATGATATGTATTTATTATTGTTATTTT  
ACCAGCTATTTATTGAGTGTCTTTTATGTAGGCTAAATGAACATAGGTCTCTGGCCTCACGGAGCTCCCAGTCCA  
TGTCACATTCAAGGTACCCAGGTACAGTTGTACAGGTTGTACACTGCAGGAGAGTGCCTGGCAAAAAGATCAAAT  
GGGGCTGGGACTTCTCATTGGCCAACCTGCCTTTCCCCAGAAGGAGTGATTTTCTATCGGCACAAAAGCACTAT  
ATGGACTGGTAATGGTTACAGGTTACAGATTACCCAGTGAGGCCTTATTCCTCCCTTCCCCCAAACTGACA  
CCTTTGTTAGCCACCTCCCCACCCACATACATTTCTGCCAGTGTTCACAATGACACTCAGCGTTCATGTCTGGAC  
ATGAGTGCCCAGGGAATATGCCCAAGCTATGCCTTGTCTCTTGTCTGTTTGCAATTCAGTGGGAGCTTGCACT  
ATTGCAGCTCCAGTTTCTGTCAGTGATCAGGGTCTGCAAGCAGTGGGGAAGGGGGCCAAGGTATTGGAGGACTC  
CCTCCAGCTTTGGAAGGGTCATCCGCGTGTGTGTGTGTGTGTATGTGTAGACAAGCTCTCGCTCTGTACCCAG  
GCTGGAGTGCACTGGTGCAATCATGGTTCACTGCAGTCTTGACCTTTTGGGCTCAAGTGATCCTCCACCTCAGC  
CTCCTGAGTAGCTGGGACCATAGGCTCACAACACCACACCTGGCAAATTTGATTTTTTTTTTTTTTTTTCAGAGAC  
GGGGTCTCGCAACATTGCCCAGACTTCCTTTGTGTTAGTTAATAAAGCTTTCTCAACTGCC

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**FIGURE 238**

MAPSSPRPALPALLVLLGALFPGPGNAQTSVSPSKVILPRGGSVLVTCSTSCDQPKLLGIETPLPKKELLLPGNN  
RKVYELSNVQEDSQPMCYSNCPDGQSTAKTFLTVYWTPERVELAPLPSWQPVGKNLTLRCQVEGGAPRANLTVVL  
LRGEKELKREPAVGEPAEVTTTTLVRRDHHGANFSCRTELDLRPQGLELFENTSAPYQLQTFVLPAATPPQLVSPR  
VLEVDTQGTVVCSLDGLFPVSEAQVHLALGDQRLNPTVTYGNDSFSAKASVSVTAEDEGTQRLTCAVILGNQSQE  
TLQVTIYSFPAPNVILTKPEVSEGTEVTVKCEAHPRAKVTLNGVPAQPLGPRAQLLLKATPEDNGRSFSCSATL  
EVAGQLIHKNQTRRLRVLYGPRLDERDCPGNWTWPENSQQTPMCQAWGNPLPELKCLKDGTFFLP IGESVTVTRD  
LEGTYLCRARSTQGEVTREVTNVLSPRYEIVIIITVAAAVIMGTAGLSTYLYNRQRKIKKYRLQQAQKGTPMKP  
NTQATPP

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**FIGURE 239**

CTTCGGTCCTGCTGCTAGTGCCTTCTGCGCCAGGCCCGGTTCAATCAGCGGCCACAACCTGTCTAGGGCTCAGACAC  
CACCAGCCAATGAGGGAGGGCACGTGGAGCCGCGTCTGGGCTCGCGGCTCCTGACCAATGGGGAAGTGGCATGTG  
GGAGGGCGCCGGGGTTCCCCCGCCAATGGGGAGCTACGGCGCGCGGCCGGGACTTGAGGGCGGTGCGGCGCGGC  
GGGTGCGGTTCACTCGGTGCGGCGGCGGAGCGGAGGAGGAGGAGGAGGATGAGGAGGATGAGGAGGATG  
TGGGCCACGCAGGGGCTGGCGGTGCGCGTGGCTCTGAGCGTGCTGCCGGGCAGCCGGGCGCTGCGGCCGGGCGAC  
TGCGAAGTTTGTATTTCTTATCTGGGAAGATTTTACCAGGACCTCAAAGACAGAGATGTCACATTCTCACCAGCC  
ACTATTGAAAACGAACTTATAAAGTTCTGCCGGAAGCAAGAGGCAAAGAGAATCGGTTGTGCTACTATATCGGG  
GCCACAGATGATGCAGCCACCAAATCATCAATGAGGTATCAAAGCCTCTGGCCCACCACATCCCTGTGGAGAAG  
ATCTGTGAGAAGCTTAAGAAGAAGGACAGCCAGATATGTGAGCTTAAGTATGACAAGCAGATCGACCTGAGCACA  
GTGGACCTGAAGAAGCTCCGAGTTAAAGAGCTGAAGAAGATTCTGGATGACTGGGGGGAGACATGCAAAGGCTGT  
GCAGAAAAGTCTGACTACATCCGGAAGATAAATGAACTGATGCCTAAATATGCCCCAAGGCAGCCAGTGCACCG  
ACCGATTGTTAGTCTGCTCAATCTCTGTTGCACCTGAGGGGGAAAAAACAGTTCAACTGCTTACTCCCCAAACAG  
CCTTTTTGTAATTTATTTTTTAAGTGGGCTCCTGACAATACTGTATCAGATGTGAAGCCTGGAGCTTTCTGATG  
ATGCTGGCCCTACAGTACCCCATGAGGGGATTCCCTTCCTTCTGTTGCTGGTGTACTCTAGGACTTCAAAGTGT  
GTCTGGGATTTTTTTATTAAAGAAAAAAATTTCTAGCTGTCAAAAAAAAAA

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**FIGURE 240**

MGKWHVGGRRGSPRQWGATARGRDLEAVRRGGCGSVGRRRQRRRRRRRRMRMRMRMWATQGLAVRVALSVLPGR  
ALRPGDCEVCISYLGRFYQDLKDRDVTFSPTIENELIKFCREARGKENRLCYIIGATDDAATKIINEVSKPLAH  
HIPVEKICEKLKKKDSQICELKYDKQIDLSTVDLKKLRVKELKKILDDWGETCKGCAEKSDYIRKINELMPKYAP  
KAASAPTDL



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**FIGURE 242**

MEEECRVLSIQSHVIRGYVGNRAATFPLQVLGFEIDAVNSVQFSNHTGYAHWKGQVLNSDELQELYEGLRLNNMN  
KYDYVLTGYTRDKSFLAMVVDIVQELKQONPRLVYVCDPVLGDKWDGEGSMYVPEDLLPVYKEKVPLADIITPN  
QFEAELLSGRKIHSQEEALRVMDMLHSMGPDITVITSSDLPSPQGSNYLIVLGSQRRRNPAGSVMERIRMDIRK  
VDAVFVGTGDLFAAMLLAWTHKHPNNLKVACEKTVSTLHHVLQRTIQCAKAQAGEGVRPSPMQLELRMVQSKRDI  
EDPEIVVQATVL



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**FIGURE 243**

GAATTCCCCCCCCCCCCCAGTGCTCCGCGCGCTCTTGACGTCCGGAGCCCCTGGAGTAGGCGCTTCCGGCCATT  
CATACTGCAGTCGGTCAGTGTTTCGGTTGAAGGATTCTGTGTGCTGTTCGGACCCAGAGGGTGACGGCGCCGCTAGG  
**ATGA**AGCTCGTGAGATTTTTGATGAAATTGAGTCATGAACTGTAACCATTGAATTGAAGAACGGAACACAGGTC  
CATGGAACAATCACAGGTGTGGATGTCAGCATGAATACACATCTTAAAGCTGTGAAAATGACCCTGAAGAACAGA  
GAACCTGTACAGCTGGAAACGCTGAGTATTCGAGGAAATAACATTCGGTATTTTATTCTACCAGACAGTTTACCT  
CTGGATACACTACTTGTGGATGTTGAACCTAAGGTGAAATCTAAGAAAAGGGAAGCTGTTGCAGGAAGAGGCAGA  
GGAAGAGGAAGAGGAAGAGGACGTGGCCGTGGCAGAGGAAGAGGGGGTCCTAGGCGAT**TAAT**GTCTCTCAAGATTT  
CAAAGTCATATGAGATTTGGGATATTTTTTGTACAGGTTGTGTTTGTATGTTCAGTTTTTAATAAACATAAATG  
TGGGACAGAGCTGTCTATTTAGTATATCAAAGTTTTAGTAGTTTCCTCCACATTCACGAAATTACCACAGTGAGA  
GCTAAGCATTTCTACTGGGCAGTTTCATTTTTAGTTGATCAGGTTTTAAGTTTTTGAACATAAAATTTTTCTTTTT  
CTTTTTATGATGAATAAGGTTAAATAAAAAGCCTTAGACAAATTAATTTGGCAGAGTTTAATTGAGCAAAGGAC  
AATTCACAAATCAGGTAGCCCCTGAACCATAATAGGCTCAGAGGCTTCAGCCCAGCTGCATAGTTGAAGATTTAT  
GGACAGAAGGAAAGTGATGTATGGAAAATGGAAGTGAGATACAGCAACAGCCGATTAGTTACAGTTCAGCGTTT  
GCCTTATTTGAATATGGTTTGAACAGTTCGCTGTCTTTGGTTGGCTGAAACTTAGTGATTGCCACAAGAGTAGGG  
TACCGTCTGTTTACACGTCCAGTTAGGCTACAGTTCTATGTACTGAGAAACCTTTAAGCTGAACTTGAGATATGT  
AAAGAGACTTTAGGCTAACTTAACAATATATATAGGAATATATCCCTTCTACTTCACATGCACTGAATATGCAT  
TTTATTGCTTTACTCTTCATTCTGTGGCACCTACCCACAGGGGAAGTAAGAAGTTTGTTTTGGTATTTTCGGAAC  
TAAAGTCCTTATGGGATGGGGTCTAGAATTGATTCTCCTTTCTGAGTTTTACTCCACGGAGTCTTAGGTACCTG  
GTAAAAAGTTGTCTTCTAAATTAAGGGTCATTGCTTTGTTGTCTAGCTGCTAATGTCTTACTTTTGTCTTTTG  
CTTTTTAATCAGTTCTTAATAGGATATAGTTTTATGTTTTCCAAGTTATAACTTGGAGTTAATGGTCACTAGATT  
ATCAGTTATGAGCAGTGTTAAATCTCCTATTAATGTGTAATGTACCTGTCAGTGCCTCCTTTATTAAGGGGTTT  
TTTGAGAATAAAAGAGAAAAGACCTACTTTATTTGACAGCAAAAAAAAAAAGGAATTC

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**FIGURE 244**

MKLVRFLMKLSHETVTIELKNGTQVHGTITGVDVSMNTHLKAVKMTLKNREPVQLETLSIRGNNIRYFILPDSLP  
LDTLLVDVEPKVKSKKREAVAGRGRGRGRGRGRGRGRGGPRR

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**FIGURE 245**

CGACCACCCGGCCTCGGCCAATAAGCGCCGCCCTCTCGCCCCGTGTTACTGGGTAGAAGAAAACAAAAACAAAC  
AGAGCGAGAAGGGCCAGAGACTCTCCGAGGCGGCGGCAGAGACAGAAGAGCGGGGTCGGGGCCGGCTGACCAGGA  
ACCTGGGCGAGCAGCGGCGGGGGCCCGAGGGATTCTGAAGGAAGATTTCCATTAGGTAATTTGTTTAAATCAGTGC  
AAGCGAAATTAAGGGAAAAATGATGTAGAAAATGAGCAGATACTGAATGTAAACCCTGCAGATCCTGATAACTTA  
AGTGA CTCTCTCTTTTCCGGTGATGAAGAAAATGCTGGGACTGAGGAAATAAAGAATGAAATAAATGGAAATTGG  
ATTTTCAGCATCTCTCCATTAAACGAAGCTAGAATTAATGCCAAGGCAAAAAGGCGACTAAGGAAAACTCATCCCGG  
GACTCTGGCAGAGGCGATTCCGGTCAGCGACAGTGGGAGTGACGCCCTTAGAAGTGGATTAAGTGTGCCAACCACT  
CCAAAGGGAAGGTTGCTGGATAGGCGATCCAGATCTGGGAAAGGAAGGGGACTACCAAAGAAAGGTGGTGCAGGA  
GGCAAAGGTGTCTGGGGTACACCTGGACAGGTGTATGATGTGGAGGAGGTGGATGTGAAAGATCCTAACTATGAT  
GATGACCAGGAGAACTGTGTTTATGAACTGTAGTTTTGCCCTTTGGATGAAAGGGCATTGAGAAGACTTTAACA  
CCAATCATACAGGAATATTTTGAGCATGGAGATACTAATGAAGTTGCGGAAATGTTAAGAGATTTAAATCTTGGT  
GAAATGAAAAGTGGAGTACCAGTGTGGCAGTATCCTTAGCATTGGAGGGGAAGGCTAGTCATAGAGAGATGACA  
TCTAAGCTTCTTTCTGACCTTTGTGGGACAGTAATGAGCACAACCTGATGTGGAAAAATCATTTGATAAATTGTTG  
AAAGATCTACCTGAATTAGCACTGGATACTCCTAGAGCACCACAGTTGGTGGGCCAGTTTATTGCTAGAGCTGTT  
GGAGATGGAATTTTATGTAATACCTATATTGATAGTTACAAAGGAACCTGATATTGTGTGCAGGCTAGAGCTGCT  
CTGGATAAGGCTACCGTGCTTCTGAGTATGTCTAAAGGTGGAAGCGTAAAGATAGTGTGTGGGGCTCTGGAGGT  
GGGCAGCAATCTGTCAATCACCTTGTTAAAGAGATTGATATGCTGCTGAAAGAATATTTACTCTCTGGAGACATA  
TCTGAAGCTGAACATTGCCTTAAGGAACCTGGAAGTACCTCATTTTCACCATGAGCTTGATATGAAGCTATTATA  
ATGGTTTTAGAGTCAACTGGAGAAAGTACATTTAAGATGATTTTGGATTTATTAAAGTCCCTTTGGAAGTCTTCT  
ACCATTACTGTAGACCAAATGAAAAGAGGTTATGAGAGAATTTACAATGAAATTCGGGACATTAATCTGGATGTC  
CCACATTCACTCTGTGCTGGAGCGGTTTGTAGAAGAATGTTTTCAGGCTGGAATAATTTCCAAACAACCTCAGA  
GATCTTTGTCTTTCAAGGGGCAGAAAGCGTTTTGTAAAGCGAAGGAGATGGAGGTCGTCTTAAACCAGAGAGCTAC  
**TGA**ATATAAGA ACTCTTGCACTCTTAGATGTTATAAAAAATATATATCTGAATTGTAAGAGTTGTTAGCACAAAGTT  
TTTTTTTTTTTTTTTTTTAAGCACTTGTTTTGGGTACAAGGCATTTCTGACATTTTATAAACCTACATTTAAGGG  
GAATTTTTAAAGGAAATGTTTTTCTTTTTTTTTTGTTTTTTCGAGGGGCAAGGAGGGACAGAAAAGTAACCTCT  
TCTTAAGTGGAATATTCTAATAAGCTACCTTTTGTAAAGTGCCATGTTTATTATCTAATCATTCCAAGTTTTGCAT  
TGATGTCTGACTGCCACTCCTTTCTTTCAAGGACAGTGTTTTTGTAGTAAATCACTGGTTTATACAAAGCTTT  
ATTTAGGGGGTAAAGTTAAGCTGCTAAAACCCCATGTTGGCTGCTGCTGTTGAGATACTGTGCTTTGGGAGTAAA  
AAAAGAAAGTTATTTCTTTGTCTTAAAGAATTTTAAAAAATTAGTCATGAGACTTATTCATCTTTCCAGGGAAC  
ATACTGATTGGTCTTAAAGACTAGACAGTTAAGTAAAAGGTGGCTGGAACATCTATTTTTCTACAAAACCTGGAA  
AAATGAACCTGGTTCTAGAAGAATGTACACCAAAATAAAACATGTGAAGCAGTAAAAAAAAAAAAAAAAA

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**FIGURE 246**

MDVENEQILNVNPADPDNLSDSLFSGDEENAGTEEIKNEINGNWISASSINEARINAKAKRRLRKNSSRDSGRGD  
SVSDSGSDALRSGLTVPTSPKGRLLDRRSRSGKGRGLPKKGGAGGKGVWGTPGQVYDVEEVDVKDPNYDDDQENC  
VYETVVLPLDERAFEKTLTPIIQEYFEHGD TNEVAEMLRDLNLGEMKSGVPVLAVSLALEGKASHREMTSKLLSD  
LCGTVMSTTDVEKSFDKLLKDLPELALDTPRAPQLVGQFIARAVGDGILCNTYIDSYKGTVDVCVQARAALDKATV  
LLSMSKGGKRKDSVWGS GGGQSVNHLVKEIDMLLKEYLLSGDISEAEHCLKELEVPHFHHELVEAIIMVLEST  
GESTFKMILDLLKSLWKSSTITVDQMKRGYERIYNEIPDINLDVPHSYSVLERFVEECFQAGIISKQLRDLCP SR  
GRKRFVSEGDGGRLKPESY

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**FIGURE 247**

CGACCACCCGGCCTCGGCCAATAAGCGCCGCCCTCTCGCCCCGTGTTACTGGGTAGAAGAAAACAAAAACAAAC  
AGAGCGAGAAGGGCCAGAGACTCTCCGAGGCGGCGGCAGAGACAGAAGAGCGGGGTCTGGGGCCGGCTGACCAGGA  
ACCTGGGCGAGCAGCGGCGGGGGCCCGAGGGATTCTGAAGGAAGATTTCCATTAGGTAATTTGTTTAATCAGTGC  
AAGCGAAATTAAGGGAAAATGGATGTAGAAAATGAGCAGATACTGAATGTAAACCTGCAGATCCTGATAACTTA  
AGTGA CTCTCTCTTTTCCGGTGATGAAGAAAATGCTGGGACTGAGGAAATAAAGAATGAAATAAATGGAAATTGG  
ATTTTCAGCATCTCCATTAACGAAGCTAGAATTAATGCCAAGGCAAAAAGGCGACTAAGGAAAACTCATCCCGG  
GACTCTGGCAGAGGCGATTTCGGTCAGCGACAGTGGGAGTGACGCCCTTAGAAGTGGATTAAGTGTGCCAACCACT  
CCAAAGGGAAGGTTGCTGGATAGGCGATCCAGATCTGGGAAAGGAAGGGGACTACCAAAGAAAGGTGGTGCAGGA  
GGCAAAGGTGTCTGGGGTACACCTGGACAGGTGTATGATGTGGAGGAGGTGGATGTGAAAGATCCTAACTATGAT  
GATGACCAGGAGA ACTGTGTTTATGAACTGTAGTTTTGCCTTTGGATGAAAGGGCATTGAGAAGACTTTAACA  
CCAATCATA CAGGAATATTTTGAGCATGGAGATACTAATGAAGTTGCGGAAATGTTAAGAGATTTAAATCTTGGT  
GAAATGAAAAGTGGAGTACCAGTGTGTCAGTATCCTTAGCATTGGAGGGGAAGGCTAGTCATAGAGAGATGACA  
TCTAAGCTTCTTTCTGACCTTTGTGGGACAGTAATGAGCACA ACTGATGTGAAAAATCATTTGATAAATTGTTG  
AAAGATCTACCTGAATTAGCACTGGATACTCCTAGAGCACCACAGTTGGTGGGCCAGTTTATTGCTAGAGCTGTT  
GGAGATGGAATTTTATGTAATACCTATATTGATAGTTACAAAGGA ACTGTAGATTGTGTGCAGGCTAGAGCTGCT  
CTGGATAAGGCTACCGTGCTTCTGAGTATGTCTAAAGGTGGAAGCGTAAAGATAGTGTGTGGGGCTCTGGAGGT  
GGGCAGCAATCTGTCAATCACCTTGTTAAAGAGATTGATATGCTGCTGAAAGAATATTTACTCTCTGGAGACATA  
TCTGAAGCTGAACATTGCCTTAAGGA ACTGGAAGTACCTCATTTTACCATGAGCTTGTATATGAAGCTATTATA  
ATGGTTTTAGAGTCAACTGGAGAAAGTACATTTAAGATGATTTTGGATTTATTAAAGTCCCTTTGGAAGTCTTCT  
ACCATTACTGTAGACCAAATGAAAAGAGGTTATGAGAGAATTTACAATGAAATCCGGACATTAATCTGGATGTC  
CCACATT CATACTCTGTGCTGGAGCGGTTTGTAGAAGAATGTTTTCAGGCTGGAATAATTTCCAAACA ACTCAGA  
GATCTTTGTCTTCAAGGGGCAGAAAGCGTTTTGTAAAGCAAGGAGATGGAGGTCGTCTTAAACCAGAGAGCTAC  
TGAATATAAGA ACTCTTGCAGTCTTAGATGTTATAAAAATATATATCTGAATTGTAAGAGTTGTTAGCACAAAGTT  
TTTTTTTTTTTTTTTTTTTAAAGCACTTGTTTTGGGTACAAGGCATTTCTGACATTTTATAAACCTACATTTAAGGG  
GAATTTTTTAAAGGAAATGTTTTTCTTTTTTTTTTTGTTTTTCGAGGGGGCAAGGAGGGACAGAAAAGTAACCTCT  
TCTTAAGTGAATATTCTAATAAGCTACCTTTTGTAAAGTGCCATGTTTATTATCTAATCATTCCAAGTTTTGCAT  
TGATGTCTGACTGCCACTCCTTTCTTTCAAGGACAGTGTTTTTGTAGTAAATCACTGGTTTATACAAAGCTTT  
ATTTAGGGGGTAAAGTTAAGCTGCTAAAACCCCATGTTGGCTGCTGCTGTTGAGATACTGTGCTTTGGGAGTAAA  
AAAAGAAAGTTATTTCTTTGTCTTAAAGAATTTTTAAAAAATTAGTCATGAGACTTATTCATCTTTCCAGGGAAC  
ATACTGATTGGTCTTAAAAGACTAGACAGTTAAGTAAAAGGTGGCTGGAACATCTATTTTTCTACAAA ACTTGAA  
AAATGAACCTGGTTCTAGAAGAATGTACACCAAATAAAAACATGTGAAGCAGTAAAAAAAAAAAAAAAAA

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**FIGURE 248**

MTKYPDNLSDSLFSGDEENAGTEEIKNEINGNWISASSINEARINAKAKRRLRKNSSRDSGRGDSVSDSGSDALR  
SGLTVPTSPKGRLLDRRSRSGKGRGLPKKGGAGGKGVWGTPGQVYDVEEVDVKDPNYDDDQENCVYETVVLPLDE  
RAFEKTLTPIIQEYFEHGDINEVAEMLRDLNLGEMKSGVPVLAVSLALEGKASHREMTSKLLSDLCGTMSTTDV  
EKSFDKLLKDLPELALDTPRAPQLVGQFIARAVGDGILCNTYIDSYKGTVDVCVQARAALDKATVLLSMKGGKRR  
DSVWGSGGGQQSVNHLVKEIDMLLKEYLLSGDISEAEHCLKELEVPHFHHELVEAIIMVLESTGESTFKMILDL  
LKSLWKSSTITVDQMKRGYERIYNEIPDINLDVPHSYSVLERFVEECFQAGIISKQLRDLCP SRGRKRFVSEGDG  
GRLKPESY

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**FIGURE 249**

CGGAGCCAGCGTGGGAGGCCGCTGCCGTCGCGCGCCTTGGTTTTTCTGTTCCCTTTTTTTTTTTTTTTTTTAACTT  
CCTGCCTATCACACGCAGCCATCAGCCACAAAAGACATGACTACCAACGCGGGCCCCTTGCACCCATACTGGCCT  
CAGCACCTAAGACTGGACAACCTTTGTACCTAATGACCGCCCCACCTGGCATATACTGGCTGGCCTCTTCTCTGTC  
ACAGGGGTCTTAGTCGTGACCACATGGCTGTTGTGTCAGGTCGTGCTGCGGTTGTCCCATTGGGGACTTGGCGGGCGA  
CTGTCCCTGTGCTGGTTTGCAGTGTGTGGGTTTATTACCTGGTGATCGAGGGCTGGTTTCGTTCTCTACTACGAA  
GACCTGCTTGGAGACCAAGCCTTCTTATCTCAACTCTGGAAAGAGTATGCCAAGGGAGACAGCCGATAACATCCTG  
GGTGACAACTTCACAGTGTGCATGGAAACCATCACAGCTTGCCGTGTTGGGGACCACTCAGCCTGTGGGTGGTGATC  
GCCTTTCTCCGCCAGCATCCCCCTCCGCTTTCATTCTACAGCTTGTGGTCTCTGTGGGCCAGATCTATGGGGATGTG  
CTCTACTTCCTGACAGAGCACCGCGACGGATTCCAGCACGGAGAGCTGGGCCACCCTCTCTACTTCTGGTTTTAC  
TTTGTCTTCATGAATGCCCTGTGGCTGGTGCTGCCTGGAGTCCTTGTGCTTGATGCTGTGAAGCACCTCACTCAT  
GCCCAGAGCACGCTGGATGCCAAGGCCACAAAAGCCAAGAGCAAGAAGAACTTGAGGAGTGGTGGACCAGGCTCGA  
AACTGGCCGAGGAGGAGCTCTCTGCCTGCCAGAAGAGTCTAGTCCTGCTCCACAGTTTGGAGGGACAAAGCTA  
ATTGATCTGTACACTCAGGCTCATGGGCAGGCACAAGAAGGGGAATAAAGGGGCTGTGTGAAGGCACTGCTGGG  
AGCCATTAGAACACAGATACAAGAGAAGCCAGGAGGTCTATGATGGTGACGATTTTTAAAATCAGGAAATAAAG  
ATCTTGACTCTAAAAAAAAAAAAA

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**FIGURE 250**

MTTNAGPLHPYWPQHRLDNFVPNDRPTWHILAGLFSVTGVLVVTTWLLSGRAAVVPLGTWRRLSLCWFAVCGFI  
HLVIEGWFLVLYYEDLLGDQAFLSQLWKEYAKGDSRYILGDNFTVCMETITACLWGPLSLWVVI AFLRQHPLRFIL  
QLVVS VGQIYGDVLYFLTEHRDGFQHGELGHPLYFWFYFVFMNALWLVLPGVLVLD AVKHLTHAQSTLDAKATKA  
KSKKN



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**FIGURE 251A**

CGTGC GCGCGGTGGGCTGGTCTTCCGCGGCCGCGCTTGCGCCGCGGCGGAGGGTGGGCGCGCGGGAGCGGGATGG  
AGCTGGGGCGACCTTGCTGGAGGTACTGGCCTCAGCCCTTTCTCCCGCTTCCCCACCCCTCTTACCCCCAGATT  
ACATTCTCTGTGTGGTGTCTTTACTGCAGATGAAGGATTTGGGGGCAGAGCACTTGGCAGGTCATGAAGGGGTCC  
AACTTCTCGGGTTGTTGAACGTCTACCTGGAACAAGAAGAGAGATTCCAACCTCGAGAAAAAGGGCTGAGTTTGA  
TTGAGGCTACCCCGGAGAATGATAACACTTTGTGTCCAGGATTGAGAAATGCCAAAGTTGAAGATTTAAGGAGTT  
TAGCCAACTTTTTTGGATCTTGCACTGAACTTTTGTCTGGCTGTCAATATTTTGGACAGGTTCTTGGCTCTTA  
TGAAGGTGAAACCTAAACATTTGTCTTGCACTGGAGTCTGTTCTTTTTTGTCTGGCTGCTAGAATAGTTGAAGAAG  
ACTGCAATATTCCATCCACTCATGATGTGATCCGGATTAGTCAGTGTAATGTACTGCTTCTGACATAAAACGGA  
TGGAAAAAATAATTTTCAAGAAATTTGCACTATGAATTGGAAGCTACTACTGCCTTAACTTTTTGCACTTATAACC  
ATACTATTATACTTTGTCTACTTTCAGAAAGGAAAGAAATACTGAGCCTTGATAAACTAGAAGCTCAGCTGAAAG  
CTTGCAACTGCCGACTCATCTTTTCAAAAGCAAAACCATCTGTATTAGCCTTGTGCCTTCTCAATTTGGAAGTGG  
AACTTTGAAATCTGTTGAATTACTGGAATTTCTCTTGCTAGTTAAAAAACATTCCAAGATTAATGACACTGAGT  
TCTTCTACTGGAGAGAGTTGGTTTCTAAATGCCTAGCCGAGTATTCTTCTCCTGAATGTTGCAAACCAGATCTTA  
AGAAGTTGGTTTGGATCGTTTCAAGGCGCACAGCCAGAACCTCCACAACAGCTACTATAGTGTTTCTGAGCTGC  
CAACGATACCTGAGGGGGGTTGTTTTGATGAAAGTGAAAGTGAGGACTCTTGTGAAGATATGAGTTGTGGAGAGG  
AGAGTCTCAGCAGCTCTCCTCCAGTGATCAAGAGTGCACCTTCTTTTTCAACTTCAAAGTGGCACAAACACTGT  
GCTTTCCATCTTAGAAATCTGATTGTTCTGTGAGAATTTATATTTACAGGTTTCAAAGCAATAAATGGGGGAATA  
GGTAGTTTCTGGTTTAGCCCCCATCTAGTCAGGAATTAATACTGGAATACCTACCTTCTATTTGTTATTTCAG  
ATCAGATCTGGCCTATTTTCATATTTATCCTAAGCCATCAAATGGGGTAGTGCCTCTTAAACCATTAAACAGTACT  
TTAGACATTGGCACTTTATTTTTCTCGTAGATCTTTAGCTACTTTGGGGAGGAGGGAAGGTGCTGATACCTTCAA  
TTTGTTACTTTTTCAAGATTTTTTAAAAATACTAGTGAGCTTATCTTAAACATTTTATAAAACCTTCAGATGTCT  
TTAAGCAGATTGGAAGTATGCAAGTGCTTCCTTAGCAGGGACAGTGGATAATCCTTAATGGTTTTATCATAGATTT  
CACCCCTCCCCCTTCTCAGAAGAGTGAGTATGCTCTTAAATGTCAAACACATTTTTGTTGTTTTGTTTTTAAAT  
GATCAGTGCTATTTGATGTGATGCAGATCTTATAAATTTGGGAATTATAATATTGACATTTCTGTGATTTTTAT  
ATATGTAATGTCTTAATTGAGATTTCTGTTAAGGCAGAAATAATTAGGCTAGGGCTCTTAGTTTTTATTCTTATT  
GCCCAAGTATTGTCAAACATATGGTATTATTTTTAATGTTACTTTAAAAATCCATAATCTGCTAGTTTTGCATGTAC  
TTATATGAAAACAGTGCAGTAAGTTGAAAACCTCAGTATCTATGGAATTGATAAATGTTGATCTGGTGTAGTATAT  
TTTATCGCATTTTCTTATATTAATAAATGTCTGCATGATTACATTTTATTTCTTTGTAATTTACATTTTCAAGT  
AGTGTATTGCTATATGGGTGCCAAGATTGAATATGAAGAACCCGAGTGTTGTAGTATTATAGTTTTAAGCAAAAT  
CTGTGTGGTGATACAGCCATAAGAATGGGGCTTATATAAACTCTGTACATGTAAGATTTTGTACAGAGAATTTTT  
AACTTTATAAATTGTATATGAACATGTAAATCTTTTAAATGTACATAAAATACTGTATTTTTTTACCTTGTTG  
TGATAGTCTAGTCATTGCATGTAAATATAATTTATTATGTATTCTGTAGTATAAATCATACATTGATGACTTACA  
TTTTTACTGGTAAGTCAACATCCGTTGGATGTTTTCTGAAGTGGCTCTTTTTGAAGTGATAATAGATTGTAATTC  
AAAATAAAATTATTAATGAATTCCTTGTTTGGGATCACATCTTAATTTTTAATCTGTTAAAAGTCTTGATGT  
ATTTTAATGAGAAGACTTTAGGTGAGGCTACAGTGATTCCAGAGTGAGCCTTCTAACTGGCTAGCAGAAGTTCTC  
TAGGTTTGGCATCTGTGCCTTGGAGATACTGAAAGAGAATCTGTCATTTGACAATTGACCTCTTTGTGGGATGGA  
CTCATTAAGTATGCTCTCAGAGACTGGTATATTACCAGAATGCCTATTAATTTTCACTGAGAGGCAACAGGTATT  
AAGTAGAACAGAAATGCTCAGGTTGGCAGATTAGAACGATCTTTCAGGAGACAAAGCAAGTTTTAATCAGTTGTTT  
GGTTAATAAGTATGGGGTGTTGCTGTGATAGGGCCCCGCCAGCTTCTGGCTCTTGTGGACCTCAAAAGTATCAG  
GTGGTTTTGCAAGTGGTGGTCTTTCCCTGCCCCACCCCAATAGGTTCCCCATCTGTCTAGTTTGAATTTTTGTA  
GACCTTTGTTTTCTCTAGTTAGAAAATCAGGTACACTGAATATGGTTTTTCAATGTAACACCTCTTCTCTGGAGATA  
GGGGTATGTTTTCTTACCCTTCTAGTGGAGAATCCTACTTGAGGATGACCTTTCCTCTCTTACTAAATAATATTA  
GTAAATAGTGGGCAATATATTCTGCTTTCAGATTTTGATTTGTTGAGATGTAAAAGTTGTTTGGGGCTTACCAAA  
TCTCAAGACTCTCTTAGCTCCTGCAGGATTGTATTGCTTTTCTTACTGGATATTTTTCTTGGGTAAGCATCTTT  
GTGGCTTCATCTCTTCCCCCTGTGGTTTTTCAGTGATTTTAGTCGAGACCTCTCTGCTGAGCTTGCAACCTGTTTA  
TTCATATGGCCTGCCATGCCACTTGGAGGTTTCTGATTACTCCCAAACCTGCTGGTTCTTTATGTCTTTCTCAGC  
GAATAATTCCATCTGTTTATGTTGGAACCTTAGGTGATATGCTCATCTCTTTTGCCTGTTTATGGAGGTCACCA  
GCCTCTATCATTTGTATGATTTGTTTTACTGTTTTATATCTCTCTGTCCCCCTTTTTCTGCCATTGGCATGGT

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**FIGURE 251B**

TTAGACCTGTACTCTTTATCAGCAGAGGTACTGTAATATATTTGTGATCCCTCAGCTTCCAGGCTTACTCCTGGT  
CTCTGCCTTCCTATCTACATATCCTTTTAAAATAAAATTTTAACTATCTCCTGAAAAATTGTTGAGTAGGTCACG  
CACAATCAGGAGAAAAATCTATTCATGACATACAAGTCTCTGTCTAATCTGAACACTGCACCTGTCTCTGGCCTT  
TTTTTCTTGTCATTTTCTAGACCTTAAAAATGTGTATTGAGAAAGAACTCTGTTAGCTATACAGAAGATGAACT  
GGGCAATATAGAGTAGCAGCATGGAGACCAGTCTGACTGAACTAAGGCAGTGGAGTGTGGATGAGGAAGAGAGG  
TGAAAATTGAGAAGCGCTATCCTTTCTCTTTGGGCATTATTAGGAGGCTCACAGACAAGTCCAGGAGTCTGGTTA  
TACCCTCCTGTGCCATTCAACCAGGTGGCTTTCCCATGACTGTGATGAATAAAATTGAGAAGCCCCGTGCCCTTTT  
CAGAGCAGAGGGTGAGGAGAAAGCTACCATTTTGTCTCATCCTTACCCCCGTTGACTTGGCGAGAGATTTGACC  
TTTCAGGTTTTGATCCTGTCAATTTTCTAGGATGTGGTGCACGCACCTTTGCTGTTGCGCATGGTGAAGTATTGTGC  
CTAGGTCCTGGGTCTTCATCTGTTTGGCTCTGCTACTGTTTCTCCTCCCAGGAAGTGTGGTTAGACAAATAATG  
TGTTTTAATTACCTGTCACACTCAGGATTAATACATACTCAGGTTAACTGTAGAGAGGCATTGGCTTCAGAACAC  
TCCTCGTGACAATTTTAACCATTTTCTTTGTCTAGAGTCTGCCTTTTTCTTTTTTACAATTTCTTTTATTTCAAC  
ACTAGGTTTCAATATGGTGTTCCTGCTACCTCCACCTCCCTCCTCCCTCATCACACATGCAAATTGTCAGCTTA  
TTGAGACAACCCACTTAGATTCATATATGGACAAGGACAAGGTATTTGCATTTGTTACTGGAATTCAGTTTTCC  
TAACTATTTACTACCAGAAATGGTCAATAACTTACTTTGTGGTTAGCAAATCAAATTGTGTGATAGATAGTTTCC  
CAGTATGATGGCCAGTCAGTCTTTCCATCCCTGTGCCTACATGCTGCTCTTCCCGTCCACAAGTGGAGTCTGTTT  
CTCTTGAGTTTTGGCTGGCCTTATGAATGGCTTTGCTTACTGAAGTGCAGCAGAAAGAAATTTAGTATATGTCCAA  
GCCTAGGCTTTAAGAGACTGGCAGCTTTCTTTTATCCTTTTTTGAAGCTAGCCACCATGCTGCAAAGAAGCTCA  
GCTGGATTACTGAAAGATGAGAGGCCATGTGGAGAGAGACTCTTGAGGATGAGAGATTATCTTGATGTTCCAGC  
CTTAAGCTCCAGCTGAATGTGGGTGTATCCTCAGCTACACCACAGAAAAACAGAGGAACACTCAGTCGATCCCA  
ATCAACCCACAGACTCACTAGAAATAACAAATTATTGTTTTAAGCCACGAGGTTTTGGGGGAGGGTTGTTAAACA  
GTAATAGATAAGTGAGACAGATTGCTTGTTATTTATGGTCAAATGGTGATTATCTCTGGTGAGATTACAGGTGAT  
GTTTTTTTTAAGTTATGCCTATCTGTAGTTTCCTTTTTTTCCTAAAATTGATTGAATTATTAGTGTATTAACAG  
AATAAAGAATGAACTTTAAACACACACGCTGGTTATATGCTTCCTCTAATTAAAATTCATGGCTCTCACCAC

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**FIGURE 252**

CGGGLVFRGRRCAAAEGGRAGSGMELGRPLLEVLA SALS P P P L P P D Y I L C V V S L L Q M K D L G A E H L A G H E G V Q  
L L G L L N V Y L E Q E E R F Q P R E K G L S L I E A T P E N D N T L C P G L R N A K V E D L R S L A N F F G S C T E T F V L A V N I L D R F L A L M  
K V K P K H L S C I G V C S F L L A A R I V E E D C N I P S T H D V I R I S Q C K C T A S D I K R M E K I I S E K L H Y E L E A T T A L N F L H L Y H  
T I I L C H T S E R K E I L S L D K L E A Q L K A C N C R L I F S K A K P S V L A L C L L N L E V E T L K S V E L L E I L L L V K K H S K I N D T E F  
F Y W R E L V S K C L A E Y S S P E C C K P D L K K L V I V S R R T A Q N L H N S Y Y S V P E L P T I P E G G C F D E S E S E D S C E D M S C G E E  
S L S S P P S D Q E C T F F F N F K V A Q T L C F P S

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**FIGURE 253**

CCGGTCGGATGCCGGACCGGGGGCACCGCTGAGGCGGTGGGTCCCCGACCTGCGAGACAGGTTTGGGAAGCCCCCG  
CTGCGCCCAGTCCGTGCGGACCGCGAGGCCGCGGGCGGGTGGAGGCGCGTCTCCGGCACGATGAAGGATTTGGGG  
GCAGAGCACTTGGCAGGTCATGAAGGGGTCCAACCTTCTCGGGTTGTTGAACGTCTACCTGGAACAAGAAGAGAGA  
TTCCAACCTCGAGAAAAAGGGCTGAGTTTGATTGAGGCTACCCCGGAGAATGATAACACTTTGTGTCCAGGATTG  
AGAAATGCCAAAGTTGAAGATTTAAGGAGTTTAGCCAACCTTTTTTGGATCTTGCACTGAACTTTTGTCTGGCT  
GTCAATATTTTGGACAGGTTCTTGGCTCTTATGAAGGTGAAACCTAAACATTTGTCTTGCACTGGAGTCTGTTCT  
TTTTTGTCTGGCTGCTAGAATAGTTGAAGAAGACTGCAATATTCATCCACTCATGATGTGATCCGGATTAGTCAG  
TGTAATGTACTGCTTCTGACATAAAACGGATGGAAAAAATAATTTTCAGAAAAATTGCACTATGAATTGGAAGCT  
ACTACTGCCTTAAACTTTTTGCACCTTATACCATACTATTATACTTTGTCATACTTCAGAAAGGAAAGAAATACTG  
AGCCTTGATAAACTAGAAGCTCAGCTGAAAGCTTGCAACTGCCGACTCATCTTTTCAAAGCAAAACCATCTGTA  
TTAGCCTTGTGCCTTCTCAATTTGGAAGTGGAACCTTTGAAATCTGTTGAATTACTGGAATTTCTCTTGTAGTT  
AAAAACATTCCAAGATTAATGACACTGAGTTCTTCTACTGGAGAGAGTTGGTTTCTAAATGCCTAGCCGAGTAT  
TCTTCTCCTGAATGTTGCAAACAGATCTTAAGAAGTTGGTTTGGATCGTTTCAAGGCGCACAGCCAGAACCTC  
CACAACAGCTACTATAGTGTTCCTGAGCTGCCAACGATACCTGAGGGGGTGTGTTTTGATGAAAGTGAAAGTGAG  
GACTCTTGTGAAGATATGAGTTGTGGAGAGGAGAGTCTCAGCAGCTCTCCTCCCAGTGATCAAGAGTGCACCTTC  
TTTTTCAACTTCAAAGTGGCACAAACACTGTGCTTTCCATCTTTAGAAATCTGATTGTTCTGTGAGAATTTATATT  
TACAGGGTTTCAAAGCAATAAATGGGGGAATAGGTAGTTTCTGGTTTAGCCCCCATCTAGTCAGGAATTAATAT  
ACTGGAATACCTACCTTCTATTTGTTATTTCAGATCAGATCTGGCCTATTTTCATATTTATCCTAAGCCATCAAAT  
GGGGTAGTGCTCTTAAACCATTAAACAGTACTTTAGACATTGGCACTTTATTTTTCTCGTAGATCTTTAGCTACT  
TTGGGGAGGAGGGAAGGTGCTGATACCTTCAATTTGTTACTTTTCAAGATTTTAAAAATAACTAGTGTAGCTTA  
TCTTAAACATTTTATAAAACCTTCAGATGTCTTTAAGCAGATTGGAAGTATGCAAGTGCTTCCTTAGCAGGGACA  
GTGGATAATCCTTAATGTTTTATCATAGATTTACCCCTCCCCCTTCTCAGAAGAGTGAGTATGCTCTTAAATGT  
CAAACACATTTTGTGTTTTGTTTTTAAATGATCAGTGTCTATTTGATGTGATGCAGATCTTATAAATTTGGG  
AATTATAATATTGACATTTCTGTGATTTTTATATATGTAATGTCTTAATTGAGATTTGTGTTAAGGCAGAAATAA  
TTAGGCTAGGGCTCTTAGTTTTTCATTCCTATTGCCCAAGTATTGTCAAACCTATGGTATTATTTAATGTTACTT  
TAAAAATCCATAATCTGCTAGTTTTGCATGTACTTATATGAAAACAGTGCAGTAAGTTGAAAACCTCAGTATCTAT  
GGAATTGATAAATGTTGATCTGGTGTAGTATATTTTATCCGCATTTTCTTATATTAAAAATGTTCTGCATGATT  
ACATTTTATTTGCCTTTGT

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**FIGURE 254**

MKDLGAEHLAGHEGVQLLGLLNVYLEQEERFQPREKGLSLIEATPENDNTLCPGLRNAKVEDLRSLANFFGSCTE  
TFVLAVNILDRLALMKVKPKHLSCIGVCSFLLAARIVEEDCNIPSTHDVIRISQCKCTASDIKRMEKIISEKLH  
YELEATTALNFLHLYHTIILCHTSEKKEILSLDKLEAQLKACNCRLIFSKAKPSVLALCLLNLEVETLKSVELLE  
ILLLVKKHISKINDTEFFYWRELVSCLAHEYSSPECCKPDLKKLVWIVSRRTAQNHLNSYYSVPELPTIPEGGCFD  
ESESEDSCEDMSCGEESLSSSPSDQECTFFNFKVAQTLCFPS

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**FIGURE 255**

GGCGGACCGAAGAACGCAGGAAGGGGGCCGGGGGACCCGCCCCCGGCCGGCCGCAGCCATGAACTCCAACGTGG  
 AGAACCTACCCCGCACATCATCCGCCTGGTGTACAAGGAGGTGACGACACTGACCGCAGACCCACCCGATGGCA  
 TCAAGGTCTTTCCCAACGAGGAGGACCTCACCGACCTCCAGGTCACCATCGAGGGCCCTGAGGGGACCCCATATG  
 CTGGAGGTCTGTTCCGCATGAAACTCCTGCTGGGGAAGGACTTCCCTGCCTCCCCACCCAAGGGCTACTTCCTGA  
 CCAAGATCTTCCACCCGAACGTGGGCGCCAATGGCGAGATCTGCGTCAACGTGCTCAAGAGGGACTGGACGGCTG  
 AGCTGGGCATCCGACACGTACTGCTGACCATCAAGTGCCTGCTGATCCACCCTAACCCCGAGTCTGCACTCAACG  
 AGGAGGCGGGCCGCCTGCTCTTGGAGAACTACGAGGAGTATGCGGCTCGGGCCCGTCTGCTCACAGAGATCCACG  
 GGGGCGCCGGCGGGCCAGCGGCAGGGCCGAAGCCGCTCGGGCCCTGGCCAGTGGCACTGAAGCTTCCTCCACCG  
 ACCCTGGGGCCCCAGGGGGCCCGGGAGGGGCTGAGGTTCCCATGGCCAAGAAGCATGCTGGCGAGCGCGATAAGA  
 AGCTGGCGGCCAAGAAAAAGACGGACAAGAAGCGGGCGCTGCGGGCGCTGCGGCGGCTGTAGTGGGCTCTCTTC  
 TCCTTCCACCGTGACCCCAACCTCTCCTGTCCCCTCCCTCCAACCTCTGTCTCTAAGTTATTTAAATTATGGCTGG  
 GGTGCGGGAGGGTACAGGGGGCACTGGGACCTGGATTTGTTTTTCTAAATAAAGTTGGAAAAGCA

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**FIGURE 256**

MNSNVENLPPHIIRLVYKEVTTLTADPPDGIKVFPNEEDLTDLQVTIEGPEGTPYAGGLFRMKLLLGKDFPASPP  
KGYFLTKIFHPNVGANGEICVNVLKRDWTAELGIRHVLLTIKCLLIHPNPESALNEEAGRLLLENYEEYAARARL  
LTEIHGGAGGPSGRAEAGRALASGTEASSTDPGAPGGPGGAEGPMAKKHAGERDKKLAAKKKTDKKRALRALRRL

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**FIGURE 257A**

ATTGAGCCGGTGCAGCGGGCGGGAGGAGTGGCTGGGGAGTCCCGTCGACGCTCTGTTCCGAGAGCGTGCCC  
CGGACCGCCAGCTCAGAACAGGGGAGCCGTGTAGCCGAACGGAAGCTGGGAGCAGCCGGGACTGGTGGCCCCGG  
CCCGAGCTCCGCGAGGCGGGAAGCACCCTGGATTTGGGAAGTCCCGGAGCAGCGCGGGCGGCACCTCCCTCACCCA  
AGGGGCCGCGGCGACGGTCACGGGGCGCGGCCACCGTGAGCGACCCAGGCCAGGATTCTAAATAGACGGCCCCA  
GGCTCCTCCTCCGCCCCGGGCGCCTCACCTGCGGGCATTGCGCGCGCCGCTCCGCGCGGTGTAGACGGCACCTGCG  
CCGCTTGTCTCGCGGGTCTCCGCCCTCGCCACCCTCACTGCGCCAGGCCAGGCAGCTCACCTGTACTGGCGC  
GGGCTGCGGAAGCCTGCGTGAGCCGAGGCGTTGAGGCGCGGGCGCCACGCCACTGTCCCGAGAGGACGCGAGGTGG  
AGCGGGCGCGGCTTCGCGGAACCCGGCGCGCGGCCCGCCGAGTGGTCCCAGCCTACACCGGGTTCCGGGGACCCGG  
CCGCCAGTGCCCCGGGGAGTAGCCGCCCGCGTGGCTGGGCACCATGAACAGCAGCAGCGCCAACATCACCTACGC  
CAGTCGCAAGCGGCGGAAGCCGGTGCAGAAAACAGTAAAGCCAATCCCAGCTGAAGGAATCAAGTCAAATCCTTC  
CAAGCGGCATAGAGACCGACTTAATACAGAGTTGGACCGTTTGGCTAGCCTGCTGCCTTTCCACAAGATGTTAT  
TAATAAGTTGGACAACTTTTCACTTCTTAGGCTCAGCGTCAGTTACCTGAGAGCCAAGAGCTTCTTTGATGTTGC  
ATTAATACTCTCCCTACTGAAAGAAACGGAGGCCAGGATAACTGTAGAGCAGCAAATTTAGAGAAGGCCTGAA  
CTTACAAGAAGGAGAATTCTTATTACAGGCTCTGAATGGCTTTGTATTAGTTGTCACTACAGATGCTTTGGTCTT  
TTATGCTTCTTCTACTATACAAGATTATCTAGGGTTTCAGCAGTCTGATGTCATACATCAGAGTGTATATGAAC  
TATCCATACCGAAGACCGAGCTGAATTTAGCGTCAGCTACACTGGGCATTAAATCCTTCTCAGTGTACAGAGTC  
TGGACAAGGAATTGAAGAAGCCACTGGTCTCCCCCAGACAGTAGTCTGTTATAACCCAGACCAGATTCTCCAGA  
AAACTCTCCTTTAATGGAGAGGTGCTTCATATGTCGTCTAAGGTGTCGTCTGGATAATTCATCTGGTTTTCTGGC  
AATGAATTTCCAAGGGAAGTTAAAGTATCTTCATGGACAGAAAAAGAAAGGGAAGATGGATCAATACTTCCACC  
TCAGTTGGCTTTGTTTGCATAGCTACTCCACTTCAGCCACCATCCATACTTGAAATCCGGACCAAAAAATTTTAT  
CTTTAGAACCAAAACACAACTAGACTTCACACCTATTGGTTGTGATGCCAAAGGAAGAATTGTTTTAGGATATAC  
TGAAGCAGAGCTGTGCACGAGAGGCTCAGGTTATCAGTTTATTCATGCAGCTGATATGCTTTATTGTGCCGAGTC  
CCATATCCGAATGATTAAAGACTGGAGAAAGTGGCATGATAGTTTCCGGCTTCTTACAAAAACAACCGATGGAC  
TTGGGTCCAGTCTAATGCACGCCTGCTTTATAAAAATGGAAGACCAGATTATATCATTGTAACCTCAGAGACCACT  
AACAGATGAGGAAGGAACAGAGCATTACGAAAACGAAATACGAAGTTGCCTTTTATGTTTACCCTGGAGAAGC  
TGTGTTGTATGAGGCAACCAACCTTTTCTGCCATAATGGATCCCTTACCCTAAGGACTAAAAATGGCACTAG  
TGGAAAAGACTCTGCTACCACATCCACTCTAAGCAAGGACTCTCTCAATCCTAGTTCCCTCCTGGCTGCCATGAT  
GCAACAAGATGAGTCTATTTATCTCTATCCTGCTTCAAGTACTTCAAGTACTGCACCTTTTGAAAACAACCTTTT  
CAACGAATCTATGAATGAATGCAGAAATTGGCAAGATAATACTGCACCGATGGGAAATGATACTATCCTGAAACA  
TGAGCAAATTGACCAGCCTCAGGATGTGAACCTATTGCTGGAGGTCACCCAGGGCTCTTTCAAGATAGTAAAAA  
CAGTGACTTGTACAGCATAATGAAAAACCTAGGCATTGATTTTGAAGACATCAGACACATGCAGAATGAAAAATT  
TTTCAGAAATGATTTTCTGGTGAGGTTGACTTCAGAGACATTGACTTAACGGATGAAATCCTGACGTATGTCCA  
AGATTCTTTAAGTAAGTCTCCCTTCATACCTTCAGATTATCAACAGCAACAGTCCTTGGCTCTGAACTCAAGCTG  
TATGGTACAGGAACACCTACATCTAGAACAGCAACAGCAACATCACCAAAAGCAAGTAGTAGTGAGCCACAGCA  
ACAGCTGTGTCAGAAGATGAAGCACATGCAAGTTAATGGCATGTTTGAAAATTGGAACCTAACCAATTTCGTGCC  
TTTCAATTGTCCACAGCAAGACCCACAACAATATAATGTCTTTACAGACTTACATGGGATCAGTCAAGAGTTCCC  
CTACAAATCTGAAATGGATTCTATGCCTTATACACAGAACTTTATTTCTGTAAATCAGCCTGTATTACCACAACA  
TTCCAAATGTACAGAGCTGGACTACCCTATGGGGAGTTTTGAACCATCCCCATACCCCACTACTTCTAGTTTTAGA  
AGATTTTGTCACTTGTTTACAACCTCCTGAAAACCAAAAGCATGGATTAAATCCACAGTCAGCCATAATAACTCC  
TCAGACATGTTATGCTGGGGCCGTGTGATGTATCAGTGCCAGCCAGAACCTCAGCACACCCACGTGGGTCAGAT  
GCAGTACAATCCAGTACTGCCAGGCCAACAGGCATTTTAAACAAGTTTCAGAATGGAGTTTTAAATGAAACATA  
TCCAGCTGAATTAAATAACATAAATAACACTCAGACTACCACACATCTTCAGCCACTTCATCATCCGTGAGAAGC  
CAGACCTTTTCTGATTTGACATCCAGTGGATTCTGTAAATTTCCAAGCCCAATTTTGACCCTGGTTTTTGGATTA  
AATTAGTTTGTGAAGGATTATGGAAAAATAAACTGTCACTGTTGGACGTCAGCAAGTTCACATGGAGGCATTGA  
TGCATGCTATTACAAATTATTCCAAACCAATTTTAAATTTTGTCTTTAGAAAAGGGAGTTTTAAATGGTATCA  
AAATTACATATACTACAGTCAAGATAGAAAGGTGCTGCCACGGAGTGGTGAGGTACCGTCTACATTTACATTA  
TTCTGGGCACCACAAAATATACAAAACCTTTATCAGGGAACTAAGATTCTTTTAAATTAGAAAATATTCTCTATT  
TGAATTATTTCTGTCACAGTAAAAATAAAATACTTTGAGTTTTGAGCTACTGGATTCTTATTAGTTCCCCAAATA



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**FIGURE 257B**

CAAAGTTAGAGAACTAAACTAGTTTTTCCTATCATGTTAACCTCTGCTTTTATCTCAGATGTTAAAATAAATGGT  
TTGGTGCTTTTTATAAAAAGATAATCTCAGTGCTTTCCTCCTTCACTGTTTCATCTAAGTGCCTCACATTTTTTT  
CTACCTATAACACTCTAGGATGTATATTTTATATAAAGTATTCTTTTTCTTTTTTAAATTAATATCTTTCTGCAC  
ACAAATATTATTTGTGTTTTCTTAAATCCAACCAATTTTCATTAATTCAGGCATATTTTAACTCCACTGCTTACCT  
ACTTTCTTCAGGTAAAAGGGCAAATAATGATCGAAAAATAATTATTTATTACATAATTTAGTTGTTTTCTAGACT  
ATAAATGTTGCTATGTGCCTTATGTTGAAAAATTTAAAAGTAAAATGTCTTTCCAAATTATTTCTTAATTATTA  
TAAAAATATTAAGACAATAGCACTTAAATTCCTCAACAGTGTTTTTCAGAAGAAATAAATATACCACTCTTTACCT  
TTATTGATATCTCCATGATGATAGTTGAATGTTGCAATGTGAAAAATCTGCTGTTAACTGCAACCTTGTTTATTA  
AATTGCAAGAAGCTTTATTTCTAGCTTTTTTAATTAAGCAAAGCACCCATTTCAATGTGTATAAATTGTCTTTAAA  
AACTGTTTTAGACCTATAATCCTTGATAATATATTGTGTTGACTTTATAAATTCGCTTCTTAGAACAGTGGA  
CTATGTGTTTTTCTCATATTTGAGGAGTGTTAAGATTGCAGATAGCAAGGTTTGGTGCAAAGTATTGTAATGAGT  
GAATTGAATGGTGCATTGTATAGATATAATGAACAAAATTATTTGTAAGATATTTGCAGTTTTTCATTTTAAAA  
GTCCATACCTTATATATGCACTTAATTTGTTGGGGCTTTACATACTTTATCAATGTGTCTTTCTAAGAAATCAAG  
TAATGAATCCAACCTGCTTAAAGTTGGTATTAATAAAAAGACAACCACATAGTTCGTTTACCTTCAAACCTTAGGT  
TTTTTTAATGATATACTGATCTTCATTACCAATAGGCAAATTAATCACCTACCAACTTTACTGTCCTAACATGG  
ACTTTCAAAAAGAAAAATGACACCATCTTTTATTCTTTTTTTTTTTTTTTTTTTTGGAGAGAGAGTCTTACTCTGC  
CGCCCAAACCTGGAGTGCAGTGGCACAATCTTGGCTCACTGCAACCTCTACCTCCTGGGTTCAGTGATTCTCTTG  
CCTCAGCTCCCGAGTTGCTGGGATTGCGGGCATGGTGGCGTGAGCCTGTAGTCCTAGCTACTCGGGAGGCTGAG  
GCAGGAGAATAGCCTGAACCTGGGAATCGGAGGTTGCAGGGCCAAGATCGCCCCACTGCACTCCAGCCTGGCAAT  
AGACCGAGCTCCGCTCTCCAAAAAATAACAATTTTTATTCTTTTACTTTTTTTTAGTAAGTTAATGTATATA  
AAAATGGCTTCGGACAAAATATCTCTGAGTTCTGTGTATTTTCAGTCAAACTTTAAACCTGTAGAATCAATTTA  
AGTGTTGAAAAAATTTGTCTGAAACATTTTATAATTTGTTTCCAGCATGAGGTATCTAAGGATTTAGACCAGAG  
GTCTAGATTAATACTCTATTTTTACATTTAAACCTTTTATTATAAGTCTTACATAAACCATTTTTGTTACTCTCT  
TCCACATGTTACTGGATAAATTGTTTAGTGGAATAAGGCTTTTAAATCATGAATATGATGACAATCAGTTATAC  
AGTTATAAAATTAAGTTTGAAAAGCAATATTGTATATTTTATCTATATAAAATAACTAAAATGTATCTAAGA  
ATAATAAAATCACGTAAACC

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**FIGURE 258**

MNSSSANITYASRKRKRPVQKTVKPIPAEGIKSNPSKRHRDRLNTELDRLASLLPFPQDVINKLDKLSVLRLSVS  
YLRAKSFFDVALKSSPTERNGGQDNCRAANFREGNLQEGEFLQALNGFVLVTTDALVFYASSTIQDYLGFQQ  
SDVIHQSVYELIHTEDRAEFQRQLHWALNPSQCTESGQGIEEATGLPQTVVCYNPDQIPPENSPLMERCFCICRLR  
CLLDNSSGFLAMNFQGKLKYLHGQKKKGKDGSI LPPQLALFAIATPLQPPSILEIRTKNFIFRTKHKLDFTPIGC  
DAKGRIVLGYTEAELCTRGSYQFIHAADMLYCAESHIRMIKTGESGMIVFRLLTKNNRWTWVQSNARLLYKNGR  
PDYIIIVTQRPLTDEEGTEHLRKRNTKLPFMFTTGEAVLYEATNPFPAIMDPLPLRTKNGTSGKDSATTSTLSKDS  
LNPSSLLAAMMQQDESIYLYPASSTSSTAPFENNFFNESMNECRNWQDNTAPMGNDTILKHEQIDQPQDVNSFAG  
GHPGLFQDSKNSDLYSIMKNLGIDFEDIRHMONEKFFRNDFSGEVDFRDIDLTDEILTYVQDSLSKSPFIPSDYQ  
QQQSLALNSSCMVQEHLHLEQQQHHQKQVVVEPQQQLCQKMKHMQVNGMFENWNSNQFVPFNCPQQDPQQYNVF  
TDLHGISQEFYPYKSEMDSPYTQNFISCNQPVLPQH SKCTELDYPMG SFEPSPYPTTSSLED FVTCLQLPENQKH  
GLNPQSAIITPQTCYAGAVSMYQCQPEPQH THVGQM QYNPVLPGQQAFLNKFQNGVLNETYP AELNNINNTQTTT  
HLQPLHHPSEARPPFDLTSSGFL

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**FIGURE 259**

AGCTGGCTGAGAGGGGACTGGGCGCCGGCGGGGAAGGAGGAGCGCTAGGTCGGTGTACGACCGAGATTAGGGTGC  
GTGCCAGCTCCGGGAGGCCGCGGTGAGGGGCCGGGCCCAAGCTGCCGACCCGAGCCGATCGTCAGGGTCGCCAGC  
GCCTCAGCTCTGTGGAGGAGCAGCAGTAGTCGGAGGGTGCAGGATATTAGAAATGGCTACTCCCCAGTCAATTTT  
CATCTTTGCAATCTGCATTTTAATGATAACAGAATTAATTCTGGCCTCAAAAAGCTACTATGATATCTTAGGTGT  
GCCAAAATCGGCATCAGAGCGCCAAATCAAGAAGGCCTTTCACAAGTTGGCCATGAAGTACCACCCTGACAAAAA  
TAAGAGCCCGGATGCTGAAGCAAAATTCAGAGAGATTGCAGAAGCATATGAAACACTCTCAGATGCTAATAGACG  
AAAAGAGTATGATACACTTGGACACAGTGCTTTTACTAGTGGTAAAGGACAAAGAGGTAGTGGAAGTTCTTTTGA  
GCAGTCATTTAACTTCAATTTTGATGACTTATTTAAAGACTTTGGCTTTTTTGGTCAAAACCAAAACACTGGATC  
CAAGAAGCGTTTTGAAAATCATTTCCAGACACGCCAGGATGGTGGTTCCAGTAGACAAAGGCATCATTTCCAAGA  
ATTTTCTTTTGGAGGTGGATTATTTGATGACATGTTTGAAGATATGGAGAAAATGTTTTCTTTTAGTGTTTTGA  
CTCTACCAATCAGCATACAGTACAGACTGAAAATAGATTTTCATGGATCTAGCAAGCACTGCAGGACTGTCACTCA  
ACGAAGAGGAAAATATGGTTACTACATACACTGACTGTTTCAGGACAGTAGTCTTATTCTATTCTCACTAAATCCA  
ACTGGTTGACTCTTCCTCATTATCTTTGATGCTAAACAATTTTCTGTGAAGTATTTTGACAAGTGCATGATTTC  
CTTTAAACAATTTGATATAGCTATTAAATATATTTAAGGGTTTTTTTTTTTTTGACAAATTCAACATTCAACGAGT  
AGACAAAATGCTAATTATTTCCCTGATTAGGAAAGTTTCTTTAAAAAACACGTAATTTGCCTAGTGCTTTTTCT  
CTACCTGCCCTTGGGCTCACTAATATCACCAGTATTATTACCAAGAAAATATTGAGTTTACCTGATTAACTTTA  
AAAGTTAATTGTAGATTTAAATTGTGTGAACCTAATGATTTTTGCAGTGAAACCTTTACTAATTCAAAGTTGCAT  
GTTCTATGACATCTGTGACTTGCCTTGCAGAGTGACATGAACTGTATAATTGAGTCATTCAAGTAAAGGAGAAC  
AGTATCTTGGTTAATTGCTACTGAAAGGTTGAGAAAGGAATGGTTTGATATTTACCACAGCGCTGTGCCTTTCTA  
CAGTAGAACTGGGGTAAAGGAAATGGTTTTATTGCCCATAGTCATTTAGGCTGGAAAAAGTTGAAAACTTAACG  
AAATATTGCCAAGAGATTGTTATGTGTTTGGTTCCAGCCTAAAAATGATTTTGTAGTGTTGAAATCATAGCTACT  
TACATAGCTTTTTTCATATTTCTTTCTTAGTTGTTGGCACTCTTAGGTCTTAGTATGGATTTATGTGTTTGTGTGT  
GTGTAGTTTATCCTCTCTCTCATCTTTATCTAGAGATTGACTGATACCTCATTCTGTTTGTAACCAAGCCAGTA  
ATTTCTGTGCAACCTTACTATGTGCAATATTTTTTAAATCCTGAGAAATGTGTGCTTTTGTGTTTTCGGATAGACTTA  
TTTCTTTAGTTCTGCACTTTTCCACATTATACTCCATATGAGTATTAATCCTATGGATACATATTAAAAACAAGTG  
TCTCATACAACATTGTATGTGAGAGAAATATAAATATTTACAACCTGATATTCGTTGTTGTTTTATTGTTAAAAAG  
TTTATTATGCAACTCTGGAGGTATAGAGGGCATATAAGCTATGGACATATGCTGATCACAGGCTATATTTCATGA  
AGTTACTTTTGACCAACCTGAAAACCTGATAGGATTTTGTGTTGTCATTTGGTAATTTCTACTGCATTCTTACCATC  
CTTCTCTCAAAATTTTGATAGCTTGAAGATCTTTTAATTATAATTTTGTGTTGTTTCTAGGAGCAAGT  
GTTCTGCTGCCAGTTCTTTCTCTTTAGGCGTGGTTGAGAAAAAGCAGAACTTTACATAAAGCTGTATTTCTT  
AATCATCTTTAATTTGAAACTTAAGAAAATGAATTTATTCTGTTATATTTATGTAACCTATTTCTGGAAGTTAT  
ATCTACTAGTTTTGTTTGATAATAATAAAATTAGCTATACCTTGAA

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**FIGURE 260**

MATPQSIFIFAICILMITELILASKSYDILGVPKSASERQIKKAFHKLAMKYHPDKNKSPDAEAKFREIAEAYE  
TLSDANRRKEYDTLGHSFTSGKGQRGSGSSFEQSFNFNFDLFDKDFGFFGQNQNTGSKKRFENHFQTRQDGGSS  
RQRHHFQEFSGGGGLFDDMFEDMEKMFSGFDSTNQHTVQTENRFHGSSKHCRVTQRRGNMVTITYTDCSGQ

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**FIGURE 261**

AGGAAATGGTTTCTGGAAAACGTTAGTAAGGTCAGTTTTTAAACACTGAATCCAAGGTTGTCTTCTGGAATATCC  
AAATTGGTTATGACCAGAATGTGATTCAATTATACTAAGCTAAAGGAATAGATTAAAGAATTAGCAACAGTGGCCG  
GGTGACAGTGGCTCATGCCTGTAACCCAGCACTTTGGGGGAGGCCAGGTGGGTGGATCATTGAGGTCAGGAGT  
TTGAGACCAGCCTGGCCAACATGGTGAAACCTAAAAATACAAAAATTAGCCAGGTGTGGTGGCAGGTGCTTGTA  
TCCCAGCTGCTTGGGAGGCTGAAGCAGGAGAATTGCTTGAACCCGGAGGCAGGGGTTGCAGTGAGCCAAGATCAC  
ACCATTGCACTCCAGCCTGGGTGGCAGAGTGAGACTCTGTCTCAAAAAATTAAAAAGCAACAGTGTATATGCAATA  
GTTGCAAGATGTAAGATCACCCAAAGAGTATGCAGAGGGAAATGAGGGACAGAACCCAGAAATATTAATACCCAG  
GGAGTGAACAGGAGGAGGACCCCAAGAAGTTACTGAGTCAGATTTTTCCCACTCATCCAGGTGAAAGTTTAGGTC  
AATAATGTGAAATACCAGAGGGATTAAATGTCTACAGAAATAAAACCATGTCTCACATTAAGACAAACAAGTAGG  
TTGGAGGGATATTTTGAAAGGCAAGGTGATATTAACTTTATTCTGAAAAGTAGTTTGTTAGAGAAAGAGGCATGA  
TAAGAGTTGCAGTTAACTGATTGGAACATATGCAGCAGATGAACTGGAATAAAGGAACTCATCAGGAAATGAT  
TATAGTAATAAGGGCCAGAAATAAGGGCTTGCTTGCTGAACTAAAAACAAAGAGGATACAAAGGTTCTAGAAAT  
ATTTCAAAGGAATTAGCTTTAATTCAGCAATACTCATTGAGAATCACCTATGCACCTGGCTCTGAAGATGAAGTG  
CTGAGTAACTTAGACATGGACCCTGCTATCATGGAGATGGCAGATTATTGGTCAGAATGCTCTTACCTGTCATT  
GTAGCAATTTTGTTAGATCCTTAATACCTCTGAATTGCTAATAAACTTGTTTTGGCTGAAAAAATAGTCCTGTGA  
ATTTTACCATGCAGTTAAATAAGAACTAAAAGCAAACCTAAATACCACCAAAAAGGTTAGTAGTCTGTTATATG  
CATTAGCCTTAATCTAAGGAAATATTTTATTATAGGTCTCCTTGAAGAAAATGATATTTTCAGGAATGCTCAAGC  
AGGTGTTCTCATCAGCACTAATAGTCATCCAATCTTAAGGAAAAACAGAATATTTGATGGATTTGCCGCAGGTAT  
TGAAATTACAAATCACGCAACTGCAACACTAGAAGGCAATCAGATTTTTAACAACCGGTTTGGAGGCTTATTTTT  
AGCATCTGGTGTTAATGTGACAATGAAAGATAACAAAATAATGAACAATCAAGATGCCATAGAAAAGGCTGTTAG  
TAGAGGCCAATGTTTATATAAAATATCAAGTTATACCAGCTATCCCATGCATGATTTCTACAGATGTCATACTTG  
TAACACCACAGATCGAAATGCCATATGTGTGAACCTGCATTAAGAAGTGCCATCAGGGACATGATGTAGAGTTTAT  
TAGACATGATAGGTATGTAGCACACTTGCTTGATATATTACCCAATTACTTTCCCCCTCACTTTTCTAATATTTG  
GGTTTCATTTTGCTTTAGGTTTTCTGTGACTGTGGTGCTGGAACACTGTCTAATCCTTGACATTAGCTGGTGA  
GCCTACACATGATACAGATACACTATATGACTCTGCTCCACCTATAGAATCTAATACATTGCAGCACAACTGAAT  
TCCTTCCCTAAAGAAAAAGTCCTGCCATTGTAACATCATAACTTAAAAACACTTTTTTGGAAGAAGATTTAAAAATA  
TTTGCCCATGCTACAGGAAGAGACTGTATTAAAAATGGATACACAAGGTCAGTTGACACTATGAAGCTCAAGCTA  
CCAAAAAGAAAGTGCAATATATTGACTCAGGATCTCAAAGCTGGGTGTTTTAGCATTACTGTGTAAAGACTTGA  
AGGGACAGAAGTGAAGAAAAATAAGCTGCAATTTGTACAGATACCAACTTCTGAAAAGCTGGTGTTTTTACAAC  
AGCATTGAATGCAGTCCAATTTGCAGTAGTAATCTTCAATAGACAAGCAGCTTTGTTGCTGCCTTTATGGACATG  
GGTACCAATTGCTTTTGTAATATGGTAAAAATGTGAGCTAGCACTTCTGCGTTCCTTTTGATTTTTTTTTTTTAA  
CATGTATTGAGATTGAGAAATATGATTTTAAATGCCTTAATCTCATGTAGTTTGTTTTTAATTTCAAGCAAAATCT  
TACTGTACTTGAATGTGCCCTGTTTTGTGTAGCACACCTAGACTTGCTGTAACCTGACTCATGTCCCAGTATGTAC  
GTTCTTTCTATGAAAGAGAAAACTAATCTTAAATTATATCCAGCAATGTTTCTGGGTATCCTTTAAGAAAAGTT  
AAGACTATTATTTCCCTTCCCTTCCCTGTGCAGCATTCAAAAAATCACCCCTAGAAAAAGTGAGTGTTTTAATGAGA  
CTTCTTAGGAAGGGATGCACTGTAAAACAAAAGTATTCTTGTAACCTCAGTTTTGTGAAAGGTAAAAAACTACTAT  
GTTTTAAGTACACTTTAGAAAGTCTCTTCAAAACAAACAGTCTGTATTTGAACTCTGTTCATAGTTTTTTTTTG  
AACAGTTTAGACAAAACCTGTTGGAAATTAAACCAATTTCCCTGCATTAAGCTGAGACAAGTATATAAACAGCCCTA  
TACAGTTTCATAGCTTTTCCCTCCCCATTTATGTGTATTGGTGACAGTGGGTATAAACAGCCTGAAAGTGATG  
CATGTACCATAACATTTAGACTTAATATATTGTGGAGTATTCAATAACCATTATGTAGAAGGTAGATAAGAATTA  
AAAGGGTTTAATTTCCCTAGAAAAGAAATGGAAAAATGGTCATTTTTAAAAAATAAAGTTTATTAGATCATAATGT  
TGTCTGAATTTACCACCTTTGTCAGAAGTCAACTCAAAGCTTCCAATGTAGTCAGTCTATAATTCCTTAATCAAA  
GTCAGCAATTTATGGACAGCTTCAGCAITTCAGTTGACCTTTCACTAGCCAGGCAAACCTCCCTTAAATTTAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 262**

MKDNKIMNNQDAIEKAVSRGQCLYKISSYTSYPMHDFYRCHTCNTTDRNAICVNCIKKCHQGHDFEIRHDRVVA  
HLLDILPNYFPPHFSNIWVSFCFRFFCDCGAGTLSNPCTLAGEPTHDTDTLYDSAPPIESNTLQHN

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**FIGURE 263**

CGCGCCCTCCCTCCTCGCGGACCTGGCGGTGCCGGCGCCCGGAGTGGCCCTTTAAAAGGCAGCTTATTGTCCGG  
AGGGGGCGGGCGGGGGCGCCGACCGCGGCCTGAGGCCCGGCCCTCCCTCTCCCTCCCTCTGTCCCCGCGTCG  
CTCGCTGGCTAGCTCGCTGGCTCGCTCGCCCGTCCGGCGCACGCTCCGCCTCCGTTCAGTTGGCTCCGCTGTCCGG  
TGCGCGGCGTGGAGCGGCAGCCGGTCTGGACGCGCGGGCGGGGCTGGGGGCTGGGAGCGCGGCGCGCAAGATCTC  
CCCGCGGAGAGCGGCCCTGCCACCGGGCGAGGCCTGCGCCGCGATGCGCAGAGATGGGCAGTAAAGGGGTGACG  
GCGGGAAAGATCGCCAGCAACGTGCAGAAGAAGCTCACCCGCGCGCAGGAGAAGGTTCTCCAGAAGCTGGGGAAG  
GCAGATGAGACCAAGGATGAGCAGTTTGAGCAGTGCCTCAGAATTTCAACAAGCAGCTGACGGAGGGCACCCGG  
CTGCAGAAGGATCTCCGGACCTACCTGGCCTCCGTCAAAGCCATGCACGAGGCTTCCAAGAAGCTGAATGAGTGT  
CTGCAGGAGGTGTATGAGCCCGATTGGCCCGGAGGGATGAGGCAACAAGATCGCAGAGAACAACGACCTGCTG  
TGGATGGATTACCACCAGAAGCTGGTGGACCAGGCGCTGCTGACCATGGACACGTACCTGGGCCAGTTCCCCGAC  
ATCAAGTCACGCATTGCCAAGCGGGGGCGCAAGCTGGTGGACTACGACAGTGCCCGGCACCACTACGAGTCCCTT  
CAAAGTCCCAAAAAGAAGGATGAAGCCAAATTTGCCAAGGCCGAGGAGGAGCTCATCAAAGCCCAGAAGGTGTTT  
GAGGAGATGAATGTGGATCTGCAGGAGGAGCTGCCGTCCCTGTGGAACAGCCGCGTAGGTTTTCTACGTCAACACG  
TTCCAGAGCATCGCGGGCCTGGAGGAAAACCTTCCACAAGGAGATGAGCAAGCTCAACCAGAACCTCAATGATGTG  
CTGGTCCGCCTGGAGAAGCAACACGGGAGCAACACCTTACGGTCAAGGCCAGCCAGCCAGAAAGAAAAGTAAACTG  
TTTTCGCGGCTGCGCAGAAAGAAGAACAGTGACAACGCGCCTGCAAAAGGGAACAAGAGCCCTTCGCCTCCAGAT  
GGCTCCCTGCGGCCACCCCGAGATCAGAGTCAACCACGAGCCAGAGCCGGCCGGCGGGGCCACGCCCCGGGGCC  
ACCTCCCCAAGTCCCCATCTCAGCCAGCAGAGGCCTCGGAGGTGGCGGTGGGACCCAACCTGCGGCTGGAGCC  
CAGGAGCCAGGGGAGACGGCGGCAAGTGAAGCAGCCTCCAGCTCTCTTCCTGCTGTCGTGGTGGAGACCTTCCCA  
GCAACTGTGAATGGCACCCTGGAGGGCGGCAGTGGGGCCGGGCGCTTGGACCTGCCCCAGGTTTCATGTTCAAG  
GTACAGGCCCAGCAGACTACACGGCCACTGACACAGACGAGCTGCAGCTCAAGGCTGGTGTGTGGTGGTGGTGGT  
ATCCCTTCCAGAACCCTGAAGAGCAGGATGAAGGCTGGCTCATGGGCGTGAAGGAGAGCGACTGGAACCAGCAC  
AAGGAGCTGGAGAAGTGCCGTGGCGTCTTCCCCGAGAACTTCACTGAGAGGGTCCCATGACGGCGGGGCCAGGC  
AGCCTCCGGGCGTGTGAAGAACCTCCTCCCGAAAAATGTGTGGTTCTTTTTTTGTTTTGTTTTCGTTTTTCA  
TCTTTTGAAGAGCAAAGGGAATCAAGAGGAGACCCCCAGGCAGAGGGGCGTTCTCCCAAAGATTAGGTCGTTTT  
CCAAAGAGCCGCGTCCCGGCAAGTCCGGCGGAATTCACAGTGTTCTTGAAGCTGCTGTGTCTCTAGTTGAGTT  
TCTGGCGCCCCCTGCCTGTGCCCGCATGTGTGCCTGGCCGAGGGCGGGGCTGGGGGCTGCCGAGCCACCATGCTT  
GCCTGAAGCTTCGGCCGCGCCACCCGGCAAGGGTCTCTTTTCTGGCAGCTGCTGTGGGTGGGGCCAGACAC  
CAGCCTAGCCTGGCTCTGCCCCGAGACGGTCTGTGTGCTGTTTGAAAATAAATCTTAGTGTTCAAAACAAAATG  
AAACAAAAAAAATGATAAAACTCTCAAAAAA

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**FIGURE 264**

MAEMGSKGVTAGKIASNVQKKLTRAQEKVLQKLGADETKDEQFEQCVQNFNKQLTEGTRLQKDLRITYLASVKAM  
HEASKKLINECLQEVYEPDWPGRDEANKIAENNDLLWMDYHQKLVDQALLTMDTYLGQFPDIKSRIAKRGRKLV  
DSARHHYESLQTAKKKDEAKIAKAEELIKAKQVFEEMNVDLQEELPSLWNSRVGFYVNTFQSIAGLEENFHKEM  
SKLNQNLNDVLVGLEKQHGSNTFTVKAQPSDNAPAKGNKSPSPDGS PAATPEIRVNHEPEPAGGATPGATLPKS  
PSQSSLPVVVETFPATVNGTVEGGSGAGRLDLP PGFMFKVQAQHDYTATDTDELQLKAGDVVLVIPFQNP EEQD  
EGWLMGVKESDWNQHKLEKCRGVFPENF TERVP



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FIGURE 265A

AGATTTGATAATGGGCTGCATTAAAAGTAAAGAAAACAAAAGTCCAGCCATTAAATACAGACCTGAAAATACTCC  
AGAGCCTGTCAGTACAAGTGTGAGCCATTATGGAGCAGAACCCACTACAGTGTACCATGTCCGTATCTTCAGC  
AAAGGGAACAGCAGTTAATTTTCAGCAGTCTTTCCATGACACCATTGGAGGATCCTCAGGGGTAACGCCTTTTGG  
AGGTGCATCTTCCTCATTTTCAGTGGTGCCAAGTTCATATCCTGCTGGTTTAAACAGGTGGTGTACTATATTTGT  
GGCCTTATATGATTATGAAGCTAGAACTACAGAAGACCTTTTCAATTAAGAAGGGTGAAAAGATTTCAAATAATTAA  
CAATACGGAAGGAGATTGGTGGGAAGCAAGATCAATCGCTACAGGAAAGAATGGTTATATCCCGAGCAATTATGT  
AGCGCCTGCAGATTCCATTTCAGGCAGAAGAATGGTATTTTGGCAAAATGGGGAGAAAAGATGCTGAAAGATTACT  
TTTGAATCCTGGAAATCAACGAGGTATTTTCTTAGTAAGAGAGAGTGAAACAATAAGGTGCTTATTCCTTTTC  
TATTCGTGATTGGGATGAGATAAGGGGTGACAATGTGAAACACTACAAAATTAGGAAACTTGACAATGGTGGATA  
CTATATCACAACCAGAGCACAATTTGATACTCTGCAGAAATTGGTGAAACACTACACAGAACATGCTGATGGTTT  
ATGCCACAAGTTGACAACCTGTGTGTCCAACCTGTGAAACCTCAGACTCAAGGTCTAGCAAAAGATGCTTGGGAAAT  
CCCTCGAGAATCTTTGCGACTAGAGGTTAACTAGGACAAGGATGTTTCGGCGAAGTGTGGATGGGAACATGGAA  
TGGAACCACGAAAGTAGCAATCAAAACACTAAAACCAGGTACAATGATGCCAGAAGCTTTCCTTCAAGAAGCTCA  
GATAATGAAAAAATTAAGACATGATAAACTTGTTCCACTATATGCTGTTGTTTCTGAAGAACCAATTTACATTGT  
CACTGAATTTATGTCAAAGGAAGCTTATTAGATTTCTTAAGGAAGGAGATGAAAAGTATTTGAAGCTTCCACA  
GCTGGTTGATATGGCTGCTCAGATTGCTGATGGTATGGCATATATTGAAAGAATGAACTATATTCACCGAGATCT  
TCGGGCTGCTAATATTCTTGTAGGAGAAAATCTTGTGTGCAAAATAGCAGACTTGGTTTAGCAAGGTTAATTGA  
AGACAATGAATACACAGCAAGACAAGGTGCAAAATTTCCAATCAAATGGACAGCTCCTGAAGCTGCACTGTATGG  
TCGGTTTACAATAAAGTCTGATGTCTGGTCAATTTGGAATCTGCAACAGAACTAGTAACAAAGGGCCGAGTGCC  
ATATCCAGGTATGGTGAACCGTGAAGTACTAGAACAAGTGGAGCGAGGATACAGGATGCCGTGCCCTCAGGGCTG  
TCCAGAATCCCTCCATGAATTGATGAATCTGTGTTGGAAGAAGGACCCTGATGAAAGACCAACATTTGAATATAT  
TCAGTCCTTCTTGAAGACTACTTCACTGCTACAGAGCCACAGTACCAGCCAGGAGAAAATTTATAATTCAGTA  
GCCTATTTTATATGCACAAATCTGCCAAAATATAAAGAACTTGTGTAGATTTTCTACAGGAATCAAAGAAGAAA  
ATCTTCTTTACTCTGCATGTTTTTAATGGTAAACTGGAATCCCAGATATGGTTGCACAAAACCACTTTTTTTTCC  
CCAAGTATTAACCTCTAATGTACCAATGATGAATTTATCAGCGTATTTTCAGGGTCCAAACAAAATAGAGCTAAGA  
TACTGATGACAGTGTGGGTGACAGCATGGTAATGAAGGACAGTGAGGCTCCTGCTTATTTATAAATCATTTCTTT  
TCTTTTTTTCCCCAAAGTCAGAATTGCTCAAAGAAAATTATTTATTGTTACAGATAAAACTTGAGAGATAAAAAG  
CTATACCATAATAAAATCTAAAATTAAGGAATATCATGGGACCAAATAATCCATTCCAGTTTTTTTAAAGTTCT  
TGCATTTATTATTCTCAAAGTTTTTTCTAAGTTAAACAGTCAGTATGCAATCTTAATATATGCTTTCTTTTGCA  
TGGACATGGGCCAGGTTTTTCAAAGGAATATAAACAGGATCTCAAACCTGATTAAATGTTAGACCACAGAAGTG  
GAATTTGAAAGTATAATGCAGTACATTAATATTATGTTTCACTGAAAGTAAAGAACTTTTTTCACTTCAG  
TCCTTTTCTGAAGAGTTTGACTTAGAATAATGAAGGTAAGTAAAGTGAAGTAACTCTGTATGAGGTTGCATTG  
ATTTTTTAAGGCAATATATAATTGAAACTACTGTCCAATCAAAGGGGAAATGTTTTGATCTTTAGATAGCATGCA  
AAGTAAGACCCAGCATTTTAAAAGCCCTTTTTTAAAACACTAGACTTCGTACTGTGAGTATTGCTTATATGTCCTTA  
TGGGGATGGGTGCCACAAATAGAAAATATGACCAGATCAGGGACTTGAATGCACCTTTTGCTCATGGTGAATATAG  
ATGAACAGAGAGGAAAATGTATTTAAAAGAAATACGAGAAAAGAAAATGTGAAAGTTTACAAGTTAGAGGGATG  
GAAGGTAATGTTTAAATGTTGATGTCATGGAGTGACAGAATGGCTTTGCTGGCACTCAGAGCTCCTCACTTAGCTA  
TATTTCTGAGACTTTGAAGAGTTATAAAGTATAACTATAAACTAATTTTTTCTTACACACTAAATGGGTATTTGTT  
CAAAATAATGAAGTTATGGCTTCACATTCATTGCAGTGGGATATGGTTTTTATGTAAACATTTTGTAGAACTCCA  
GTTTTCAAATCATGTTTGAATCTACATTCATTTTTTTGTTTTCTTTTTTGAGACGGAGTCTCGCTCTGCCGCC  
CAGGCTGGAGTGCAAGTGGCGGATCTCGGCTCACTGCAAGCTCTGCCTCCCAGGTTTACACCACTTCTCCTGCCTC  
AGCCTCCCGAGTAGCTGGGACTACAGGTGCCACCACCACGCCTGGCTAGTTTTTTGTATTTTGTAGTAGAGACGC  
AGTTTACCCTGTTAGCCAGGATGGTCTCGATCTCCTGACCTTGTGATCTGCCCCGCTCGGCCTCCCAAAGTGCT  
GGGATTACAGGCGTGAGCCACCGCGCCAGCCTACATTCATTTCTAAAGTCTATGTAATGGTGGTCATTTTTTCC  
CTTTTAGAATACATTAAATGGTTGATTTGGGGAGGAAAACCTTATTCTGAATATTAACGGTGGTGAAGGGGACA  
GTTTTTACCCTAAAGTGCAAAAGTGAAACATACAAAATAAGACTAATTTTTAAGAGTAACTCAGTAATTTCAAAA  
TACAGATTTGAATAGCAGCATTAGTGGTTTGAGTGTCTAGCAAAGGAAAAATTGATGAATAAAATGAAGGTCTGG  
TGTATATGTTTTAAATACTCTCATATAGTCACACTTTAAATTAAGCCTTATATTAGGCCCTCTATTTTCAGGA

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**FIGURE 265B**

TATAATTCTTAACATCATTATTTACCTGATTTTAATCATCAGATTCGAAATTCTGTGCCATGGCGTATATGTTT  
 AAATTCAAACCATTTTTAAATGTGAAGATGGACTTCATGCAAGTTGGCAGTGGTTCTGGTACTAAAAATTGTGG  
 TTGTTTTTCTGTTTACGTAACTGCTTAGTATTGACACTCTCTACCAAGAGGGTCTTCCTAAGAAGAGTGCTGT  
 CATTATTTCTCTTATCAACAACCTGTGACATGAGATTTTTTAAGGGCTTTATGTGAACATGATATTGTAATTT  
 TTCTAAGCATATTCAAAAGGGTGACAAAATTACGTTTATGTACTAAATCTAATCAGGAAAGTAAGGCAGGAAAAG  
 TTGATGGTATTCATTAGGTTTTAACTGAATGGAGCAGTTCCTTATATAATAACAATTGTATAGTAGGGATAAAAC  
 ACTAACTTAATGTGTATTCATTTTAAATTGTTCTGTATTTTTAAATTGCCAAGAAAAACAACCTTTGTAAATTTGG  
 AGATATTTTCCAACAGCTTTTCGTCTTCAGTGTCTTAATGTGGAAGTTAACCCTTACCAAAAAAGGAAGTTGGCA  
 AAAACAGCCTTCTAGCACACTTTTTTAAATGAATAATGGTAGCCTAACTTAATATTTTTATAAAGTATTGTAAT  
 ATTGTTTTGTGGATAATTGAAATAAAAAGTTCTCATTGAATGCACCTATTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 266**

MGCIKSKENKSPAICYRPENTPEPVSTSVSHYGAEP TTVSPCPSSSAKGTAVNFSSLSMTPFGGSSGVTPFGGAS  
SSFSVVPSSYPAGLTGGVTIFVALYDYEAR TTEDLSFKKGERFQI INNTEGDWWEARS IATGKNGYIPSNYVAPA  
DSIQAEWYFGKMGRKDAERLLL NPGNQRGIFLVRESE TTKGAYSLSIRDWDEIRGDNVKHYKIRKLDNGGYYIT  
TRAQFDTLQKLVKHYTEHADGLCHKLT TVCPTVKPQTQGLAKDAWEIPRESLRLEV KLGQGCFGEVWMGTWNGTT  
KVAIKTLKPGTMMPEAFLQEAQIMKKLRHDKLVPLYAVVSEEP IYIVTEFMSKGSLLDFLKEGDGKYLKLPQLVD  
MAAQIADGMAYIERMNYIHRDLRAANILVGENLVCKIADFG LARLIEDNEYTARQGAKEPIKWTAP EAALYGRFT  
IKSDVWSFGILQTELVTKGRVPYPGMVNREVLEQVERGYRMPC PQGCPESLHELMNLCWKKDPDERPTFEYIQSF  
LEDYFTATEPQYQPGENL

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**FIGURE 267A**

AGATTTGATA**ATG**GGCTGCATTAAAAGTAAAGAAAACAAAAGTCCAGCCATTAAATACAGACCTGAAAATACTCC  
AGAGCCTGTCAGTACAAGTGTGAGCCATTATGGAGCAGAACCCACTACAGTGTACCATGTCCGTCATCTTCAGC  
AAAGGGAACAGCAGTTAATTTTCAGCAGTCTTTCCATGACACCATTGGAGGATCCTCAGGGGTAACGCCTTTTGG  
AGGTGCATCTTCCTCATTTTCAGTGGTGCCAAGTTCATATCCTGCTGGTTTAAACAGGTGGTGTACTATATTTGT  
GGCCTTATATGATTATGAAGCTAGAAGCTACAGAAGACCTTTTCAATTAAGAAGGGTGAAAAGATTTCAAATAATTAA  
CAATACGGAAGGAGATTGGTGGGAAGCAAGATCAATCGCTACAGGAAAGAATGGTTATATCCCGAGCAATTATGT  
AGCGCCTGCAGATTCCATTTCAGGCAGAAGAATGGTATTTTGGCAAAATGGGGAGAAAAGATGCTGAAAGATTACT  
TTTGAATCCTGGAAATCAACGAGGTATTTTCTTAGTAAGAGAGAGTGAAACAATAAGGTGCTTATTCCTTTTC  
TATTCGTGATTGGGATGAGATAAGGGGTGACAATGTGAAACACTACAAAATTAGGAACTTGACAATGGTGGATA  
CTATATCACAACCAGAGCACAAATTTGATACTCTGCAGAAATTGGTGAAAACACTACACAGAACATGCTGATGGTTT  
ATGCCACAAGTTGACAACCTGTGTGTCCAACCTGTGAAACCTCAGACTCAAGGTCTAGCAAAAGATGCTTGGGAAAT  
CCCTCGAGAATCTTTGCGACTAGAGGTAAACTAGGACAAGGATGTTTCGGCGAAGTGTGGATGGGAACATGGAA  
TGGAAACCACGAAAGTAGCAATCAAAACACTAAAACCAGGTACAATGATGCCAGAAGCTTTCCTTCAAGAAGCTCA  
GATAATGAAAAAATTAAGACATGATAAACTTGTTCCACTATATGCTGTTGTTTCTGAAGAACCAATTTACATTGT  
CACTGAATTTATGTCAAAAGGAAGCTTATTAGATTTCTTAAGGAAGGAGATGAAAAGTATTTGAAGCTTCCACA  
GCTGGTTGATATGGCTGCTCAGATTGCTGATGGTATGGCATATATTGAAAGAATGAACTATATTCACCGAGATCT  
TCGGGCTGCTAATATTCTTGTAGGAGAAAATCTTGTGTGCAAAATAGCAGACTTGGTTTAGCAAGGTTAATTGA  
AGACAATGAATACACAGCAAGACAAGGTGCAAAATTTCCAATCAAATGGACAGCTCCTGAAGCTGCACTGTATGG  
TCGGTTTACAATAAAGTCTGATGTCTGGTCATTTGGAATTCTGCAACAGAACTAGTAACAAAGGGCCGAGTGCC  
ATATCCAGGTATGGTGAACCGTGAAGTACTAGAACAAGTGGAGCGAGGATACAGGATGCCGTGCCCTCAGGGCTG  
TCCAGAATCCCTCCATGAATTGATGAATCTGTGTTGGAAGAAGGACCCTGATGAAAGACCAACATTTGAATATAT  
TCAGTCCTTCTTGGAAGACTACTTCACTGCTACAGAGCCACAGTACCAGCCAGGAGAAAATTTA**TAAT**TCAAGTA  
GCCTATTTTATATGCACAAATCTGCCAAAATATAAAGAAGCTTGTGTAGATTTTCTACAGGAATCAAAAGAAGAAA  
ATCTTCTTTACTCTGCATGTTTTTAATGGTAAACTGGAATCCCAGATATGGTTGCACAAAACCACTTTTTTTTCC  
CCAAGTATTAAGTCTAATGTACCAATGATGAATTTATCAGCGTATTTTCAGGGTCCAAACAAAATAGAGCTAAGA  
TACTGATGACAGTGTGGGTGACAGCATGGTAATGAAGGACAGTGAGGCTCCTGCTTATTTATAAATCATTTCTTT  
TCTTTTTTTCCCCAAAGTCAGAAATTGCTCAAAGAAAATTATTTATTGTTACAGATAAACTTGAGAGATAAAAG  
CTATACCATAATAAAATCTAAAATTAAGGAATATCATGGGACCAAATAATCCATTCCAGTTTTTTTAAAGTTTCT  
TGCATTTATTATTCTCAAAAGTTTTTTCTAAGTTAAACAGTCAGTATGCAATCTTAATATATGCTTTCTTTTGCA  
TGGACATGGGCCAGGTTTTTCAAAAGGAATATAAACAGGATCTCAAACCTGATTAAATGTTAGACCACAGAAGTG  
GAATTTGAAAGTATAATGCAGTACATTAATATTATGTTTCACTGAAAGTAAAGAACTTTTTCACTTCAG  
TCCTTTTCTGAAGAGTTTGACTTAGAATAATGAAGGTAAGTAAAGTGAAGTAACTCTTGATGAGGTTGCATTG  
ATTTTTTAAGGCAATATATAATTGAAACTACTGTCCAATCAAAGGGGAAATGTTTTGATCTTTAGATAGCATGCA  
AAGTAAGACCCAGCATTTTAAAAGCCCTTTTTTAAAACACTAGACTTCGTAAGTGTGAGTATTGCTTATATGTCCTTA  
TGGGGATGGGTGCCACAAATAGAAAATATGACCAGATCAGGGACTTGAATGCACTTTTGCTCATGGTGAATATAG  
ATGAACAGAGAGGAAAATGTATTTAAAAGAAATACGAGAAAAGAAAATGTGAAAGTTTTACAAGTTAGAGGGATG  
GAAGGTAATGTTTAAATGTTGATGTCATGGAGTGACAGAATGGCTTTGCTGGCACTCAGAGCTCCTCACTTAGCTA  
TATTCGTAGACTTTGAAGAGTTATAAAGTATAACTATAAACTAATTTTTCTTACACACTAAATGGGTATTTGTT  
CAAAATAATGAAGTTATGGCTTCACATTCATTGCAGTGGGATATGGTTTTTATGTAAACATTTTGTAGAACTCCA  
GTTTTCAAAATCATGTTTGAATCTACATTCATTTTTTTTTGTTTTCTTTTTTGAGACGGAGTCTCGCTCTGCCGCC  
CAGGCTGGAGTGCAAGTGGCGGATCTCGGCTCACTGCAAGCTCTGCCTCCCAGGTTTACACCATTCTCCTGCCTC  
AGCCTCCCAGTAGCTGGGACTACAGGTGCCACCACCACGCCTGGCTAGTTTTTTGTATTTTAGTAGAGACGC  
AGTTTCACCGTGTAGCCAGGATGGTCTCGATCTCCTGACCTTGTGATCTGCCCGCTCGGCCTCCCAAAGTGCT  
GGGATTACAGGCGTGAGCCACCGCGCCAGCCTACATTCATTTCTAAAGTCTATGTAATGGTGGTCATTTTTTCC  
CTTTTAGAATACATTAAATGGTTGATTTGGGGAGGAAAACCTTATTCTGAATATTAACGGTGGTGAAAAGGGGACA  
GTTTTTACCCTAAAGTGCAAAAGTGAAACATACAAAATAAGACTAATTTTAAAGAGTAACTCAGTAATTTCAAAA  
TACAGATTTGAATAGCAGCATTAGTGGTTTGAGTGTCTAGCAAAGGAAAAATTGATGAATAAAATGAAGGTCTGG  
TGTATATGTTTTAAATACTCTCATATAGTCACACTTTAAATTAAGCCTTATATTAGGCCCTCTATTTTCAGGA

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**FIGURE 267B**

TATAATTCTTAACATCATTATTTACCTGATTTTAATCATCAGATTGAAAATTCTGTGCCATGGCGTATATGTTT  
AAATTCAAACCATTTTTAAATGTGAAGATGGACTTCATGCAAGTTGGCAGTGGTTCTGGTACTAAAAATTGTGG  
TTGTTTTTCTGTTTACGTAACCTGCTTAGTATTGACACTCTCTACCAAGAGGGTCTTCCTAAGAAGAGTGCTGT  
CATTATTTCTCTTATCAACAACCTGTGACATGAGATTTTTTAAGGGCTTTATGTGAACATATGATATTGTAATTT  
TTCTAAGCATATTCAAAAGGGTGACAAAATTACGTTTATGTACTAAATCTAATCAGGAAAGTAAGGCAGGAAAAG  
TTGATGGTATTCATTAGGTTTTAACTGAATGGAGCAGTTCCTTATATAATAACAATTGTATAGTAGGGATAAAC  
ACTAACTTAATGTGTATTCATTTTAAATTGTTCTGTATTTTTAAATTGCCAAGAAAAACAACCTTTGTAAATTTGG  
AGATATTTTCCAACAGCTTTTCGTCTTCAGTGTCTTAATGTGGAAGTTAACCCCTACCAAAAAAGGAAGTTGGCA  
AAAACAGCCTTCTAGCACACTTTTTTAAATGAATAATGGTAGCCTAACTTAATATTTTTATAAAGTATTGTAAT  
ATTGTTTTGTGGATAATTGAAATAAAAAGTTCTCATTGAATGCACCTATTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 268**

MGCIKSKENKSPAICYRPENTPEPVSTSVSHYGAEP TTVSPCPSSSAKGTAVNFSSLSMTPFGGSSGVTPFGGAS  
SSFSVVPSSYPAGLTGGVTIFVALYDYEAR TTEDLSFKKGERFQIINNTEGDWWEARSIATGKNGYIPSNYVAPA  
DSIQAE EWYFGKMGRKDAERLLL NPGNQRGIFLVRESE TTKGAYSLSIRDWDEIRGDNVKHYKIRKLDNGGYYIT  
TRAQFD TLQKL VKHYTEHADGLCHKLT TVCPTVKPQTQGLAKDAWEIPRESLRLEV KLGQGC FGEVWMGTWNGTT  
KVAIKTLKPGTMMPEAFLQEAQIMKKLRHDKLVPLYAVVSEEF IYIVTEFMSKGSLLDFLKEGDGKYLKLPQLVD  
MAAQIADGMAYIERMNYIHRDLRAANILVGENLVCKIADFG LARLIEDNEYTARQGAKFPIKWTAP EAALYGRFT  
IKSDVWSFGILQTELVTKGRVPYPGMVNREVLEQVERGYRMPCPQGCPESLHELMNLCWKKDPDERPTFEYIQSF  
LEDYFTATEPQYQPGENL

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**FIGURE 269**

CTCGGCCCCGGGCTGCCGCGCCAGCCCGTCTCCGCGGCGGGGGACCGGGCTGCCTTGGCCCCCTCAGCGCTCGCGT  
CTTTTCCGGCAGTTGGAACGCTTCCTGTTGTCTCACCCGTAACCGCCTGTTGCCCCCTGTCTCAGAGTCCCTCA  
CGCGTCCCCTCCCGTCTTTGGCTCGTTGGCTGCCGCGCGGGGCTTCGCCAGCCTTCAAGTCGAGACTACTGGC  
CGAAGGGGCGTCTGCCGCTCTCCGCGTCCCCAGCCCTGCCTCTCCCTGGGCTCTGCAGCC**ATG**GCAATGACAGG  
CTCAACACCTTGCTCATCCATGAGTAACCACACAAAGGAAAGGGTGACAATGACCAAAGTGACACTGGAGAATTT  
TTATAGCAACCTTATCGCTCAACATGAAGAACGAGAAATGAGACAAAAGAAGTTAGAAAAGGTGATGGAAGAAGA  
AGGCCTAAAAGATGAGGAGAAACGACTCCGGAGATCAGCACATGCTCGGAAGGAAACAGAGTTTCTTCGTTTGAA  
GAGAACAAGACTTGATTGGAAGATTTTGAGTCCTTAAAAGTAATAGGCAGAGGAGCATTGTGGTGAGGTACGGCT  
TGTTCAGAAGAAAGATACGGGACATGTGTATGCAATGAAAATACTCCGTAAAGCAGATATGCTTGAAAAGAGCA  
GGTTGGCCACATTTCGTGCCGAGCGTGACATTCTAGTGGAGGCAGACAGTTTGTGGGTTGTGAAAATGTTCTATAG  
TTTTCAGGATAAGCTAAACCTCTACCTAATCATGGAGTTCTTGCTGGAGGGGACATGATGACCTTGTTGATGAA  
AAAAGACACTCTGACAGAAGAGGAGACTCAGTTTTATATAGCAGAAACAGTATTAGCCATAGACTCTATTACCA  
ACTTGGATTTCATCCACAGAGACATCAAACCAGACAACCTTCTTTTGGACAGCAAGGGCCATGTGAAACTTTCTGA  
CTTTGGTCTTTGCACAGGACTGAAAAAGCACATAGGACAGAATTTTATAGGAATCTGAACCACAGCCTCCCCAG  
TGATTTCACTTTCCAGAACATGAATTCCAAAAGGAAAGCAGAAACCTGGAAGAAATAGACGTCAGCTAGCCTT  
CTCCACAGTAGGCACTCTGACTACATTGCTCCTGAGGTGTTTCATGCAGACCGGGTACAACAAGCTCTGTGATTG  
GTGGTCGCTTGGGGTGATCATGTATGAGATGCTCATCGGCTACCCACCTTCTGTTCTGAGACCCCTCAAGAGAC  
ATATAAGAAGGTGATGAACTGGAAAGAACTTTGACTTTTCTCCAGAAGTTCCCATCTCTGAGAAAGCCAAGGA  
TCTAATTTTGAGGTTCTGCTGTGAATGGGAACATAGAATTGGAGCTCCTGGAGTTGAGGAAATAAAAAGTAACTC  
TTTTTTTGAAGGCGTTGACTGGGAACATATCAGAGAGAGACCTGCTGCAATATCTATTGAAATCAAAGCATTGA  
TGATACCTCAAACCTCGATGAGTTTCCAGAATCTGATATTCTTAAGCCAACAGTGCCACAAGTAATCATCCTGA  
GACTGACTACAAGAACAAAGACTGGGTCTTCATCAATTACACGTACAAGCGCTTTGAGGGCCTGACTGCAAGGGG  
GGCAATACCTTCTACATGAAAGCAGCAAA**TAG**TACTCTTGCCACGGAATCCTATGTGGAGCAGAGTTCTTTGT  
ATAACATCATGCTTTTCTCTCACACTCTTGAAGAGCTTCCAAGAAGTTGATGGAACCCACCAATATGTCATAGT  
AAAGTCTCCTGAAATGTGGTAGTAAGAGGATTTTCTTCCATAATGCATCTGAAAAACTGTAAACAAAGACAACCA  
TTTCTACTACGTCGGCCATAAACAGCTATCCTGCTTGGAAAGAGAAGCATCATGAGCCAATTTGATAGGTGTTTT  
AAAAATAACTTGAGTTTCTTAAGTTCATCAGAATGAAGGGGAAAAACAGCCATCATCCAACATTATTGAGATTG  
TCGTGTATAGTCATCGAATATCAGCCAGTTCTGTGAATTTTGTGACAGCTCTCTGCCAAGCCCACCAAGTATTT  
CCTTTATAGCTAAAAGTTCATAGTACTAAGGAAATAAAGCAATAAAGACAGTCTCAGCAGCCAGGATTCTGGCT  
GAAGGAAATGATCCGCCACCCTGAGGGTGATGGTAGTTTCTACCCATACCTCAGCCTCAGGCGAGTGCGTTA  
TAGCCTCCATTTCATGGTGCACTTTATTTATGGTACTAAGATAAAGACTGTCAATCCATTGATTTATCTCCTCTG  
TCCCCATCTAAATACCCATGCTGCTTTTCTGAGTGTGATGGGGGTACCAGCTTGATCCACTGTTGCTCTTA  
GAAGGCCCAGAAAGTCTTTGGGCATTGCCAAGAAATCCCGGATTATGTGGAAAACCTCACTTTCTCTTACGGC  
TGTACCAGAAAATCCCTAAGACAGATCTTGCCGTGGACTAGCAATACCTGCAAGTGCTGCCAATGGGAACCTCAAT  
TTATTCCTGGGAACCTAACGAGGAGAGCCCAGGCCTAGGCAGGAGGCCTGGAACCTCTTGCTAAGGTGCTGTT  
CCTGTTCTGCAAGGTCTCCAGAACCCCTTTGGAAATGGTGAAGGAACAGCCCAATAGAAGTACAGAGCCAGCT  
GACAAGTCCTTGAAAGCTCACTCCTCAGTCCTTGGCACAGCCATGTTTTGTCTTCTCTCTTGGTATTTCTTCTC  
TCCCAACTTTAGCCATTTTGCTTGGAAATCATGATTACAATTTTTTCTTTGCAGATGCCTTCTTGGGGGATACT  
CCTCCCCACCCTAAAGGGTGCCTGCAACTTAGGCGGATTGGGTCTCTCTGCTGTGGCGTTCTCTCTTGAGAGAC  
CCTCTGAATTTTAGCACAAAGTGCCCTTCTGTTTACAGCTGCCACCACCTTTAGAGGAATTTTCGTGAGAAAAATG  
TGGAGGCTCCATATTAATGCATTATTTTTTAAAAAGTTTTGATAACTCTTAAAGCATCATTTGCACCTATGTGGG  
AACTTTGCCTGTTGCAAAGTATTGTGGCCGAGCTGCAGCTGGGAGCCTGCTTTCTGCCAGTCTTGAGGTTCTGAA  
GATCAGCTTTGAAAGGAAAGTATGTCTTAGCTTAGCCATTGAGAAGAGAAAAATGGAATATCAGAGTTACAGTTG  
TCAGTGAAACTACTTTGGATTTTAACCTCTTAGAGGAAGAAAAAGGTTAGGGAAGTGCAACTCTGGATGAAGG  
TGATGTGTTTGCCTCTCAGTCTTTCATTTCATAGCCTGCTAGTGAAAGGAAGTAAATGAGATTCTTTTGTGTGAC  
TTTGTAGTCTCTTTGTATTACCAAATAGTTGGGGTGTGACTCCTGTGTGTTTTGCAAGAATGTGTGGTAAGCCT  
GGGTAAAGAGAAGGAAGTGCCTGTTGGGAGAGTCTTTGTGTTGGGGAGTGGCAGGGGATGATTTGTTTCAGGGG  
AAAATGCCACATTTTAACTTTTAACTTCTGAATAAACTGTGTAAAAACAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 270**

MAMTGSTPCSSMSNHTKERVMTKVTLENFYSNLIAQHEEREMRQKKLEKVMEEEGLKDEEKRLRRSAHARKETE  
FLRLKRTRLGLEDFESLKVIGRGAFGEVRLVQKKDTGHVYAMKILRKADMLEKEQVGHIRAERDILVEADSLWVV  
KMFYSFQDKLNLYLIMEFLPGGDMMTLLMKKDTLTEEETQFYIAETVLAIDS IHQLGFIHRDIKPDNLLLD SKGH  
VKLSDFGLCTGLKKAHRTEFYRNLNHS LPSDFTFQNMNSKRKAETWKRNRRLAFSTVGTPDYIAPEVFMQTGYN  
KLCDWWSLGVIMYEMLIGYPPFCSETPQETYKKVMNWKETLTFFPEVP ISEKAKDLILRFCCEWEHRIGAPGVEE  
IKSNSFFEGVDWEHIRERPAAISIEIKSIDDTSNFDEFPESDILKPTVATSNHPETDYKNKDWF INYTYKRFEG  
LTARGAIPSYMKA AK



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**FIGURE 271A**

GGACTGTGTGTGTCTGGCTGTAGCAGACGCGAGGCGGCGACGAGGCGCCGGGGACCCGCGCGAGGGGCGGCCGGG  
AGGCGGCGGCGGCGGCCGAGAAAGTAGCAGCAGGACCGGCGGCGGCGACGGCAGCCCTGAAATGCATTTTCCTC  
TCCAGCGGCC**ATG**TTAACCAGGAAACCTTCGGCCGCCGCTCCCGCCGCTACCCGACCGGCCGAGGTGGGGACAG  
CGCCGTTTCGTAGCTTCAGGCTTCCCCGGGGCTCGGTGCAGGGCCACCCGGAGCGGAGTGGGGACTGGCCCCGC  
CTCCCCATCGCCCTGCCGCTCTCCGGGCCAGCAACGCTGCCGCCGACGCCACACGATTGGCGGCAGTAAGCA  
CACAATGAATGATCACCTGCATGTCGGCAGCCACGCTCACGGACAGATCCAGGTTCAACAGTTGTTTGAGGATAA  
CAGTAACAAGCGGACAGTGCTCACGACACAACCAATGGGCTTACAACAGTGGGCAAAACGGGCTTGCCAGTGGT  
GCCAGAGCGGCAGCTGGACAGCATTCATAGACGGCAGGGGAGCTCCACCTCTCTAAAGTCCATGGAAGGCATGGG  
GAAGGTGAAAGCCACCCCATGACACCTGAACAAGCAATGAAGCAATACATGCAAAAACACAGCCTTCGAACA  
CCATGAGATTTTCAGCTACCCCTGAAATATATTTCTTGGGTCTAAATGCTAAGAAGCGCCAGGGCATGACAGGTGG  
GCCCAACAATGGTGGCTATGATGATGACCAGGGATCATATGTGCAGGTGCCCCACGATCACGTGGCTTACAGGTA  
TGAGGTCTCAAGGTCAATTGGGAAGGGGAGCTTTGGGCAGGTGGTCAAGGCCTACGATCACAAAGTCCACCAGCA  
CGTGGCCCTAAAGATGGTGCGAATGAGAAGCGCTTCCACCGGCAAGCAGCGGAGGAGATCCGAATCCTGGAACA  
CCTGCGGAAGCAGGACAAGGATAACACAATGAATGTCATCCATATGCTGGAGAATTTACCTTCCGCAACCACAT  
CTGCATGACGTTTGAGCTGCTGAGCATGAACCTCTATGAGCTCATCAAGAAGAATAAATTCAGGGCTTCAGTCT  
GCCTTTGGTTCGCAAGTTTGCCACTCGATTCTGCAGTGCTTGGATGCTTTGCACAAAACAGAATAATTCAGT  
TGACCTTAAGCCCGAGAACATTTTGTTAAAGCAGCAGGGTAGAAGCGGTATTAAAGTAATTGATTTTGGCTCCAG  
TTGTTACGAGCATCAGCGTGTCTACACGTACATCCAGTCGCGTTTTTACCGGGCTCCAGAAGTGATCCTTGGGGC  
CAGGTATGGCATGCCATTGATATGTGGAGCCTGGGCTGCATTTTAGCAGAGCTCCTGACGGGTACCCCTCTT  
GCCTGGGAAGATGAAGGGGACCAGCTGGCCTGTATGATTGAACTGTTGGGCATGCCCTCACAGAACTGCTGGA  
TGCATCCAAACGAGCCAAAAATTTGTGAGCTCCAAGGGTTATCCCGTTACTGCACTGTCACGACTCTCTCAGA  
TGGCTCTGTGGTCTTAAACGGAGGCGCTTCCCGAGGGGAAACTGAGGGGCCACCGGAGAGCAGAGAGTGGGG  
GAACGCGCTGAAGGGGTGTGATGATCCCTTTTCCTTGACTTCTTAAACAGTGTTTAGAGTGGGATCCTGCAGT  
GCGCATGACCCAGGCCAGGCTTTGCGGCACCCCTGGCTGAGGAGGCGGTTGCCAAAGCCTCCACCGGGGAGAA  
AACGTCAGTGAAAGGATAACTGAGAGCACCGGTGCTATCACATCTATATCCAAGTTACCTCCACCTTCTAGCTC  
AGCTTCCAACTGAGGACTAATTTGGCGCAGATGACAGATGCCAATGGGAATATTCAGCAGAGGACAGTGTTGCC  
AAAACCTTGTTAGCT**AG**CTCACGTCCCCTGATGCTGGTAACCTGAAAGATACGACATTGCTGAGCCTTACTGGGT  
TGAAAGGAGTAGCTCAGACCTGTTTTTATTTGCTCAATAACTCTACTCATTTGTATCTTTTCAGCACTTAATTT  
TAATGTAAGAAAGTTGTTCAATTTGTTTTTATAAAATACATGAGGACAATGCTTTAAGTTTTTATACTTTTCAGAA  
ACTTTTTGTGTTCTAAAAGTACAATGAGCCTTACTGTATTTAGTGTGGCAGAATAATAACATCAGTGGCAGGCCA  
CTGATTACTTCATGACTGCCACGCATTTACAGATTGGTGTCAAAGACATTCATAATGTTTTATGGTTCATGTTA  
TATCCTCCCCAGGGTGACAGCCCTTAAGGCCCTCCTTTCCCTCCATGCTCCAGGTCCATGCACAGGTGTAGCA  
TGTCTGCTTCCGTTTTTCATAAATTAATCTGGGTGTTGGGGGTAGTGGGAGGAGAACGGTCAGAATCAAAGTGA  
CATTCTAAGAAAACTGTACCTTAGAGATTTTCTCTAGTGCTCAAACAAATACAAAATAAGATCCCCAAGGTTT  
AAACTGCCCAGTTAGCATTCTGACATTCTAAAAGCCGGCAAAGCAGCTTTTAGTGATAAATGGGAATGGAAACG  
TGTGTGTTCTCCAAATTTCTAGTATGATCGGTGAGCTGTTTTGTAAAGAAGCCTCATATTACAGAGTTGCTTT  
TGCACCTAAATTTAGAATTGTATTCCATGAACGTTCCTCCCTTTCTCTGCTTTCTCCTCTCTGTTCTCTTT  
TAATACCACACGTCTGTTGCTTGCATTTAGTTTGTCTTCTTCTTCAGCTGTGTATCCCAGACTGTTAATACAGA  
AAAGAGACATTTAGCTGTGATTATGACCATTGTTTCATATTCCAATTAAAAAAGAACAGCAGCCTAGCTACTT  
AAGGTGGGGATTTTCATAGTTCCAAAGAAGATTTAGCAGATTAGAGTGAGTTCACACTTTTCAGGTGCCACTGTAA  
GGTCTCTCAGCCTGGGAAACTATCAACTCTTCTTTAAAAAGAAAGAGGGTTGAAAATCCTCTGGACGAACAGA  
AGTCACTTTGGCTGTTTCAGTAAGGCCAATGTTAACAACACGTTTAGAGGAGGAAAAAGTTCAACCTCAAGTTAAAT  
GGTTTGACTTATTCTTCGTATCATTAGAAGAACCCAGAGATAGCATTCTCTATTTTATTTTACTTTCTTTTGG  
ATTGCACTGATTGTTTTTGTGGGAATGACACTTTATCTGGCAAAGTAACTGAGAGTTTGGTAAAAGAATATTTTC  
TTCTCTGAATAATAATTATTTTCACAGTGAAAATTTTCACTATTTTATCACTAATGTATGAGCAATGATCTATATC  
AATTTCAAGGCACGTGAAAAAATTTTTTAGTATGTGCAATTTAATATAGAAAGATTTCTGCCTGTTTGGACAAT  
AGGTTTTGGGTAGTACAGATTAGGATAAGTAAGCTTATATATGCACAGAGATTATTGTATTACCTGTAAATTGAT  
TTACAAGTACTTAAAGCGTGGTCCCCAGTGAGGCCAAGAAAGTTCCGGTTAAGTTCTTTAATAATAATCCTAC

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**FIGURE 271B**

AGTTTATCTTAAGAA

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**FIGURE 272**

MLTRKPSAAAPAYPTGRGGDSAVRQLQASPLGAGPTRSGVGTGPPSPIALPPLRASAAAAAHTIGGSKHTMN  
DHLHVGS SHAHQIQVQQLFEDNSNKRTVLTTQPNGLTTVGKTGLPVVPERQLDSIHRRQGSSTSLKSMEGMGKVK  
ATPMTPEQAMKQYMQKLTAFEHHEIFSYPEIYFLGLNAKKRQGMTGGPNNGGYDDDQGSYVQVPHDHVAYRYEVL  
KVIKGSGFGQVVKAYDHKVHQHVALKMRNEKRFHRQAAEEIRILEHLRKQDKDNTMNVIHMLENFTFRNHICMT  
FELLSMNLIELIKKNKFQGFSLPLVRKFAHSILQCLDALHKNRIHCDLKPENILLKQQGRSGIKVIDFGSSCYE  
HQRVYTYIQSRFYRAPEVILGARYGMPIDMWSLGCILAELLTGYP LLPGEDEGDQLACMIEL LGMP SQKLLDASK  
RAKNFVSSKGYPRYCTVTTLSDGSVVLNNGRSRRGKLRGPPESREWGNALKGCDPLFLDFLKQCLEWDP AVRMT  
PGQALRHPWLRRRLPKPPTGEKTSVKRITESTGAITSISKLPPPPSSASKLRTNLAQMTDANGNIQORTVLPKLV  
S

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**FIGURE 273A**

CAGCTGCCAGCCGAGGAGGCGCGCGGAGAGGGGACTGCGGTTCAGCTGCGTCCACTTGGGGCTGTGCGGCGGTCC  
CGCGCCCGGCGATGTTCCCGGGCACTCCCTGAGTAGCGGCAGCTTATCCCCCGCCGCTAGCCCGCCCTGGTCCC  
CGGCTCGCTCGCTGGCTGGCGCGGCCCGGCCCGCTCTGCGTCCGCCCCGCGCGGTGGAGGCGCGCAGAGGGG  
ACGCGGCCCGGGGATGAGCGGATTGCGGGTGAAGTTCGCGCGCCGGGGGCCCCGGAAGCCGTGAGCCGCTGCTTTT  
CTCCGAGTCGCGCCCTGCCCTTGGATTGAGATC**ATG**TCCATCCACATCGTGGCGCTGGGGAACGAGGGGGACA  
CATTCCACCAGGACAACCGGCCGTCGGGGCTTATCCGCACCTACCTGGGGAGAAGCCCTCTGGTCTCCGGGGACG  
AGAGCAGCTTGTGCTGAACGCGGCCAGCACGGTCGCGCGTCCGGTGTTCACCGAGTATCAGGCCAGTGCCTTG  
GGAATGTCAAGCTGGTGGTCCACGACTGTCCCGTCTGGGACATATTTGACAGTGATTGGTACACTTCTCGAAATC  
TAATTGGGGGCGCTGACATCATTGTGATCAAATACAACGTTAATGACAAGTTTTTCATTCCATGAAGTAAAGGATA  
ATTATATTCCAGTGATAAAAAGAGCATTAAATTCAGTTCCAGTAATTATTGCTGCTGTTGGTACCAGACAAAATG  
AAGAGTTACCTTGTACATGCCACTATGTACCTCAGACAGAGGGAGCTGTGTTAGTACAACCTGAAGGGATCCAAC  
TTGCAAAAGAACTAGGAGCAACCTATCTTGAAGTCCACAGCCTTGATGACTTCTACATAGGAAAGTATTTTGGAG  
GAGTGTGGAGTATTTTATGATTCAAGCCTTAAATCAGAAGACAAGTGAAAAAATGAAGAAAAGAAAAATGAGCA  
ACTCCTTTTCATGGAATTAGACCACCTCAACTTGAACAACCCAGAAAAAATGCCTGTCTTAAAGGCTGAAGCGTCAC  
ATTATAACTCTGACTTAAATAACTTGTCTGTTCTGCTGCCAGTGTGTGGACGTGGTATTTTATAACCCCGATTAA  
AGAAAGTTGTAGAGGCCCAAGATCGTTCTCTGCGCTGTAAGCCATGTTTTTCATGCTGCTTTTCAATGTGAAGA  
GTCCCACTGACATTCAGGATTCAGTATCATCCGAAGTACCCAGGATCTTTTTGCTATAAACAGAGATACTGCAT  
TTCCAGGTGCTAGCCATGAATCTTCAGGCAACCCACCATTACGAGTCATTGTTAAAGACGCCCTCTTCTGTTCTT  
GTTTATCAGACATCCTTCGCTTCATTTATTCAGGTGCTTTTCAGTGGGAAGAATTGGAAGAAGATATCAGGAAGA  
AGTTGAAAGATTCTGGGGATGTTTCAAATGTAATCGAGAAAGTTAAATGCATTTTAAAAACACCAGGAAAGATTA  
ATTGCCTAAGGAATTGCAAAACCTATCAAGCCAGAAAACCTTTGTGGTTTTATAAACTTCCCTCAAGTTTTTCC  
TTAATAAGCCGATGCTTGCCGATGTTGTCTTCGAAATTCAAGGTACGACAGTGCCAGCCACAGGGCCATCCTGG  
TGGCCCGTTGTGAAGTGATGGCAGCCATGTTTAAATGGTAATTACATGGAAGCAAAGAGTGTCTGATTCCCGTTT  
ATGGTGTTTTCCAAAGAGACTTTCTTGTCATTTTTTAGAATACCTGTACACAGACTCCTGCTGCCAGCTGGCATAT  
TCCAGGCCATGTGTCTCCTGATCTGTGCCGAGATGTACCAAGTGTCCAGACTGCAGCACATCTGTGAGCTGTTCA  
TCATTACCCAGCTGCAGAGCATGCCAAGCAGGGAAGTGGCATCCATGAACCTTGATATAGTTGACCTGCTTAAAA  
AGGCCAAGTTTACCACCTCTGATTGCCCTTTCAACCTGGCTACTTTCATTTTCATTGCTACTAACTACCTCATCTTCA  
GTCAAAAGCCTGAATTTTCAGGATCTTTTCAGTGAAGAACGCAGTTTTTGTGAAAAGCACAGATGGCCGTCGAATA  
TGTACTTGAAGCAGCTTGCGGAATACAGGAAGTATATTCACTCCCGGAAATGTCGTTGCTTAGTAATG**TAA**CCTG  
GAGCTTTTATACACTACATTTCTTTTTTATTATTATGAAGAATGGGATACCTCCAGGTTCCAGTAAATTTCTCT  
GACCGAAACCAATGTGGGTGTTAGAAAAATTACCATATAGCTTAATATGTTTATTAGTTCTCTTTGGAAAAAAC  
TACCACTGTGGTCTTAAAAGGGAACAAAATATACCATAGGCTAAACTAAGGCTTTCACTCTAGAATGCAAAGCT  
GTTTTGCAGCTGTTTTCCCTTAAAGATGTCCTGTTGCTTTAGTGATATTTAGACCCCTCTCAGTTAAGAAATGCT  
TAGATTAATAAAAAAAAAATTACGTAGGATTAATACAGAAATTTAATCATGTCTGATTAATTGCTCTATTAAATA  
AGGGGCATTTAAAGACCCAGCATAACCATTTGTATAATGAGAAATCTAGGGGAAAACCAATCAGTCCAACATGAG  
ATTTTAGGAATAGAAATTTGCCGGCCATTTGGAAGTGAAATGCCACTTAGTTCTCAATTGATGACAGTGTGTA  
ATCATCATAAAAAAAAAATACCTGCTTTTCATCTGGACAACCAATTGAGCCACTTTATCTCCTTTTGGCAATCTGA  
GTAGGCGGGGAACCTAGGCAGGGCTGGCTTTCTTAGCGTGTAACCTGTGTAGCAGCACAGGGCCACACTTAGAA  
GGACCCACACTTGGTTCAAGGCTCTGCTATAGCGGAAATCTTAATAATGTTTGAAGAAGGGCCCCATGATTTT  
ATTTTGTGCTGAGCCCTCAAAATTATGTCTGTTTCGTGGTGGGAAATATCCTATGTTTTCTTGCTCAAACACCTT  
TCTCTCTGAAAGCAGAAAAAGGCACTGATATAAAGGGAAGAGAAGGAGGCTCACCGGAGGGAAGAGAACATAGTG  
AAGATTTCCCGCTTTTGGGGAGGTCTGGACCACCCAGGGCCTCCACTGCCACCTTGGCTGGCAAGGGAGAAATGTG  
TTGTGTTGTCTTAGCTTTAAACAGTCACAGTTCTTGCTCTATCATAGATGAACAAATACTTTCTTGATCATTCT  
GTAAGACCAGGAGGTTGGTAAGAGTGACTAACAGCCTAACTTTAATACACATGTATAAAGATGTTACAGAGAA  
AGATGCTCTGTAGAGAATTTGCTACCGAAGTTGGCTCAAGAATTTGTTTTTAGTGTTATTTACCAAGATTAGGAC  
GTCAGTGGCTTAAATCTTTGAATCTTTTCAAGGACTGCAAGATTATTTGATAAAGAGTAGCATGAATCTTGTC  
CTCTAATATTACACAGTAAGTTCAAAGAAAGGATGTAAGTCAAAGACTTGTTACATAGAGGGAAATGGACTGGG  
ATAGAGGACAGACTGATAGTTTCTTTCTTTTCATATCATATGATAGAGAAATAATTATATCAGAACTCACAAC

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**FIGURE 273B**

CTAGACATGGAAAAACAGATTACTGTCTATTGTCAGCATCATTTTCATCTGTAAGTCACTACTGGAATATATTTT  
TCTTTTAATTTCCAGTGACTTTAGAATACACACAGTTTTTCCGACTTTTCAAAAATTTGATTAAATGGTTTTATA  
GTATAATATTGGGACCCCATACCGTTAGCCCTTGTATGTATACCAACACTGCCAAAGTAAAACATTAGGTCAGGC  
ATGGTGGCTCAGGCCTGTAATCCCAGCATTTTGGGAGGCTGAGGCAAGTGGATAACTTGAGGTCATGAGTTCGAA  
ACCAGCCTGGCCAAAACAGTGAAACCCCGTCTCTACTAAAAATACAAAATTAGCCAGATGTGGTGGCGCACACCT  
GTAATCCCAGCTACTCAGGAAGCTGAGGCAGGAAAATCGCTTGAACCTGGGAGGTGGAAGTTGCAGTGAGCCGAG  
ATCGCACCACTGCACTCCAGCCTGGGTGACAAGAGCGAAACTCCATCTC

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**FIGURE 274**

MSIHIVALGNEGDTFHQDNRPGLIRTYLGRSPLVSGDESSLLNAASTVARPVFTEYQASAFGNVKLVVHDCPV  
WDIFDSWYTSRNLIGGADIIVIKYVNDKFSFHEVKDNYIPVIKRALNSVPVIAAVGTRQNEELPCTCPLCTS  
DRGSCVSTTEGIQLAKELGATYLELHSLDDFYIGKYFGGVLEYFMIQALNQKTSEKMKKRKMSNSFHGIRPPQLE  
QPEKMPVLKAEASHYNSDLNNLLFCCQCVDVVFYNPDLLKKVVEAHKIVLCAVSHVFMLLFNVKSPTDIQDSSIIR  
TTQDLFAINRDTAFPGASHESGNPPLRVIVKDALFCSCSLSDILRFIYSGAFQWEELEEDIRKKLKDSGDVSNVI  
EKVKCILKTPGKINCLRNCKTYQARKPLWFYNTSLKFFLNKPMPLADVFEIQGTTVPAHRAILVARCEVMAAMFN  
GNYMEAKSVLIPVYGVSKETFLSFLEYLYTDSCCPAGIFQAMCLLICAEMYQVSRLQHICELFIITQLQSMPRE  
LASMNLDIVDLLKKAKFHHSCLSTWLLHFIATNYLIFSQKPEFQDLSVEERSFVEKHRWPSNMYLKQLAEYRKY  
IHSRKCRCLVM

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**FIGURE 275A**

CAGCTGCCAGCCGAGGAGGCGCGGCGGAGAGGGGACTGCGGTGAGCTGCGTCCACTTGGGGCTGTGCGGCGGTCC  
CGCGCCCGGCGATGTTCCCGGGCACTCCCTGAGTAGCGGCAGCTTATCCCCGCCCCGCTAGCCCCGCTTGGTCCC  
CGGCTCGTCTGCTGGCTGGCGCGGCCCCGCCCCGCTCTGCGTCGGCCCCGCGCGGTGGAGGCGCGCGAGGGGG  
ACGCGGCCCGGGGATGAGCGGATTGCGGGTGAACTCGCCGCCCGGGGGCCCCGCGAAGCCGTGAGCCGCTGCTTTT  
CTCCGAGTCGCCGCCCTGCCCTTGGATTTGAGAT**CATGT**CCATCCACATCGTGGCGCTGGGGAACGAGGGGGACA  
CATTCCACCAGGACAACCGGCCGTCGGGGCTTATCCGCACTTACCTGGGGAGAAGCCCTCTGGTCTCCGGGGACG  
AGAGCAGCTTGTGCTGAACGCGGCCAGCACGGTCGCGCGTCCGGTGTTACCGAGTATCAGGCCAGTGCGTTTG  
GGAATGTCAAGCTGGTGGTCCACGACTGTCCCGTCTGGGACATATTTGACAGTGATTGGTACACTTCTCGAAATC  
TAATTGGGGGCGCTGACATCATTGTGATCAAATACAACGTTAATGACAAGTTTTTCATTCCATGAAGTAAAGGATA  
ATTATATTCCAGTGATAAAAAGAGCATTAAATTCAGTTCCAGTAATTATTGCTGCTGTTGGTACCAGACAAAATG  
AAGAGTTACCTTGTACATGCCACTATGTACCTCAGACAGAGGGAGCTGTGTTAGTACAACCTGAAGGGATCCAAC  
TTGCAAAAGAACTAGGAGCAACCTATCTTGAACCTCACAGCCTTGATGACTTCTACATAGGAAAGTATTTTGGAG  
GAGTGTGGAGTATTTTATGATTCAAGCCTTAAATCAGAAGACAAGTGAAGAAATGAAGAAAAGAAAATGAGCA  
ACTCCTTTCATGGAATTAGACCACCTCAACTTGAACAACCAGAAAAAATGCCTGTCTTAAAGGCTGAAGCGTCAC  
ATTATACTCTGACTTAAATAACTTGCTGTTCTGCTGCCAGTGTTGGACGTGGTATTTTATAACCCCGATTAA  
AGAAAGTTGTAGAGGCCCAAGATCGTTCTCTGCGCTGTAAGCCATGTTTTCATGCTGCTTTTCAATGTGAAGA  
GTCCCACTGACATTCAGGATTCAGTATCATCCGAACCTACCCAGGATCTTTTTGCTATAAACAGAGATACTGCAT  
TTCCAGGTGCTAGCCATGAATCTTCAGGCAACCCACCATTACGAGTCATTGTTAAAGACGCCCTCTTCTGTTCTT  
GTTTATCAGACATCCTTCGCTTCATTTATTAGGTGCTTTTTCAGTGGGAAGAATTGGAAGAAGATATCAGGAAGA  
AGTTGAAAGATTCTGGGGATGTTTCAAATGTAATCGAGAAAAGTTAAATGCATTTTAAAAACACCAGGAAAGATTA  
ATTGCCTAAGGAATTGCAAAACCTATCAAGCCAGAAAAACCTTTGTGGTTTTATAACACTTCCCTCAAGTTTTTCC  
TTAATAAGCCGATGCTTGCCGATGTTGTCTTCGAAATTCAAGGTACGACAGTGCCAGCCCACAGGGCCATCCTGG  
TGGCCCGTTGTGAAGTGATGGCAGCCATGTTAATGGTAATTACATGGAAGCAAAGAGTGTCTGATTCCCGTTT  
ATGGTGTTTCCAAAGAGACTTTCTTGTCATTTTTAGAATACCTGTACACAGACTCCTGCTGCCAGCTGGCATAT  
TCCAGGCCATGTGTCTCCTGATCTGTGCCGAGATGTACCAAGTGTCAGACTGCAGCACATCTGTGAGCTGTTCA  
TCATTACCCAGCTGCAGAGCATGCCAAGCAGGGAACCTGGCATCCATGAACCTTGATATAGTTGACCTGCTTAAAA  
AGGCCAAGTTTACCACCTCTGATTGCCTTTCAACCTGGCTACTTCATTTATTGCTACTAACTACCTCATCTTCA  
GTCAAAAGCCTGAATTTCAGGATCTTTAGTGAAGAACGCAGTTTTGTTGAAAAGCACAGATGGCCGTCGAATA  
TGTAAGTGAAGCAGCTTGCGGAATACAGGAAGTATATTCACTCCCGGAAATGTCGTTGCTTAGTAATG**TAA**CTG  
GAGCTTTTATACACTACATTTCTTTTTATTATTATGAAGAATGGGATACCTCCAGGTTCCAGTAAAATTCTTCT  
GACCGAAACCAATGTGGGTGTTAGAAAAATTACCATATAGCTTAATATGTTTATTAGTTCTCTTTGGAAAAAAAC  
TACCACTGTGGTCTTAAAGGGGAACAAAATATACCATAGGCTAAACCTAAGGCTTTCACCTCTAGAATGCAAGCT  
GTTTTGCAGCTGTTTTCCCTTAAAGATGTCTGTGCTTTAGTGATATTTAGACCCCTCTCAGTTAAGAAATGCT  
TAGATTAATAAAAAAAAAAATTACGTAGGATTAATACAGAAATTAATCATGTCTGATTAATTGCTCTATTAAAAA  
AGGGGCATTTAAAGACCCAGCATAACCATTTGTATAATGAGAAATCTAGGGGAAAACCAATCAGTCCAACATGAG  
ATTTTAGGAATAGAAATTTGCCGGCCATTTGGAAAGTGAAATGCCACTTAGTTCTCAATTGATGACAGTGTTTGA  
ATCATCATAAAAAAAATACCTGCTTTTTCATCTGGACAACCCAAATTGAGCCACTTTATCTCCTTTTGGCAATCTGA  
GTAGGCGGGGAACCTAGGCAGGGCTGGCTTTCTTAGCGTGTAACCTTGTTGTAGCAGCACAGGGCCACACTTAGAA  
GGACCCACACTTGGTTCAAGGCTCTGCTATAGCGGAAATCTTAATAATGTTTGAAGAAGGGCCCCATGATTTT  
ATTTTGTGCTGAGCCCTCAAATATATGCTGTTTTCGTGGTGGGAAATATCCTATGTTTTCTTGCTCAAACACCTT  
TCTCTCTGAAAGCAGAAAAAGGCACTGATATAAAGGGAAGAGAAGGAGGCTCACCGGAGGGAAGAGAACATAGTG  
AAGATTTCCCGCTTTGGGGAGGTCTGGACCACCCAGGGCCTCCACTGCCACCTTGGCTGGCAAGGGAGAAATGTG  
TTGTGTTGCTTAGCTTTAAACAGTCACAGTCTTGTCTATCATAGATGAACAAATACTTTCTTGATCATTCT  
GTAAGACCAGGAGGTTGGTAAGAGTGACTAACAGCCTAACTTTAATACACATGTATAAAGATGTTTACAGAGAA  
AGATGCTCTGTAGAGAATTTGCTACCGAAGTTGGCTCAAGAATTTGTTTTTAGTGTTATTTACCAAGATTAGGAC  
GTCAGTGGCTTAAATCTTTGAATCTTTTCAAGGACTGCAAGATTATTTGATAAAGAGTAGCATGAATCTTGTTG  
CTCTAATATTACACAGTAAGTTCAAAGAAAGGATGTAAGTCAAAGACTTGTTACATAGAGGGAAAATGGACTGGG  
ATAGAGGACAGACTGATAGTTTCTTTCTTTTCATATCACATGTATAGAGAAATAATTATATCAGAAACTCACAAAC

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**FIGURE 275B**

CTAGACATGGAAAAACAGATTACTGTCTATTGTCAGCATCATTTTCATCTGTAAGTCACTACTGGAATATATTTT  
TCTTTTAATTTCCAGTGACTTTAGAATACACACAGTTTTTCCGACTTTTCAAAAATTTGATTAAATGGTTTTATA  
GTATAATATTGGGACCCCATACCGTTAGCCCTTGTATGTATACCAACACTGCCAAAGTAAAACATTAGGTCAGGC  
ATGGTGGCTCAGGCCTGTAATCCCAGCATTTTGGGAGGCTGAGGCAAGTGGATAACTTGAGGTCATGAGTTCGAA  
ACCAGCCTGGCCAAAACAGTGAAACCCCGTCTCTACTAAAAATACAAAATTAGCCAGATGTGGTGGCGCACACCT  
GTAATCCCAGCTACTCAGGAAGCTGAGGCAGGAAAATCGCTTGAACCTGGGAGGTGGAAGTTGCAGTGAGCCGAG  
ATCGCACCCTGCACTCCAGCCTGGGTGACAAGAGCGAAACTCCATCTC



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**FIGURE 276**

MSIHIVALGNEGDTFHQDNRP SGLIRTYLGRSPLVSGDESSLLLNAASTVARPVFTEYQASAFGNVCLVVHDCPV  
WDIFDSWYTSRNLIGGADIIVIKY NVNDKFSFHEVKDNYIPVIKRALNSVPVIAAVGTRQNEELPCTCPLCTS  
DRGSCVSTTEGIQLAKELGATYLELHSLDDFYIGKYFGGVLEYFMIQALNQKTSEKMKKRKMSNSFHGIRPPQLE  
QPEKMPVLKAEASHYNSDLNNLLFCCQCVDVVFYNPDLKKVVEAHKIVLCAVSHVFMLLFNVKSPTDIQDSSIIR  
TTQDLFAINRD TAFFGASHESGNPPLRVIVKDALFCSCLS DILRFIYSGAFQWEELEEDIRKKLKDSGDVSNVI  
EKVKCILKTPGKINCLRNCKTYQARKPLWFYNTSLKFFLNKPM LADVVF EIQGTTVPAHRAILVARCEVMAAMFN  
GNYMEAKSVLIPVYGVSKETFLSFLEYLYTDSCCPAGIFQAMCLLICAEMYQVSRLQHICELFIITQLQSMPSRE  
LASMNLDIVDLLKKAKFHHS DCLSTWLLHF IATNYLIFSQKPEFQDLSVEERSFVEKHRWPSNMYLKQLAEYRKY  
IHSRKCRCLVM

**FIGURE 277**

GCGGCCCGCTGGCCAGGCAACCTATGGGTACCACCGGGTTCTCGCGGGTCTTGCGAACGAACTTTTCCTTGAAA  
CTCTCTGGATTCCCTGTAAACAGTGGGGCTCAGCCCCTCAATGACTGGAGGCTTCGATGGTTCAAAGGGGACCTCC  
GGAATCACAGGGCCGGGAGTCGCCATGTCCGGGCCACAGCAGCAGGAGAAAAATCGGGACTCCGACCTCAGCCTCC  
CGGTGAAGGTCATGAAAGGGGCGGGGAAACGAATAAATTGAGCCTTGTACGCAGGCGCAAATGCTCGTTGCATCC  
TGGGAGTCGTAGTGCTCAGCACGGTAGTGCTACAAAAGGACTACATTTCCCCAAATGCCCGCAAAGCCTTGTCGA  
CGCCTTCCGGAAGGAGTTTGTACACGAGGTCTGAGAGACAGAGGCAGCGTGTGAGCTGCTGGTGCGGTGGTC  
AGCGCG**ATG**CCCAAGGCCAAGGGCAAACCCGGAGGCAGAAGTTTGGTTACAGTGTCAACCGAAAGCGTCTGAAC  
CGGAATGCTCGACGGAAGGCAGCGCGCGGAATCGAATGCTCCACATCCGACATGCCTGGGACCACGCTAAATCG  
GTACGGCAGAACCTGGCCGAGATGGGGTTGGCTGTGGACCCCAACAGGGCGGTGCCCCTCCGTAAGAGAAAGGTG  
AAGGCCATGGAGGTGGACATAGAGGAGAGGCCTAAAGAGCTTGTACGGAAGCCCTATGTGCTGAATGACCTGGAG  
GCAGAAGCCAGCCTTCCAGAAAAGAAAGGAAATACTCTGTCTCGGGACCTCATTGACTATGTACGCTACATGGTA  
GAGAACCACGGGGAGGACTATAAGGCCATGGCCCGTGATGAGAAGAATTACTATCAAGATACCCCAAAACAGATT  
CGGAGTAAGATCAACGTCTATAAACGCTTTTACCCAGCAGAGTGGCAAGACTTCCTCGATTCTTTGCAGAAGAGG  
AAGATGGAGGTGGAG**TAA**CTGGTTTACATCACAGCTGCCCCAGGCTGAGGCGTCCCCCGGACCAGTGAAGCTGGA  
GCCAGGGTGTAAGGCAAGGAGGTGCTGTGTGGCTCCAGAGGGGCTGGCCAGGTCCCATGGAATCAGAAGGTTACA  
CACACACGTGCACACTCCCCGCTCTGGGGAAGGAACTGTTCTCAGAGGCTCCAATTTATATTCTGTTGGGGGTTT  
ACGGAAGCCAGAACCTGCTGTTTTCAGGGTGGGTGATGTAAATATAGTGTGTACATAATAAGCAAATATATT  
TTAAA

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**FIGURE 278**

MPKAKGKTRRQKFGYSVNRKRLNRNARRKAARGIECSHIRHAWDHAKSVRQNLAEMLAVDPNRVPLRKRKVKA  
MEVDIEERPKELVKPYVLNDLEAEASLPEKKGNTLSRDLIDYVRYMVENHGEDYKAMARDEKNYYQDTPKQIRS  
KINVYKRFYPAEWQDFLDSLQKRKMEVE

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**FIGURE 279A**

CGTCCACCGTGGAGTCTCTCCTTGCTTTGGGTCCACTGAGCCCCACACATTGTTGAGTGTCTGATTGTCTCCTTG  
 CCCTTACAGGACAGGAAAAGCGAAATCTCTGTTTCCTTTGTAGGGACCTTTCTTTTGTAGGTGAAAGGGACAGAAAT  
 ATGATTCTGGCCTCCTTGATGGTGAATACAGGAACACTTTTCAGATAAAATTACAATAGAGAGGAGTCAGCTTATTT  
 AAACAAACTGAGGTTAAGCCAGAGATTGCAGTTAACAGTGAAAAAATTTAAAGCAAGTACCTGGATGGATGCAAA  
 GCAGTGCCAGGAGACCCAACTTACGTGACAGAGATGATCATTGTCACTCATTATTATGTTTTGAGCACCAGCC  
 ATGTGCCAGGTCCAGAACTAGAAGAACTTGGGTGTAGGTGAGATCATAGGAACAGTCCCTGCCCCAGCTGAACA  
 TCAGGAAGCCAGACTGGGAGCACATGCCGTGGCTGACTAGGACTCCAGCAGGGACCTGGGGTTCCATCAGATCAG  
 TGTAAAGCGATGGTTTCCCAAATGAGACCTCTCCAGAGATGGTTTATTCCACCCCGCAATGGCCACCAGAAACAT  
 TGTGCTGACCAGAGGGCTTCACTGCCCCAAACCCCAAAATCACACTCCAGGATGAGAAACCTAAAAGTCTATCTT  
 GATGAGGCTTCATAGCTGGAAACCACCCCTCATGGATCCACAGGCTGCATTGATGAAAGGAGACTCCAGGAAGT  
 CGAGCCATTCCAGGCAGACATGTAGCAAAAGCCCGAGCTGGGGTCCGCCCTCATGCAATAAATAACACCTGTGCA  
 CATAAGAGAGGTGACAGGCAGGGCATCCCTGGGGACCTGGGGCTGTGGCACGTGAAGAAACACCCAAGAGAGCAC  
 GAAGTCCCAATGCCATGACCAGATATTTCCGGTGCCAGGCATGCTTCTGGGTCCCAGCAAAAGACACACAAATCCG  
 TGTCTTGGGGACCCACAGTCTAGTGACCTAGGGCTGGCCGGGTGCGCACGCTTCTTTTCAAGGGCTCGAAAGCCT  
 CTGCATGGATGCAACTTTGGGGGAAAAGTAACCCCTAACCCCTCTGCTTCTCTATCCTCCCTCTTCTGTGTATAT  
 GTCTGTCTCTTTCTCTCTGTGTGTGCCCTTCCCCACTCCCATCCCCATTCTTTTTTTATTTATTATATTTTGGT  
 GGTGTGTGGCTCGGTTTCTGTTGGTCCCTCGTGTGGCCCCCTCCCTGCTGCAGAACTCGTCCAGCTCGGCCTCC  
 TCCGAAGCCTCGGAAACCTGCCAGTCAGTGAGCGAGTGCAGCTCCCCACCTCTGTCTAGCTCGGGCTCCACCATG  
 GGTGCTGGGTGTCCACAGAGAAGGTGACCGCCCGGTGGCAGCCACAGCGGCCCCACTCTCCCTGGTCCCCCTG  
 CCTGCTGCTCAGACAGCCCTCACAGCCGCGGCAACCTGGAAGCTCAGAATCGACACCAAGAGTGGGGCTCCTCTT  
 GGGGACAGAGGGTGGGACAAGGCTGAGAGCATTTTCTAGAATGAGTGCCTGGCTGCTGGACAATGACCACATGGT  
 TGTCTCAAGGGAGAGGAAGGGTATGGGGAATTTGGAGGTGTGAAGGCTTTCTCCCAGACCAGGTGTTGCGTGCC  
 TGTCCATCCTCCTCCCTCCCTTCCCAGCCACCCACCAGACCGTTGGATGAGCCATGTCACTGTGTGACAGGCTG  
 TGTGCTTTTCCGCTTTTTTAGTTTGCACCCCCACCCCTGCCCCTGATTGAGAATGTGCTCCTGAGCAATGCGAC  
 GATTTTGGAAACCTAGAATGAACAGATTATTTGAAGATGCTTTGGAATTTTTAAATTTGCATAATGAAATGAGC  
 AAATCACTATCACCATTAAATGAGGCTTCATTAGTTACATTATCAAAAACCATTGACAAGGCCACAAATTGAGGG  
 CACTGATCAATTTCCAACTTCTAAAACGTAGGTCAAACATAGATGCTTATTTGCTGTCAAACCTCATGTGCATTC  
 TTTGCACCCCCGCTCTTTTCTCTTGATCACAGATCATCCGTGAGCAGCAGAGCCCCAATGTTTGTTTTATTTAT  
 AAATATTACAGTTTCCCTCCCTTGAATGTCAATGCCATTTTGTATCTCCGCACTCATCTGTTATATTAATTTT  
 TTTTCTTTTCCCCCCCCCTTTTTTGTGTTTCCAGTTGTCTAACGGGTTTTTCTCACTATAGTTTATCAAGTGAG  
 TCCCACGTGGGGCCCACGGGTGCAGGCCTTTTCCCTCATTGCCTGCCTGCCCTCCCGCTGCTCCCTCGGGTCACC  
 TCTGTCCACCTTCCAGACTACGCTCATTATTACACCATTTGGGCCCCGGCATGTTCCCGTCATCTCAGATCCCTAGC  
 TGGAAGGACTGGGCTAAGCCTGGGCCCTATGACCAGCCTCTGGTGAACACCCCTGCAGCGCCGCAAGAGAAGCGA  
 GAACCGGACCCCAACGGGGGAGGACCCACTACCGCCAGCGGCCACCTGCAGCAGCTGAGGAGGCTCAGAGACCA  
 CGGAGCATGACTGTATCGGCTGCCACCAGGCCTGGTGAGGAGATGGAGGCTTGTGAGGAGCTGGCCCTGGCCCTG  
 TCTCGGGGCTGCAGCTGGACACCCAGAGGAGCAGCGGGACTCGCTTCAGTGCTCCAGCGGCTACAGCACCCAG  
 ACAACCACCCCTGCTGCTCTGAGGACACCATCCCTTCCCAAGTTTCAGATTATGATTATTTCTCTGTAAGTGGT  
 GACCAGGAGGCAGATCAGCAGGAGTTCGACAAGTCTCCACCATTTCCAAGAAACAGCGACATCAGCCAGTCCCTAC  
 CGACGGATGTTCCAAGCCAAGCGTCCAGCCTCAACTGCTGGCCTCCCCACCACCTGGGACCTGCTATGGTCACT  
 CCAGGGGTGCAACTATCCGACGGACCCCTTCCACCAAGCCTTCTGTCCGCCGGGGAACCATTTGGAGCTGGTCCC  
 ATCCCCATCAAGACACCCGTGATCCCTGTCAAGACCCCAACCGTCCCAGACCTCCCAGGGGTGTTGCCAGCCCCCT  
 CCAGATGGGCCAGAAGAGCGGGGGGAGCACAGCCCTGAGTCGCCATCTGTGGGTGAGGGCCCCCAAGGTGTCACC  
 AGCATGCCCTCCTCAATGTGGAGCGGCCAAGCTTCCGTTAACCTCCACTTCCAGGCCCCAAGCCCAGTATCCCT  
 GAGGAGCACAGACAGGCAATTCCAGAAAGTGAAGCTGAAGACCAGGAACGGGAACCCCCAAGTGCCACTGTCTCC  
 CCAGGCCAGATTCCAGAGAGTGACCCTGCAGACCTGAGCCCCAAGGGATACTCCACAAGGAGAAGACATGCTGAAC  
 GCCATCCGAAGGGGCGTGAAACTGAAGAAGACCACGACAAACGATCGCTCAGCCCCCTCGCTTTTCTT**TAGG**TTAC  
 AAGAAATGCGCCGGTGGGGAATGAAGTGTTCATTATAAATAAACCTAATTTGTCTTGATCCATTCCACTCTATAAT  
 AAAACAAAAGATTTTGTAGGCAACTCGGAATATAGCTCTTTTGAAAGTACTCGACACCTTTAGATAAGAATTA

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**FIGURE 279B**

ACCAACCTATGTAAGTACATAATCTTGATCTTTTAAATTTGTAATATTGACAATTTTCTTTCTGCACATTTTAA  
TCTTAGTTTCCCTTTTGATTTTCTGAAGGTGCCAAATTCATTTAACTTTTTTACAAGTCTTTGTAAAATTTTA  
AATGCATAAAGGGGGTTGGGGCAGGGGAACACGAAGTAGTTAATTTTAGAAAAGGATTTACTATACTTCACTCT  
TCTTTTTTTTTCCCAAGCTTTTGTAGATGCATTGTAGTAGTCTAGCTTAGAAGCAAATGCAAGTTATTTTAA  
TGTACAACTAAATGGGTAAGAGGTAAAATCTTCATTTAAATATACTATGTTCTGGATGAAAAGAGCAGGAGTAA  
CAATTGATGAGCAATATTCAGAGTGAAGTAAATCTGGAATGGTAGACTGTGTTGGGATTGGGGGGAGGGCCATG  
GGAGGGGTACATCGTCAACATAGCCGATCCTGTTACATTTAAGAGTAGCCTCGTAGGTTGAATTTCTTCTGGTAG  
CTTCATGGTAAATGCATCCGAATAAGCCATACTGGATTGCAGTGTGTTTCTGTAGGGTGTGTTAAGGACTTGAC  
TTCCTTTCTCCCATGATTCTCTGGACTGCACACAGCACCCACAACCAGCCCCATGCATGCTGCTGCCTCTGGGC  
AGTCGTAGAATCTCCCACTTCAGTTTCTCGTTGATTGTACTCACCTTTATGGAATCCAAATACATCCAAAAGGGT  
AAGGCAGTTTTAAAAATGTGAAAACATTTAAAAATGATAATAGCAGGGAATTCCTAGATTATAGTAAATGCCTTT  
TACTTAACTGTGCCAGCAGGCTGGGTGCGTTAAAAAGCCCCAAGTATTTTGAAAAAAGTTCGAACAGATTTGACAA  
GGGTAGCCAGCTTGGAGTCTAGCAACTTGCCAATGTGTTTACCAATCTGGGGGCTTGTTTTTCTTTTCTTCTTTC  
AAATAAATGGCAGTTAACTGGCTTTACAGTAAACATTGAAGAGAGGAGGATTTGTTTATTGTCACTGGGAATCTG  
ACCACTATACTGTCCTTTTTTTGTATTCTGGGTAATGTTTTTTGGAAAAGATTTGTCTTTTCTAAGTGGAAGTTA  
AATTTGTTATACTGCCATCCCTAAAGCCAACAGAGATTTGTAGATTTAAAGGGATCACATTTGAAGACAATAG  
TGTTTAAGAAAGCAAGCAAGTCCCTTAGCAGTCAGGTCATAACAGGGCACATTTCTGACCGAACCTCTCAAGGC  
AGAGGAGGAGTTTGGTGGGTTTCATACACCCTGCAGATTCCTGTTGGCTCTAACCTCAATTACCTAATCTTATG  
CTTTAACACATAACTGCATTGGATGTGAGAGTAACGTACCGTATGGTCATTGTTCTATATATTAACATTGAACAC  
TGCTGCGATTGCTCAAGGACATTTTATGTTACGGCTTTAAAGCAAAGGCATGATTATTAGAAACTATTTAAGCTT  
TTTTCTTTGAAAAACAAGCTTCTTTTACAGAATATAAAACAACAGTAGTGCCTGTGGTTTAGCCCACCAATCTTGA  
TGACTAAAAGTAGCTGATGCATTGTGCATATGATGCTTGAGATGGTTTTTGCAAAGCAGAAATCGCTGCAAGGT  
AATCACAATAGATAAAAGTGGTATTTTAAACCTTTGAAATAAATGGATGTAAGTGTACCTTGGTACAGCTTTTCA  
CTTGTTTAGTTTTTAAACGTTAGTATAATCTGAATAAAATAAATGTTGCCAAATTCAATGTAGAAAGAATGTGAC  
AACACACCTTGGGTAGTTCTGCTTGTGTTTTTGCATATTGTAAAAGCAGTGTACAGCTAAAAAGAAAGAAATCG  
TTTCTAACAGTAAATTATTGTGCTTTAGTTGCTAGTTTGTACTGAGAGTTGACCTCTCCCTGTGCAGTTTTTTGT  
TCTAAACTTGTATAAATAACAATTGTGTAATGTGTCTCCCTCCTACATTGTAACAATTGCTTCAGCCTACGTTAT  
AAATAAAGAACCCTAGATT

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**FIGURE 280**

MFPSSQIPSWKDWAKPGPYDQPLVNTLQRRKEKREPDNPGGPTTASGPPAAAEAAQRPRSM TVSAATRPGEEME  
ACEELALALSRGLQLDTQRSSRDSLQCSSGYSTQTTTPCCSEDTIPSQVSDYDYFSVSGDQEQEFDKSSTIP  
RNSDISQSYRRMFQAKRPASTAGLPTTLGPAMVTPGVATIRRT PSTKPSVRRGTIGAGPIPIKTPVIPVKTP TVP  
DLPGVLPAPPDGPEERGEHSPESPSVGE GPQGVTSMPSSMWSGQASVNPPLPGPKPSIPEEHRQAIP ESEAEDQE  
REPPSATVSPGQIPESDPADLSPRDT PQGEDMLNAIRRGVKLKKTTTNDRSAPRF S

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**FIGURE 281**

CGTCCTTCCTCAGCCGCGGGTGATCGTAGCTCGGAAATGGCGGGATTGGTGCTATGGAGAAATTTTGGTAGAA  
TATAAGAGTGCAGTGGAGAAGAACTGGCAGAGTACAAATGTAACACCAACACAGCAATTGAACTAAAATTAGTT  
CGTTTTCTGAAGATCTTGAAAATGACATTAGAACTTTCTTTCTGAGTATACCCATCAACTCTTTGGGGATGAT  
GAAACTGCTTTTGGTTACAAGGGTCTAAAGATCCTGTTATACTATATTGCTGGTAGCCTGTCAACAATGTTCCGT  
GTTGAATATGCATCTAAAGTTGATGAGAAGTTGACTGTGTAGAGGCAGATGATGTTGAGGGCAAAATTAGACAA  
ATCATTCCACCTGGATTTTGCAAAACACGAATGATTTCCCTTTCTTTACTGGAAAAGGAAGTTGATTTCAAGCCA  
TTCGGAACCTTACTTCATACCTACTCAGTTCTCAGTCCAACAGGAGGAGAAAACTTTACCTTTCAGATATATAAG  
GCTGACATGACATGTAGAGGCTTTCGAGAATATCATGAAAGGCTTCAGACCTTTTTGATGTGGTTTATTGAACT  
GCTAGCTTTATTGACGTGGATGATGAAAGATGGCACTACTTTCTAGTATTTGAGAAGTATAATAAGGATGGAGCT  
ACGCTCTTTGCGACCGTAGGCTACATGACAGTCTATAATTACTATGTGTACCCAGACAAAACCCGGCCACGTGTA  
AGTCAGATGCTGATTTTGACTCCATTTCAAGGTCAAGGCCATGGTGCTCAACTTCTTGAAACAGTTCATAGATAC  
TACACTGAATTTCTTACAGTTCTTGATATTACAGCGGAAGATCCATCCAAAAGCTATGTGAAATTACGAGACTTT  
GTGCTTGTGAAGCTTTGTCAAGATTTGCCCTGTTTTTCCCGGGAAAAATTAATGCAAGGATTCAATGAAGATATG  
GCGATAGAGGCACAACAGAAGTTCAAATAAATAAGCAACACGCTAGAAGGGTTTATGAAATTCTTCGACTACTG  
GTAAGTACATGAGTGATGCCGAACAATACAGAAGCTACAGACTGGATATTAAAAGAAGACTAATTAGCCCATAT  
AAGAAAAAGCAGAGAGATCTTGCTAAGATGAGAAAATGTCTCAGACCAGAAGAACTGACAAACCAGATGAACCAA  
ATAGAAATAAGCATGCAACATGAACAGCTGGAAGAGAGTTTTTCAGGAAGTGTGGAAGATTACCGGCGTGTTATT  
GAACGACTTGCTCAAGAGTAAAGATTATACTGCTCTGTACAGGAAGCTTGCAAATTTTCTGTACAATGTGCTGTG  
AAAAATCTGATGACTTTAATTTTAAATCTTGAGACATTTTGCTTATACTAAAAGTTATCTATCTTTAGTTGAAT  
ATTTTCTTTTGGAGAGATTGTATATTTTAAATACTGTTTAGAGTTTATGAGCATATATTGCATTTAAAGAAAGA  
TAAAGCTTCTGAAATACTACTGCAATTGCTTCCCTTCTTAAACAGTATAATAAATGCTTAGTTGTGAT

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**FIGURE 282**

MAGFGAMEKFLVEYKSAVEKKLAEYKCNNTNTAIELKLVRFPEDLENDIRTFFPEYTHQLFGDDETAFGYKGLKIL  
LYYIAGSLSTMFRVEYASKVDENFDCVEADDVEGKIRQIIPPGFCTNTNDFLSLLEKEVDFKPFGTLLHTYSVLS  
PTGGENFTFQIYKADMTCRGFREYHERLQTFLMWFIETASFIDVDDERWHYFLVFEKYNKDGATLFATVGYMTVY  
NYYVYPDKTRPRVSQMLILTPFQQQGHGAQLLETVHRYYTEFPTVLDITAEDPSKSYVKLRDFVLVKLCQDLPCF  
SREKLMQGFNEDMAIEAQQKFINKQHARRVYEILRLLVTDMSDAEQYRSYRLDIKRRLISPYKKKQRD LAKMRK  
CLRPEELTNQMNQIEISMQHEQLEESFQELVEDYRRVIERLAQE



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**FIGURE 283A**

GAATTCGGCACGAGGCCATTGAATCCCAGTCCTAACAGAAGTACTGCGAATCTTGTGGCCTCATTCTGAACAAAA  
GGGATTAGAGAAGAAAAATCTCTTGATATAAGGCTTGAAAGCAAGGGCAGGCAATCTTGGTTGTGAATATTTTCT  
GATTTTTCCAGAAATCAAGCAGAAGATTGAGCTGCTGATGTCAGTTAACTCTGAGAAGTCGTCCTCTTCAGAAAG  
GCCGGAGCCTCAACAGAAAGCTCCTTTAGTTCCTCCTCCTCCACCGCCACCACCACCACCACCGCCACCTTTGCC  
AGACCCACACCCCCGGAGCCAGAGGAGATCCTGGGATCAGATGATGAGGAGCAAGAGGACCCTGCGGACTA  
CTGCAAAGGTGGATATCATCCAGTGAAAATTGGAGACCTCTTCAATGGCCGGTATCATGTTATTAGAAAGCTTGG  
ATGGGGGCACTTCTCTACTGTCTGGCTGTGCTGGGATATGCAGGGGAAAAGATTGTTGCAATGAAAGTTGTAAA  
AAGTGCCACAGCATTATACGGAGACAGCCTTGGATGAAATAAAATTGCTCAAATGTGTTTCGAGAAAGTGATCCAG  
TGACCCAAACAAAGACATGGTGGTCCAGCTCATTGACGACTTCAAGATTTCAAGGCATGAATGGGATACATGTCTG  
CATGGTCTTTCGAAGTACTTGGCCACCATCTCCTCAAGTGGATCATCAAATCCAATATCAAGGCCTCCCAGTACG  
TTGTGTGAAGAGTATCATTTCGACAGGTCTTCAAGGGTTAGATTACTTACACAGTAAGTGCAAGATCATTTCATAC  
TGACATAAAGCCGGAAAAATATCTTGATGTGTGTGGATGATGCATATGTGAGAAAGATGGCAGCTGAGCCTGAGTG  
GCAGAAAGCAGGTGCTCCTCCTCCTCAGGGTCTGCAGTGAGTACGGCTCCACAGCAGAAACCTATAGGAAAAAT  
ATCTAAAAACAAAAAGAAAAAAGTGAAGAAAGAAACAGAAGAGGCAGGCTGAGTTATTGGAGAAGCGCCTGCAGGA  
GATAGAAGAATTGGAGCGAGAAGCTGAAAGGAAAATAATAGAAGAAAAACATCACCTCAGCTGCACCTTCCAATGA  
CCAGGATGGCGAATACTGCCAGAGGTGAACTAAAAACAACAGGATTAGAGGAGGCGGCTGAGGCAGAGACTGC  
AAAGGACAATGGTGAAGCTGAGGACCAGGAAGAGAAAGAAGATGCTGAGAAAGAAAACATTGAAAAAGATGAAGA  
TGATGTAGATCAGGAACTTGCGAACATAGACCCTACGTGGATAGAATCACCTAAAACCAATGGCCATATTGAGAA  
TGGCCCATTTCTACTGGAGCAGCAACTGGACGATGAAGATGATGATGAAGAAGACTGCCCAAATCCTGAGGAATA  
TAATCTTGATGAGCCAAATGCAGAAAGTGATTACACATATAGCAGCTCCTATGAACAATTCAATGGTGAATTGCC  
AAATGGACGACATAAAATTTCCCGAGTCACAGTTCCAGAGTTTTCCACCTCGTTGTTCTCTGGATCCTTAGAACC  
TGTGGCCTGCGGCTCTGTGCTTTCTGAGGGATCACCCTTACTGAGCAAGAGGAGAGCAGTCCATCCCATGACAG  
AAGCAGAACGGTTTTACGCTCCAGTACTGGGGATTTGCCAAAAGCAAAAACCCGGGCAGCTGACTTGTGTTGGTGAA  
TCCCCTGGATCCGCGGAATCGAGATAAAATTAGAGTAAAAATTGCTGACCTGGGAAATGCTTGTGTTGGGTGCATAA  
ACACTTCACGGAAGACATCCAGACGCGTCAGTACCGCTCCATAGAGGTTTTAATAGGAGCGGGGTACAGCACCCC  
TGCGGACATCTGGAGCACGGCGTGTATGGCATTGAGCTGGCAACGGGAGATTATTTGTTTGAACCACATTCTGG  
GGAAGACTATTCCAGAGACGAAGACCACATAGCCCACATCATAGAGCTGCTAGGCAGTATTCCAAGGCACTTTGC  
TCTATCTGAAAAATATTCTCGGGAATTCTTCAATCGCAGAGGAGAACTGCGACACATCACCAAGCTGAAGCCCTG  
GAGCCTCTTTGATGTACTTGTGGAAGATATGGCTGGCCCCATGAAGATGCTGCACAGTTTACAGATTTTCTGAT  
CCCGATGTTAGAAATGGTTCCAGAAAAACGAGCCTCAGCTGGCGAATGTGCGCATCCTTGGTTGAATTCTTAGCA  
AATTCTACCAATATTGCATTCTGAGCTAGCAATGTTCCAGTACATTGGACCTAAACGGTGACTCTCATTCTTT  
AACAGGATTACAAGTGAGCTGGCTTCATCCTCAGACCTTTATTTTGCTTTGAGGTACTGTTGTTTGACATTTTGC  
TTTTTGTGCACTGTGATCCTGGGGAAGGGTAGTCTTTTGCTTTCAGCTAAGTAGTTTACTGACCATTTTCTTCTG  
GAAACAATAACATGTCTCTAAGCATTGTTTCTGTGTTGTGTGACATTCAAATGTCATTTTTTTGAATGAAAAAT  
ACTTTCCCCTTTGTGTTTTGGCAGGTTTTGTAACATTTATGAAGAAATATTTTAGCTGAGTACTATATAATTTA  
CAATCTTAAGAAATTATCAAGTTGGAACCAAGAAATAGCAAGGAAATGTACAATTTTATCTTCTGGCAAAGGGAC  
ATCATTCTGTATTATAGTGTATGTAATGCACCCTGTAAATGTTACTTTCCATTAAATATGGGAGGGGGACTCA  
AATTTTCAGAAAAGCTACCAAGTCTTGAGTGCTTTGTAGCCTATGTTGCATGTAGCGGACTTTAACTGCTCCAAGG  
AGTTGTGCAAACTTTTCATTCCATAACAGTCTTTTCACATTGGATTTTAAACAAAGTGGCTCTGGGTTATAAGAT  
GTCATTCTCTATATGGCACTTTAAAGGAAGAAAAGATATGTTTCTCATTTCTAAATATGCATTATAATTTAGCAG  
TCCCATTTGTGATTTTGCATATTTTTAAAAGTACTTTTAAAGAAGAGCAATTTCCCTTTAAAAATGTGATGGCTC  
AGTACCATGTCTATGTTGCCCTCCTCTGGGCGCTGTAAGTTAAGCTCTACATAGATTAAATTTGGAGAAACGTGTTAA  
TTGTGTGGAATGAAAAAATACATATATTTTTTGGAAAAGCATGATCATGCTTGTCTAGAACACAAGGTATGGTATA  
TACAATTTGCAGTGCAGTGGGCAGAATACTTCTCAGCTCAAAGATAACAGTGATCACATTTCATTCCATAGGTA  
GCTTTACGTGTGGCTACAACAAATTTTACTAGCTTTTTTCAATTGCTTTTCCATGAAACGAAGTTGAGAAAATGATT  
TTCCCTTTGCAGTTGCACACAGTTTTGTTTTATGCATTTCTTAAATTAATTGTAGACTCCAGGATACAAACCA  
TAGTAGGCAATACAATTTAGAATGTAATATATAGAGGTATATTAGCCTCTTTAGAAGTCAGTGGATTGAATGTCT  
TTTTATTTTAAATTTTACATTCATTAAAGGTGCCTCGTTTTTGACTTTGTCCATTAAACATTTATCCATATGCCTTT

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**FIGURE 283B**

GCAATAACTAGATTGTGAAAAGCTAACAAGTGTTGTAAACAATAATCCATTGTTTGAGGTGCTTGCAGTTGTCTTA  
AAAATTAAAGTGTTTGGTTTTTTTTTTTCCAGAAAAAAAAAAAAAAAAAAAAAAAAAATTCCTGC

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**FIGURE 284**

MSVNSEKSSSSSERPEPQQKAPLVPPPPPPPPPPPLPDPTPPEPEEEILGSDDEEQEDPADYCKGGYHPVKIGD  
LFNGRYHVIRKLGWGHFSTVWLCWDMQGKRFVAMKVVKSAQHYTETALDEIKLLKCVRES DSDPNKDMVVQLID  
DFKISGMNGIHVCMVFEVLGHLLKWI IKSNYQGLPVRCVKS IIRQVLQGLDYLHCKKI IHTDIKPENILMCVD  
DAYVRRMAAEPEWQKAGAPPPSGSAVSTAPQQKPIGKISKNNKKKKKKQKRQAEELLEKRLQEIEELEREAERKI  
IEENITSAAPSNDQDGEYCPEVKLKTGLEEAAEAETAKDNGEAEDQEEKEDAENIEKDEDDVDQELANIDPT  
WIESPKTNNGHIENGPF SLEQQLDDEDDDEEDCPNPEEYNLDEPNAESDYTYSSSYEQFNGELPNGRHKIPESQFP  
EFSTSLFSGSLPEPVACGSVLSEGSPLTEQEESSPSHDRSRTVSASSTGDLPAKAKTRAADLLVNPLDPRNRDKIRV  
KIADLGNACWVHKHFTEDIQTRQYRSIEVLIGAGYSTPADIWSTACMAFELATGDYLFEPHSGEDYSRDEDHIAH  
IIELLGSIPRHFALSGKYSREFFNRRGELRHITKLKPWSLFDVLVEKYGWPHEAQAQFTDFLIPMLEMVPEKRAS  
AGECRHPWLNS

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**FIGURE 285**

CCGGTGCGCCCGGCGGAGCGCGCGTGCCTGGCCAGCGCGCTCCCCGCTTCTGCTTGGCTTTCCGGCTTAATTTTC  
CTCGGCGGGATTAAAGTTGGAAATTGACCGGAGAATTGAGTTGCCGGGGAACAGAGCCCCGGCCGCCAGAGC  
**GATG**TTCCCGCAGAGCCGGCACCCGACGCCGACCAGGCTGCAGGCCAGCCCTTCAAGTTCACTATCCCGGAGTC  
CCTGGACCGGATTAAAGAGGAATTCCAGTTCTTGCAGGCGCAGTATCACAGCCTTAAATTGGAATGTGAGAACT  
GGCAAGTGAAAAGACAGAAATGCAGAGGCACTATGTGATGTATTATGAAATGTCATATGGATTAAACATTGAAAT  
GCACAAACAGACTGAAATCGCCAAGAGATTGAATACGATTTGTGCACAAGTCATCCCATTTCTGTCTCAGGAACA  
TCAACAACAGGTGGCCCCAGGCTGTTGAACGTGCCAAACAGGTGACCATGGCAGAGTTGAATGCCATCATCGGGCA  
GCAGCAGTTGCAAGCTCAGCATCTTTCTCATGGCCACGGACCCCCAGTTCCCTTACGCCTCACCCCTTCGGGACT  
TCAGCCTCCTGGAATCCCGCCCCCTCGGGGGCAGTGCCGGCCTTCTTGCGCTGTCCAGTGCTCTGAGTGGGCAGTC  
TCACTTGGCAATAAAAGATGACAAGAAGCACACGATGCAGAGCACACAGAGACAGAGAGCCGGGCACAAGTAA  
TTCCCTCCTGGTCCCAGACAGTCTAAGAGGCACAGATAAACGCAGAAATGGACCTGAATTTTCCAATGACATCAA  
GAAAAGGAAGGTGGATGATAAGGACTCCAGCCACTATGACAGTGATGGTGACAAAAGCGATGACAACTTAGTTGT  
GGATGTGTCTAATGAGGACCTTCTTCTCCGCGAGCAAGCCCTGCCCACTCGCCCCGGGAAAATGGAATCGACAA  
AAATCGCCTGCTAAAGAAGGATGCTTCTAGCAGTCCAGCTTCCACGGCCTCCTCGGCAAGTTCCACTTCTTTGAA  
ATCCAAAGAAATGAGCTTGATGAAAAGCCAGCACGCCTGTTCTGAAATCCAGCACACCAACGCCTCGGAGCGA  
CATGCCAACGCCGGGCACCAGCGCCACTCCAGGCCTCCGTCCAGGTCTCGGCAAGCCTCCAGCCATAGACCCCT  
CGTTAACCAAGCGGCAGCTGGCTTGAGGACACCCCTGGCAGTGCCCGGCCCATATCCTGCTCCTTTTGGGATGGT  
CCCCACGCTGGCATGAACGGCGAGCTGACCAGCCAGGCGCTGCCTACGCCAGTTTACACAACATGTCGCCCA  
GATGAGCGCCGAGCCGCCGCGCGCGCTGGTGGCTACGGGCGCTCCCCATGGTGGGGTTTGATCCTCCCC  
TCACATGAGAGTACCTACCATTCTTCCAAACCTGGCAGGAATCCCTGGGGGAAACCTGCATACTCCTTCCACGT  
TACTGCAGACGGTCAGATGCAGCCTGTCCCTTTTCCCCCGACGCCCTCATCGGACCCGGAATCCCCCGGCATGC  
TCGCCAGATCAACACCCTCAACCACGGGGAGGTGGTGTGCGCTGTGACCATCAGCAACCCACGAGACACGTGTA  
CACAGGCGGGAAGGGCTGCGTCAAGGTCTGGGACATCAGCCACCCTGGCAATAAGAGCCCTGTCTCCAGCTCGA  
CTGTCTGAACAGAGACAATTATATCCGTTCTGTAAATTGCTACCCGATGGCTGCCTCTCATAGTGGGAGGGGA  
AGCCAGTACTTTGTCCATTTGGGACCTGGCGGCTCCAACCCGCGCATCAAGGCGGAGCTGACGTCTCGCCCC  
CGCCTGCTACGCCCTGGCCATCAGCCCCGATTCCAAGGTCTGCTTCTCATGCTGCAGCGACGGCAACATCGCTGT  
GTGGGATCTGCACAACCAGACACTAGTGAGGCAATTCCAGGGCCACACAGACGGAGCCAGCTGTATTGACATTTT  
TAATGATGGCACCAAGCTCTGGACGGGTGGTTTGGACAACACAGTCAGGTCTTGGGACCTGCGCGAGGGGCGGCA  
GCTGCAGCAGCAGACTTACCTCCAGATCTTCTCCCTGGGGTACTGCCCCACCGGGGAGTGGCTGGCAGTGGG  
CATGGAGAGCAGCAATGTGGAGGTGCTGCACGTGAACAAGCCTGACAAGTACCAGCTGCACCTGCATGAGAGCTG  
CGTGCTGTCCCTGAAATTTGCTTACTGTGGTAAATGGTTTGTGAGTACTGGAAAAGATAACCTCCTCAATGCTTG  
GCGGACCCCTATGGAGCCAGCATATTCCAGTCCAAAGAGTCTCGTCAGTGCTTAGCTGTGACATCTCTGTGGA  
TGATAAGTACATAGTCACTGGCTCGGGGACAAGAAGGCTACAGTCTATGAAGTCATCTACT**TG**AAACATTATGT  
GGTTTAACGTTTATAGTTGAATTGGGCCAAAATGTTTCGAATTTATAGAAATAGAAAAGTTGTAACTTTAAAAGA  
GAAAAAAATTACAAACACCTGTTTCCAAACCTTGACAGAAAACCTTTGAGTCTACAAAGAGGAGGCGACAAG  
TCCATCAGCAGAAAGTCACCTGTCTACATAGACCAAATGGAGCACCAAGGCCAAGCGGACAGAGGGGCCATGGGT  
TGTAGGATTGAGGAACGGAATCTGCCGACTCACATGACAGCCCATTCTTTCTTTCTGGGTGATCTGGGGATCACG  
CCTTGCCCAAGTGTGAGATTACCTTTCTGTTCTTGCAGTTCACCTCACTTTCCGTCCTTTGTAGAGCAGTGGTG  
TCTCCAATGAACCTGTTTCTGGTTTTGCATCTTGTGAAATGTTTTTTGTATTTTTGTGTAAGGTTAAACATTT  
GTATAAATTGTAAATATATTTGGTTTATTACAGTAAAGGCTTTAGTACCAATAAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAA

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**FIGURE 286**

MFPQSRHPTPHQAAGQPFKFTIPESLDRIKEEFQFLQAQYHSLKLECEKLASEKTEMQRHYVMYYEMSYGLNIEM  
HKQTEIAKRLNTICAQVIPFLSQEHQQQVAQAVERAKQVTMAELNAIIQQQLQAQHLSHGHGPPVPLTPHPSGL  
QPPGIPPLGGSAGLLALSSALSGQSHLAIKDDKKHDAEHHRDREPGETSNLLVPSLRGTDKRRNGPEFSNDIK  
KRKVDDKDDSHYDSDGDKSDDNLVVDVSNEDPSSPRASPAHSPRENGIDKNRLKKDASSPASTASSASSTSLK  
SKEMSLHEKASTPVLKSSTPTPRSDMPTPGTSATPGLRPGLGKPPAIDPLVNQAAAGLRTPLAVPGYPAPFGMV  
PHAGMNGELTSPGAAYASLHNMS PQMSAAAAAAVVAYGRSPMVGFDPFPHMRVPTIPP NLAGIPGGKPAYSFHV  
TADGQM QPVFPFPDALIGPGIPRHARQINTLNHGEVVC AVTISNPTRHVYTGKGKCVKVDISHPGNKSPVSQLD  
CLNRDNYIRSKLLPDGCTLIVGGEASTLSIWDLAAPT PRIKAELTSSAPACYALAI SPDSKVCFSCCSDGNI AV  
WDLHNQTLVRQFQGHTDGASCIDISNDGTKLWTGGLDNTVRSWDLREGRQLQQHDFTSQIFSLGYCPTGEWLAVG  
MESSNVEVLHV NKPDKYQLHLHESCVLSLKFAYCGKWFVSTGKDNLLNAWRTPYGASIFQSKESSSVLSCDISVD  
DKYIVTGSGDKKATVYEVY

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**FIGURE 287**

GGCACGAGGAGGAGAAGAGCAAAGAAAAGCAGTCCGTCTGGATTTGTTTGCCCAGGACTGGCGCCGCGCACGCGG  
ATCGCCGAGGGGAGTGCGGTGCGAGTCACCGCGCCCCCGCTCCCCGCCCCGGGCAGCTGAGGCCGGGGTTGGAG  
CGCTGCCCCCGCGCACAGTCCCCGAGCGCCCCGACGTCTCCGCGCAGGTTCTTGAAGCAGCTGGGCCTGGGGCGCC  
CACTAATGTGGCCCTGAGGGCCGAGCCCCGACCGACGGGAGCGGGAGCCGGAGCAGCTGCGGGCGCCGAGTGGC  
CGGTGCGCCCCGGCGAGCGCGCTGCGTGGCCAGCGCGCTCCCCGCTTCTGCTTGGCTTTCCGGCTTAATTTTCC  
TCGGCGGGATTAAAGTTGGAAATTGACCGGAGAATTGAGTTGCCGGGGAACAGAGCCCCGGCCGCCGCCAGAGCG  
**ATG**TTCCCCGAGAGCCGGCACCCGACCGCGCACCAGGCTGCAGGCCAGCCCTTCAAGTTCACTATCCCGAGTCC  
CTGGACCGGATTAAAGAGGAATTCAGTTCTTGCAGGCGCAGTATCACAGCCTTAAATTGGAATGTGAGAACTG  
GCAAGTGAAAAGACAGAAATGCAGAGGCACATATGTGATGTATTATGAAATGTCATATGGATTAAACATTGAAATG  
CACAAACAGACTGAAATCGCCAAGAGATTGAATACGATTTGTGCACAAGTCATCCCATTCTGTCTCAGGAACAT  
CAACAACAGGTGGCCCAGGCTGTTGAACGTGCCAAACAGGTGACCATGGCAGAGTTGAATGCCATCATCGGGCAG  
CAGCAGTTGCAAGCTCAGCATCTTTCTCATGGCCACGGACCCCCAGTTCCCCCTTACGCCTCACCTTTCGGGACTT  
CAGCCTCCTGGAATCCCGCCCCCTCGGGGGCAGTGCCGGCCTTCTTGCGCTGTCTAGTGCTCTGAGTGGGCAGTCT  
CACTTGGCAATAAAAGATGACAAGAAGCACACGATGCAGAGCACCACAGAGACAGAGAGCCGGGCACAAGTAAT  
TCCCTCCTGGTCCCAGACAGTCTAAGAGGCACAGATAAACCGCAGAAATGGACCTGAATTTTCCAATGACATCAAG  
AAAAGGAAGGTGGATGATAAGGACTCCAGCCACTATGACAGTGATGGTGACAAAAGCGATGACAACCTTAGTTGTG  
GATGTGTCTAATGAGGACCCTTCTTCTCCGCGAGCAAGCCCTGCCACTCGCCCCGGGAAAATGGAATCGACAAA  
AATCGCCTGCTAAAGAAGGATGCTTCTAGCAGTCCAGCTTCCACGGCCTCCTCGGCAAGTTCCACTTCTTTGAAA  
TCCAAAGAAATGAGCTTGCATGAAAAAGCCAGCACGCCTGTTCTGAAATCCAGCACACCAACGCCTCGGAGCGAC  
ATGCCAACGCCGGGCACCAGCGCCACTCCAGGCCTCCGTCCAGGTCTCGGCAAGCCTCCAGCCATAGACCCCCCTC  
GTTAACCAAGCGGCAGCTGGCTTGAGGACACCCCTGGCAGTGCCCGGCCCATATCCTGCTCCTTTTGGGATGGTC  
CCCCACGCTGGCATGAACGGCGAGCTGACCAGCCCAGGCGCTGCCTACGCCAGTTTACACAACATGTCGCCCCAG  
ATGAGCGCCGAGCCGCCGCGGCCGCGCTGGTGGCCTACGGGCGCTCCCCCATGGTGGGGTTTGATCCTCCCCCT  
CACATGAGAGTACCTACCATTCTTCCAAACCTGGCAGGAATCCCTGGGGGGAAACCTGCATACTCCTTCCACGTT  
ACTGCAGACGGTCAAGTGCAGCCTGTCCCTTTTCCCCCGACGCCCTCATCGGACCCGGAATCCCCCGGCATGCT  
CGCCAGATCAACACCCCTCAACCACGGGGAGGTGGTGTGCGCTGTGACCATCAGCAACCCACGAGACACGTGTAC  
ACAGGCGGGAAAGGGCTGCGTCAAGGTCTGGGACATCAGCCACCCTGGCAATAAGAGCCCTGTCTCCAGCTCGAC  
TGTCTGAACAGAGACAATTATATCCGTTTCTGTAAATTGCTACCCGATGGCTGCACTCTCATAGTGGGAGGGGAA  
GCCAGTACTTTGTCCATTTGGGACCTGGCGGCTCCAACCCCGCGCATCAAGGCGGAGCTGACGTCTCGGCCCCC  
GCCTGCTACGCCCTGGCCATCAGCCCCGATTCCAAGGTCTGCTTCTCATGCTGCAGCGACGGCAACATCGCTGTG  
TGGGATCTGCACAACCAGACACTAGTGAGGCAATTCCAGGGCCACACAGACGGAGCCAGCTGTATTGACATTTCT  
AATGATGGCACCAAGCTCTGGACGGGTGGTTTGGACAACACAGTCAGGTCCTGGGACCTGCGCGAGGGGCGGCAG  
CTGCAGCAGCAGACTTCACCTCCCAGATCTTCTCCCTGGGGTACTGCCCCACCGGGGAGTGGCTGGCAGTGGGC  
ATGGAGAGCAGCAATGTGGAGGTGCTGCACGTGAACAAGCCTGACAAGTACCAGCTGCACCTGCATGAGAGCTGC  
GTGCTGTCCCTGAAATTTGCTTACTGTGGTAAATGGTTTGTGAGTACTGAAAAGATAACCTCCTCAATGCTTGG  
CGGACCCCTATGGAGCCAGCATATTCCAGTCCAAGAGTCCTCGTCAGTGCTTAGCTGTGACATCTCTGTGGAT  
GATAAGTACATAGTCACTGGCTCGGGGGACAAGAAGGCTACAGTCTATGAAGTCATCTACTGAAAACATTATGTG  
GTTTAACGTTTATAGTTGAATTGGGCCAAAATGTTTCGAATTTATAGAAATAGAAAAGTTGTAACTTTAAAAGAG  
AAAAAAATTACAAACACCTGTTTCCAAACCTTGACAGAAAACCTTTGAGTCTACAAAGAGGAGGCGACAAGT  
CCATCAGCAGAAAGTCACCTGTCTACATAGACCAAATGGAGCACCAAGGCCAAGCGGACAGAGGGGCCATGGGTT  
GTAGGATTGAGGAACGGAATCTGCCGACTCACATGACAGCCCATCTTTCTTTCTGGGTGATCTGGGGATCACGC  
CTTGCCCAAGTGTGAGATTACCTTTCTGTTTCTTGCAGTTACCTCACTTTCCGTCCTTTGTAGAGCAGTGGTGT  
CTCCAATGAACCTTGTTCCTGGTTTTGCATCTTGTGAAATGTTTTTTGTATTTTGTGAAGGTTAAACATTTG  
TATAAATTGTAAATATATTTGGTTTATTACAGTAAAGGCTTTAGTACCAATAAAAAAAAAAAAAAAAAA

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**FIGURE 288**

MFPQSRHPTPHQAAGQPFKFTIPESLDRIKEEFQFLQAQYHSLKLECEKLASEKTEMQRHYVMYYEMSYGLNIEM  
 HKQTEIAKRLNTICAQVIPFLSQEHQQQVAQAVERAKQVTMAELNAIIGQQQLQAQHLSHGHGPPVPLTPHPGL  
 QPPGIPPLGGSAGLLALSSALSGQSHLAIKDDKKHDAEHHRDREPGETSNSLLVPSLRGTDKRRNGPEFSNDIK  
 KRKVDDKDSHYDSDGDKSDDNLVVDVSNEDPSSPRASPAHSPRENGIDKNRLLKKDASSPASTASSASSTSLK  
 SKEMSLHEKASTPVLKSSTPTPRSDMPTPGTSATPGLRPGLGKPPAIDPLVNQAAAGLRTPLAVPGYPAPFGMV  
 PHAGMNGELTSPGAAYASLHNMSQMSAAAAAAVVAYGRSPMVGFDPFPHMRVPTIPPNLGIPGGKPAYSFHV  
 TADGQMOPVFPFPDALIGPGIPRHARQINTLNHGEVVCAVTISNPTRHVYTGKGKCVKVWDISHPGNKSPVSQLD  
 CLNRDNYIRSKLLPDGCTLIVGGEASTLSIWDLAAPTTPRIKAELTSSAPACYALAI SPDSKVCFSCCSDGNIAV  
 WDLHNQTLVRQFQGHTDGASCIDISNDGTLKLTGGLDNTVRSWDLREGRQLQQHDFTSQIFSLGYCPTGEWLAVG  
 MESSNVEVLHVKNPKDKYQLHLHESCVLSLKFA YCGKWFVSTGKDNLLNAWRTPYGASIFQSKESSSVLSCDISVD  
 DKYIVTGSGDKKATVYEVY

**FIGURE 289A**

[illegible]



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**FIGURE 289B**

GCACAGCAGGAGCGGTCAGGGCTCCAGGCATCCCCGGGGAAGAAAGGAACGGGGCTTCACAGTGCCTGCCTTCTC  
TAGCGGCACAGAAGCAGCCGGGGGCGCTGACTCCCGCTAGTGTCAGGAGAAAAGTCCCGTGGGAAGAGTCCTGCA  
GGGGTGCAAGGTTGCACGCATGTGGGGGTGCACAGGCGCTGTGGCGGCGAGTGAGGGTCTCTTTTTCTCTGCCTC  
CCTCTGCCTCACTCTCTTGCTATCGGCAITGGGCCGGGGGGTTTCAGAGCAGTGTCTCTGGGGTTCCACGTGC  
AAAATCAACATCAGGAACCCAGCTTCAGGGCATCGCGGAGACGCGTCAGATGGCAGATTTGGAAAGTTAACCATT  
TAAAAGAACATTTTCTCTCCAACATATTTTACAATAAAAGCAACTTTTAATTGTATAGATATATATTTCCCCCT  
ATGGGGCCTGACTGCACTGATATATATTTTTTTTAAAGAGCAACTGCCACATGCGGGATTTTCATTTCTGCTTTTT  
ACTAGTGCAGCGATGTCACCAGGGTGTGTGGTGGACAGGGAAGCCCCCTGCTGTCATGGCCCCACATGGGGTAAG  
GGGGGTTGGGGGTGGGGGAGAGGGAGAGAGCGAACACCCACGCTGGTTTCTGTGCAGTGTTAGGAAAACCAATCA  
GGTTATTGCATTGACTTCACTCCCAAGAGGTAGATGCAAACCTGCCCTTCAGTGAGAGCAACAGAAGCTCTTCACG  
TTGAGTTTGCGAAATCTTTTTGTCTTTGAACTCTAGTACTGTTTATAGTTTCATGACTATGGACAACCTCGGGTGCC  
ACTTTTTTTTTTTTCAGATTCCAGTGTGACATGAGGAATTAGATTTTGAAGATGAGCATATATTACTATCTTTAA  
GCATTTAAAAATACTGTTTACACTTTATTACCAAGCATCTTGGTCTCTCATTCAACAAGTACTGTATCTCACTTT  
AAACTCTTTGGGGAAAAAACAAAAACAAAAAACTAAGTTGCTTTCTTTTTTCAACACTGTAACCTACATTTCA  
GCTCTGCAGAATTGCTGAAGAGCAAGATATTGAAAGTTTCAATGTGGTTTAAAGGGATGAATGTGAATTATGAAC  
TAGTATGTGACAATAAATGACCACCAAGTACTACCTGACGGGAGGCACTTTTCACTTTGATGTCTGAGAATCAGT  
TCAAGGCATATGCAGAGTTGGCAGAGAAACTGAGAGAAAAGGGATGGAGAAGAGAATACTCATTTTTGTCCAGTG  
TTTTTCTTTTTAAGATGAACTTTTAAAGAACCTTGCGATTTGCACATATTGAGTTTATAACTTGTGTGATATTCC  
TGCAGTTTTTATCCAATAACATTGTGGGAAAGGTTTGGGGGACTGAACGAGCATAAATAAATGTAGCAAAATTTT  
TTTCTAACCTGCCTAAACTCTAGGCCATTTTATAAGGTTATGTTCTTTGAAAATTCATTTTGGTCTTTTTACCA  
CATCTGTCACAAAAGCCAGGTCTTAGCGGGCTCTTAGAACTCTGAGAATTTTCTTCAGATTTCATTGAGAGAGT  
TTTCCATAAAGACATTTATATATGTGAGCAAGATTTTTTTTAAACAATTACTTTATTATTGTTGTTATTAATGTT  
ATTTTCAGAATGGCTTTTTTTTTTCTATTCAAAATCAAATCGAGATTTAATGTTTGGTACAAACCCAGAAAGGGTA  
TTTCATAGTTTTTAAACCTTTTCATTTCCAGAGATCCGAAATATCATTGTGGGTTTTGAATGCATCTTTAAAGTG  
CTTTAAAAAAAAGTTTTATAAGTAGGGAGAAATTTTTAAATATTCTTACTTGGATGGCTGCAACTAACTGAACA  
AATACCTGACTTTTTCTTTTACCCCATTTGAAAATAGTACTTTCTTCGTTTCACAAATTAATAAAAAAATCTGGTAT  
CAACCCACATTTTGGCTGTCTAGTATTTCATTTACATTTAGGGTTTACCAGGACTAATGATTTTTTATAAACCGTTT  
TCTGGGGTGTACCAAAAACATTTGAATAGGTTTAGAATAGCTAGAATAGTTTCTTGACTTTCTCGAATTTTCATT  
ACCCCTCTCAGCATGCTTGCAGAGAGCTGGGTGGGCTCATTCTTGCACTCATACTGCTTATTTAGTGCTGTATTTT  
TTAAACGTTTCTGTTTCAGAGAATTTGCTTAATCTTCCATATATTCTGCTCAGGGCACTTGCAATTATTAGGTTTT  
GTTTTTCTTTTTGTTTTTTAGCCTTTGATGGTAAGAGGAATACGGGCTGCCACATAGACTTTGTTCTCATTAATA  
TCACTATTTACAACCTCATGTGGACTCAGAAAAACACACACCACCTTTTGGCTTACTTCGAGTATTGAATTGACTG  
GATCCACTAAACCAACACTAAGATGGGAAAACACACATGGTTTGGAGCAATAGGAACATCATCATAATTTTTGTG  
GTTCTATTTCAAGGTATAGGAATTATAAAATAATTGGTTCTTTCTAAACACTTGTCCATTTTCATTCTCTTGCTTT  
TTTAGCATGTGCAATACTTTCTGTGCCAATAGAGTCTGACCAGTGTGCTATATAGTTAAAGCTCATTCCCTTTTG  
GCTTTTCTCTGTTTGGTTGATCTTCCCATTTCTGCCAGAGCAGGGCTGGAGGGAAGGAGCCAGGAGGGAGAGA  
GCCTCCACCTTTCCCTGCTGCGGATGCTGAGTGTGGGGCGGGGAGCCTTCAGGAGCCCCGTGCGTCTGCCGC  
CACGTTGCAGAAAGAGCCAGCCAAGGAGACCCGGGGGAGGAACCGCAGTGTCCCCTGTCACCACACGGAATAGTG  
AATGTGGAGTGTGGAGAGGAAGGAGGCAGATTTCATTTCTAAGACGCACTCTGGAGCCATGTAGCCTGGAGTCAAC  
CCATTTTCCACGGTCTTTTCTGCAAGTGGGCAGGCCCTCTCGGGTCTGTGTCCTTGAGACTTGGAGCCCTGC  
CTCTGAGCCTGGACGGGAAGTGTGGCCTGTTGTGTGTGTGCGTTCTGAGCGTGTGGCCAGTGGCTGTGGAGGGG  
ACCACCTGCCACCCACGGTCACCACTCCCTTGTGGCAGCTTTCTCTTCAAATAGGAAGAACGCACAGAGGGCAGG  
AGCCTCCTGTTTGCAGACGTTGGCGGGCCCCGAGGCTCCAGAGCAGCCTCTGTACCGCTTCTGTGTAGCAAAC  
ATTAACGATGACAGGGGTAGAAATCTTCCGTGCCGTTTCAGCTTACAAGGATCAGCCATGTGCCTCTGTACTATG  
TCCACTTTGCAATATTTACCGACAGCCGTCTTTTGTCTTTCTTTCTGTTTTCCATTTTTTAACTAGTAACAGC  
AGGCCTTTTTCGTTTTACAATGGAACACAATCACCAAGAAATTAGTCAGGGCGAAAAGAAAAAATAATACTATTA  
ATAAGAAACCAACAAACAAGAACCTCTCTTTCTAGGGATTTCTAAATATATAAAATGACTGTTTCTTAGAATGTT  
TAACTTAAGAATTATTTAGTTTGTCTGGGCCACACTGGGGCAGAGGGGGAGGGAGGGATACAGAGATGGATGC

**FIGURE 289C**

[illegible]



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**FIGURE 291A**

CTACTACAGTGGCGGACGTACAGGACCTGTTTCTACTGCAGGGGGATCCAAAACAAGCCCCGTGGAGCAACAGCCA  
GAGCAACAGCAGCTGCAAGACATTGTTTCTCTCCCTCTGCCCCCCTTCCCCACGCAACCCAGATCCATTTACA  
CTTTACAGTTTTTACCTCACAAAACTACTACAAGCACCAAGCTCCCTGATGGAAAGGAGCATCGTGCATCAAGTC  
ACCAGGGTGGTCCATTCAAGCTGCAGATTTGTTTGTATCCTTGTACAGCAATCTCCTCCTCCACTGCCACTACA  
GGGAAGTGCATCACATGTCAGCATACTGGAGCATAGTGAAAGAGTCTATTTTGAAGCTTCAAACCTTAGTGCTGCT  
GCAGACCAGGAACAAGAGAGAAAGAGTGGATTTTCAGCCTGCACGGATGGTCTTGAAACACAAATGGTTTTTGGTC  
TAGGCGTTTTTACTGAGATTCTCCACTGCCACCCTTTCTACTCAAGCAAAATCTTCGTGAAAAGATCTGCTGCA  
AGGAAGTATAGCTTATGGTTCTCCATTGTGATGAAAGCACATGGTACAGTTTTCCAAAGAAATTAGACCATTTT  
CTTCGTGAGAAAGAAATCGACGTGCTGTTTTCATAGGGTATTTCTCACTTCTCTGTGAAAGGAAGAAAGAACACG  
CCTGAGCCCAAGAGCCCTCAGGAGCCCTCCAGAGCCTGTGGGAAGTCTCCATGGTGAAGTATAGGCTGAGGCTAC  
CTGTGAACAGTACGCAGTGAATGTTTCATCCAGAGCTGCTGTTGGCGGATTGTACCCACGGGGAGATGATTCTCTCA  
TGAAGAGCCTGGATCCCCCTACAGAAATCAAATGTGACTTTCCGTTTATCAGACTAAAATCAGAGCCATCCAGACA  
GTGAAACAGTCACCGTGGAGGGGGGACGGCGAAAAATGAATCCAACCAAGAGCGGAGCAACGAATGCCTGCCTC  
CCAAGAAGCGCGAGATCCCCGCCACCAGCCGGTCTCCGAGGAGAAGGCCCTACCCTGCCAGCGACAACCACC  
GGGTGGAGGGGCACAGCATGGCTCCCGGGCAACCCTGGTGGCCGGGGCCACGGGGGCGGGAGGCATGGGCCGGCAG  
GGACCTCGGTGGAGCTTGGTTTACAACAGGGAATAGGTTTACACAAAGCATTGTCCACAGGGCTGGACTACTCCC  
CGCCAGCGCTCCCAGGTCTGTCCCCGTGGCCACCACGCTGCCTGCCCGTACGCCACCCCGCAGCCAGGGACCC  
CGGTGTCCCCCGTGCAGTACGCTCACCTGCCGCACACCTTCCAGTTTATTGGGTCTTCCCAATACAGTGGAACCT  
ATGCCAGCTTCATCCCATCACAGCTGATCCCCCAACCGCCAACCCCGTCAACAGTGCAGTGGCCTCGGCCGAG  
GGGCCACCACTCCATCCCAGCGCTCCCAGCTGGAGGCCTATTCCACTCTGCTGGCCAACATGGGCAGTCTGAGCC  
AGACGCCGGGACACAAGGCTGAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGCAGC  
AGC  
CCCCCCCCACAGCCAGCAGAACAGTACGTCCACATTTCCAGTTCTCCGAGAACACCGGCCGACCGCCTCTC  
CTCCGGCCATCCCCGTCCACCTCCACCCCCACCAGACGATGATCCACACACGCTCACCTGGGGCCCCCTCCC  
AGGTCTGTCATGCAATACGCCGACTCCGGCAGCCACTTTGTCCCTCGGGAGGCCACCAAGAAAGCTGAGAGCAGCC  
GGCTGCAGCAGGCCATCCAGGCCAAGGAGGTCTGAACGGTGAGATGGAGAAGAGCCGGCGGTACGGGGCCCCGT  
CCTCAGCCGACCTGGGCCTGGGCAAGGCAGGCGGCAAGTCGGTTTCTCACCCGTACGAGTCCAGGCAGTGGTGG  
TCCACCCGAGCCCCCTCAGACTACAGCAGTCGTGATCCTTCGGGGGTCCGGGCCTCTGTGATGGTCTGCCAACA  
GCAACACGCCCGCAGCTGACCTGGAGGTGCAACAGGCCACTCATCGTGAAGCCTCCCCTTCTACCCTCAACGACA  
AAAGTGGCCTGCATTTAGGGAAGCCTGGCCACCGGTCTTACGCGCTCTCACCCACACGGTCAATCAGACCACAC  
ACAGTGCTTCAGAGCCACTCCCGGTGGGACTGCCAGCCACGGCCTTCTACGCAGGGACTCAACCCCTGTCTATCG  
GCTACCTGAGCGGCCAGCAGCAAGCAATCACCTACGCCGGCAGCCTGCCCCAGCACCTGGTGATCCCCGGCACAC  
AGCCCTGCTCATCCCGGTCCGGCAGCACTGACATGGAAGCGTCGGGGGCAGCCCCGGCCATAGTCACGTATCCC  
CCAGTTTGTGTCAGTGCCTCACAGTTTCTGTCACCACCGCCCTTCCCCAAGAGCGAGAACTTCAACCCTGAGGCC  
TGGTCAACCCAGGCCGCTACCCAGCCATGGTGCAGGCCAGATCCACCTGCCTGTGGTGCAGTCCGTGGCCTCCC  
CGGCGGCGGCTCCCCCTACGCTGCCTCCCTACTTCATGAAAGGCTCCATCATCCAGTTGGCCAACGGGGAGCTAA  
AGAAGGTGGAAGACTTAAAAACAGAAGATTTTCATCCAGAGTGCAGAGATAAGCAACGACCTGAAGATCGACTCCA  
GCACCGTAGAGAGGATTGAAGACAGCCATAGCCCGGGCGTGGCCGTGATACAGTTCCGCCGTGGGGAGCACCGAG  
CCCAGGTACAGCGTTGAAGTTTTGGTAGAGTATCCTTTTTTGTGTTTGGACAGGGCTGGTCATCCTGCTGTCCGG  
AGAGAACCAGCCAGCTCTTTGATTTGCCGTGTTCCAACTCTCAGTTGGGGATGTCTGCATCTCGCTTACCCTCA  
AGAACCTGAAGAACGGCTCTGTTAAAAAGGGCCAGCCCGTGGATCCCGCCAGCGTCTCTGTAAGCACTCAAAGG  
CCGACGGCCTGGCGGGCAGCAGACACAGGTATGCCGAGCAGGAAAACGGAATCAACCAGGGGAGTGCCAGATGC  
TCTCTGAGAATGGCGAACTGAAGTTTCCAGAGAAAATGGGATTGCCTGCAGCGCCCTTCTCACCAAAATAGAAC  
CCAGCAAGCCCGCGGCAACGAGGAAGAGGAGGTGGTCGGCGCCAGAGAGCCGCAAACTGGAGAAGTCAGAAGACG  
AACCACCTTTGACTCTTCCTAAGCCTTCTCTAATTCCTCAGGAGGTAAAGATTTGCATTGAAGGCCGGTCTAATG  
TAGGCAAGTAGAGGCAGCGTGGGGGAAAGGAAACGTGGCTCTCCCTTATCATTTGTATCCAGATTACTGTACTGT  
AGGCTAAAATAACACAGTATTTACATGTTATCTTCTTAATTTTAGGTTTCTGTTCTAACCTTGTATTAGAGTTA  
CAGCAGGTGTGTGCGCAGGAGACTGGTGCATATGCTTTTTTCCACGAGTGTCTGTCACTGAGCGGGCGGGAGGAAGG

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**FIGURE 291B**

GCACAGCAGGAGCGGTCCAGGGCTCCAGGCATCCCCGGGAAGAAAGGAACGGGGCTTCACAGTGCCTGCCTTCTC  
TAGCGGCACAGAAGCAGCCGGGGGCGCTGACTCCCGCTAGTGTTCAGGAGAAAAGTCCCGTGGGAAGAGTCCTGCA  
GGGGTGCAGGGTTGCACGCATGTGGGGGTGCACAGGCGCTGTGGCGGCGAGTGAGGGTCTCTTTTCTCTGCCTC  
CCTCTGCCTCACTCTCTTGCTATCGGCATGGGCCGGGGGGTTCAGAGCAGTGTCTCTGGGGTTCACAGTGC  
AAAATCAACATCAGGAACCCAGCTTCAGGGCATCGCGGAGACGCGTCAGATGGCAGATTGGAAAGTTAACCATT  
TAAAAGAACATTTTTCTCTCCAACATATTTTACAATAAAAGCAACTTTTAATTGTATAGATATATATTTCCCCCT  
ATGGGGCCTGACTGCACTGATATATATTTTTTTTTTAAAGAGCAACTGCCACATGCGGGATTTTCATTTCTGCTTTTT  
ACTAGTGCAGCGATGTCACCAGGGTGTGTGGTGGACAGGGAAGCCCCCTGCTGTCTATGGCCCCACATGGGGTAAG  
GGGGGTGGGGGTGGGGGAGAGAGAGCGAACACCCACGCTGGTTTCTGTGCAGTGTAGGAAAACCAATCA  
GGTTATTGCATTGACTTCACTCCCAAGAGGTAGATGCAAACTGCCCTTCAGTGAGAGCAACAGAAGCTCTTCACG  
TTGAGTTTGCGAAATCTTTTTGTCTTTGAACCTCTAGTACTGTTTATAGTTCATGACTATGGACAACCTCGGGTGCC  
ACTTTTTTTTTTTTCAGATTCCAGTGTGACATGAGGAATTAGATTTTGAAGATGAGCATATATTACTATCTTTAA  
GCATTTAAAAATACTGTTTCACTTTATTACCAAGCATCTTGGTCTCTCATTCAACAAGTACTGTATCTCACTTT  
AAACTCTTTGGGGAAAAAACAAAAACAAAAAACTAAGTTGCTTTCTTTTTTCAACACTGTAACCTACATTTCA  
GCTCTGCAGAATTGCTGAAGAGCAAGATATTGAAAGTTTCAATGTGGTTTAAAGGGATGAATGTGAATTATGAAC  
TAGTATGTGACAATAAATGACCACCAAGTACTACCTGACGGGAGGCACTTTTCACTTTGATGTCTGAGAATCAGT  
TCAAGGCATATGCAGAGTTGGCAGAGAACTGAGAGAAAAGGGATGGAGAAGAGAATACTCATTTTTGTCCAGTG  
TTTTTCTTTTTTAAGATGAACTTTTAAAGAACCTTGCGATTTGCACATATTGAGTTTATAACTTGTGTGATATTCC  
TGCAGTTTTTATCCAATAACATTGTGGGAAAGGTTTGGGGGACTGAACGAGCATAAATAAATGTAGCAAAATTTT  
TTTCTAACCTGCCTAAACTCTAGGCCATTTTATAAGGTTATGTTCCCTTGAAAATTCATTTTGGTCTTTTTACCA  
CATCTGTCACAAAAGCCAGGTCTTAGCGGGCTCTTAGAAACTCTGAGAATTTTCTTCAGATTCATTGAGAGAGT  
TTTCCATAAAGACATTTATATATGTGAGCAAGATTTTTTTTTTAAACAATTACTTTATTATTGTTGTTATTAATGTT  
ATTTTCAGAATGGCTTTTTTTTTTCTATTCAAATCAAATCGAGATTTAATGTTTGGTACAAACCCAGAAAGGGTA  
TTTCATAGTTTTTAAACCTTTTCATTCCAGAGATCCGAAATATCATTGTGGGTTTTGAATGCATCTTTAAAGTG  
CTTTAAAAAAAAGTTTTATAAGTAGGGAGAAATTTTTAAATATTCTTACTTGGATGGCTGCAACTAACTGAACA  
AATACCTGACTTTTCTTTTACCCATTGAAAATAGTACTTCTTCGTTTCACAAATTAATAAAAAAATCTGGTAT  
CAACCCACATTTTGGCTGTCTAGTATTCAATTTACATTTAGGGTTCACCAGGACTAATGATTTTTATAAACCGTTT  
TCTGGGGTGTACCAAAAACATTTGAATAGGTTTAGAATAGCTAGAATAGTTCCTTGACTTTCCTCGAATTTCAAT  
ACCCCTCAGCATGCTTGCAGAGAGCTGGGTGGGCTCATTCTTGCACTCATACTGCTTATTTAGTGCTGTATTTT  
TTAAACGTTTCTGTTTCAGAGAATTTGCTTAATCTTCCATATATTCTGCTCAGGGCACTTGCAATTATTAGGTTTT  
GTTTTTCTTTTTGTTTTTTAGCCTTTGATGGTAAGAGGAATACGGGCTGCCACATAGACTTTGTTCTCATTAATA  
TCACTATTTACAACCTCATGTGGACTCAGAAAAACACACACCACCTTTTGGCTTACTTCGAGTATTGAATTGACTG  
GATCCACTAAACCAACACTAAGATGGGAAAACACACATGGTTTGGAGCAATAGGAACATCATATAATTTTTGTG  
GTTCTATTTTCAGGTATAGGAATTATAAAATAATTGGTTCTTTCTAAACACTTGTCCTTTTCAATTTCTGCTTT  
TTTAGCATGTGCAATACTTTCTGTGCCAATAGAGTCTGACCAGTGTGCTATATAGTTAAAGCTCATTCCCTTTTG  
GCTTTTTCTTTGTTTGGTTGATCTTCCCCATTCTGGCCAGAGCAGGGCTGGAGGGAAGGAGCCAGGAGGGAGAGA  
GCCTCCCACCTTTCCCTGCTGCGGATGCTGAGTGTGTTGGGGCGGGGAGCCTTCAGGAGCCCCGTGCGTCTGCCGC  
CACGTTGCAGAAAGAGCCAGCCAAGGAGACCCGGGGGAGGAACCGCAGTGTCCCCTGTACCACACGGAATAGTG  
AATGTGGAGTGTGGAGAGGAAGGAGGCAGATTCATTTCTAAGACGCACTCTGGAGCCATGTAGCCTGGAGTCAAC  
CCATTTTCCACGGTCTTTTTCTGCAAGTGGGCAGGCCCTCTCGGGGTCTGTGTCCTTGAGACTTGGAGCCCTGC  
CTCTGAGCCTGGACGGGAAGTGTGGCTGTGTGTGTGTGCGTTCTGAGCGTGTGGCCAGTGGCTGTGGAGGGG  
ACCACCTGCCACCCACGGTCACCACTCCCTTGTGGCAGCTTTCTCTTCAAATAGGAAGAACGCACAGAGGGCAGG  
AGCCTCCTGTTTGCAGACGTTGGCGGGCCCCGAGGCTCCAGAGCAGCCTCTGTACCGCTTCTGTGTAGCAAC  
ATTAACGATGACAGGGGTAGAAATCTTCCGTGCCGTTTACGCTTACAAGGATCAGCCATGTGCCTCTGTACTATG  
TCCACTTTGCAATATTTACCGACAGCGTCTTTTGTCTTTCTTTCTTTCTGTTTTCCATTTTTAACTAGTAACAGC  
AGGCCTTTTGCGTTTACAATGGAACACAATACCAAGAAATTAGTCAGGGCGAAAAGAAAAAATAATACTATTA  
ATAAGAAACCAACAACAAGAACCTCTCTTTCTAGGGATTTCTAAATATATAAAATGACTGTTTCTTTAGAAATGTT  
TAACTTAAGAATTATTTTCAATTTGTCTGGGCCACACTGGGGCAGAGGGGGAGGGAGGGATACAGAGATGGATGC



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**FIGURE 292**

MKSNQERSNECLPPKKREIPATSRSSSEKAPTLPNDHRVEGTAWLPGNPGGRGHGGGRHGPAGTSVELGLQQGI  
GLHKALSTGLDYSPPSAPRSVPVATTLPAAYATPQPGTPVSPVQYAHLPHTFQFIGSSQYSGTYASFIPSQLIPP  
TANPVTS AVASAAGATTPSQRSQLEAYSTLLANMGSLSQTPGHKAEQQQQQQQQQQQHQQQQQQQQQQQQQQ  
QHLSRAPGLITPGSPPPAQQNQYVHISSSPQNTGRTASPPAIPVHLHPHQTMIPTTLTLGPPSQVVMQYADSGSH  
FVPREATKKAESSRLQQAIQAKEVLNGEMEKSSRYGAPSSADLGLGKAGGKSVPHPYESRHVVVHPSPSDYSSRD  
PSGVRASVMVLPNSNTPAADLEVQQATHREASPSTLNDKSGHLHGKPGHRSYALSPHTVIQTTHSASEPLPVGLP  
ATAFYAGTQPPVIGYLSGQQQAITYAGSLPQHLVIPGTQPLLIPVGSTDMEASGAAPAIVTSSPQFAAVPHTFVT  
TALPKSENFNPEALVTQAAYPAMVQAQIHLPPVQSVASPAAPPTLPPYFMKGSIIQLANGELKKVEDLKTDFI  
QSAEISNDLKIDSSTVERIEDSHSPGVAVIQFAVGEHRAQVSVEVLVEYPFFVFGQGWSSCCPERTSQLFDLPCS  
KLSVGDVCI SLTLKNLKNQSVKKGQPVDPASVLLKHSKADGLAGSRHRYAEQENGINQGSAQMLSENGELKFPEK  
MGLPAAPFLTKIEPSKPAATRKRWSAPESRKLEKSEDEPPLTLPKPSLIPQEVKICIEGRSNVGK

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**FIGURE 293**

GGCGAATGGAGCAGGGGCGCGCAGATAATTAAAGATTTACACACAGCTGGAAGAAATCATAGAGAAGCCGGGCGT  
GGTGGCTCATGCCTATAATCCCAGCACTTTTGGAGGCTGAGGCGGGCAGATCACTTGAGATCAGGAGTTCGAGAC  
CAGCCTGGTGCTTGGCATCTCCCAATGGGGTGGCTTTGCTCTGGGCTCCTGTTCCCTGTGAGCTGCCTGGTCTT  
GCTGCAGGTGGCAAGCTCTGGGAACATGAAGGTCTTGAGGAGCCACCTGCGTCTCCGACTACATGAGCATCTC  
TACTTGCAGTGGAAAGATGAATGGTCCACCAATTGCAGCACCGAGCTCCGCTGTTGTACCAGCTGGTTTTTCT  
GCTCTCCGAAGCCCACACGTGTATCCCTGAGAACAACGGAGGCGCGGGGTGCGTGTGCCACCTGCTCATGGATGA  
CGTGGTCACTGCGGATAACTATACACTGGACCTGTGGGCTGGGCAGCAGCTGCTGTGGAAGGGCTCCTTCAAGCC  
CAGCGAGCATGTGAAACCCAGGGCCCCAGGAAACCTGACAGTTCACACCAATGTCTCCGACACTCTGCTGCTGAC  
CTGGAGCAACCCGTATCCCCCTGACAATTACCTGTATAATCATCTCACCTATGCAGTCAACATTTGGAGTGAAAA  
CGACCCGGCAGATTTGAGAACTATAACGTGACCTACCTAGAACCCTCCCTCCGCATCGCAGCCAGCACCTGAA  
GTCTGGGATTTCTACAGGGCACGGGTGAGGGCTGGGCTCAGTGCTATAACACCACCTGGAGTGAGTGGAGCCC  
CAGCACCAAGTGGCACAACCTCTACAGGGAGCCCTTCGAGCAGCACCTCCTGCTGGGCGTCAGCGTTTCTGCTAT  
TGTCATCTGGCCGTCTGCCGTGTGTGCTATGTGAGCATCACCAAGATTAAGAAAGAATGGTGGGATCAGATTCC  
CAACCCAGCCCGCAGCCGCTCGTGGCTATAATAATCCAGGATGCTCAGGGGTACAGTGGGAGAAGCGGTCCCG  
AGGCCAGGAACAGCCAAGTGCCACACTGGAAGAATTGTCTTACCAAGCTCTTGCCCTGTTTTCTGGAGCACAA  
CATGAAAAGGGATGAAGATCCTCACAAGGCTGCCAAAGAGATGCCTTTCCAGGGCTCTGGAATAATCAGCATGGTG  
CCCAGTGGAGATCAGCAAGACAGTCTCTGGCCAGAGAGCATCAGCGTGGTGCGATGTGTGGAGTTGTTTGAGGC  
CCCGGTGGAGTGTGAGGAGGAGGAGGAGGTAGAGGAAGAAAAAGGGAGCTTCTGTGCATCGCCTGAGAGCAGCAG  
GGATGACTTCCAGGAGGGAAGGGAGGGCATTGTGGCCCGGCTAACAGAGAGCCTGTTCTGGACCTGCTCGGAGA  
GGAGAATGGGGGCTTTTGCCAGCAGGACATGGGGGAGTCATGCCTTCTTCCACCTTCGGGAAGTACGAGTGCTCA  
CATGCCCTGGGATGAGTTCCCAAGTGCAGGGCCCAAGGAGGCACCTCCCTGGGGCAAGGAGCAGCCTCTCCACCT  
GGAGCCAAGTCTCTGCCAGCCGACCCAGAGTCCAGACAACCTGACTTGCACAGAGACGCCCTCGTCATCGC  
AGGCAACCCTGCTTACCGCAGCTTCAGCAACTCCCTGAGCCAGTCACCGTGTCCAGAGAGCTGGGTCCAGACCC  
ACTGCTGGCCAGACACCTGGAGGAAGTAGAACCCGAGATGCCCTGTGTCCCCAGCTCTCTGAGCCAACCACTGT  
GCCCCAACCTGAGCCAGAAACCTGGGAGCAGATCTCCGCCGAAATGTCTCCAGCATGGGGCAGCTGCAGCCCC  
CGTCTCGGCCCCCACCAGTGGCTATCAGGAGTTTGTACATGCGGTGGAGCAGGGTGGCACCCAGGCCAGTGCCT  
GGTGGGCTTGGGTCCCCCAGGAGAGGCTGGTTACAAGGCCTTCTCAAGCCTGCTTGCCAGCAGTGTGTGTCCCC  
AGAGAAATGTGGGTTTGGGGCTAGCAGTGGGGAAGAGGGGTATAAGCCTTTCCAAGACCTCATTCTGGCTGCCC  
TGGGGACCCTGCCCCAGTCCCTGTCCCCTTGTTCACCTTTGGACTGGACAGGGAGCCACCTCGCAGTCCGAGAG  
CTCACATCTCCCAAGCAGCTCCCCAGAGCACCTGGGTCTGGAGCCGGGGGAAAAGGTAGAGGACATGCCAAAGCC  
CCCCTTCCCCAGGAGCAGGCCACAGACCCCTTGTGGACAGCCTGGGCAGTGGCATTGTCTACTCAGCCCTTAC  
CTGCCACCTGTGCGGCCACCTGAAACAGTGTGATGGCCAGGAGGATGGTGGCCAGACCCCTGTGATGGCCAGTCC  
TTGCTGTGGCTGCTGCTGTGGAGACAGGTCTCGCCCCCTACAACCCCCCTGAGGGCCCCAGACCCCTCTCCAGG  
TGGGGTTCCACTGGAGGCCAGTCTGTGTCCGGCCTCCCTGGCACCCCTCGGGCATCTCAGAGAAGAGTAAATCCTC  
ATCATCCTTCCATCTGCCCCCTGGCAATGCTCAGAGCTCAAGCCAGACCCCCAAAATCGTGAACTTTGTCTCCGT  
GGGACCCACATACATGAGGGTCTCTTAGGTGTCATGTCTCTTGTGTGCTGAGTCTGCAGATGAGGACTAGGGCTTA  
TCCATGCCCTGGGAAATGCCACCTCTGGAAGGCAGCCAGGCTGGCAGATTTCCAAAAGACTTGAAGAACCATGGT  
ATGAAGGTGATTGGCCCCACTGACGTTGGCCTAACACTGGGCTGCAGAGACTGGACCCCGCCAGCATTGGGCTG  
GGCTCGCCACATCCCATGAGAGTAGAGGGCACTGGGTGCGCGTGCCCCACGGCAGGCCCCCTGCAGGAAAACCTGAG  
GCCCTTGGGCACCTCGACTTGTGAACGAGTTGTTGGCTGCTCCCTCCACAGCTTCTGCAGCAGACTGTCCCTGTT  
GTAACCTGCCCAAGGCATGTTTTGCCCACCAGATCATGGCCACGTGGAGGCCACCTGCCTCTGTCTCACTGAAC  
TAGAAGCCGAGCCTAGAACTAACACAGCCATCAAGGGAATGACTTGGGCGGCCTTGGGAAATCGATGAGAAATT  
GAACTTCAGGGAGGGTGGTCATTGCCTAGAGGTGCTCATTATTAAACAGAGCTTCCTTAGGTTGATGCTGGAGG  
CAGAATCCCGGTGTCAAGGGGTGTTAGTTAAGGGGAGCAACAGAGGACATGAAAAATTGCTATGACTAAAGCA  
GGGACAATTTGCTGCCAAACACCCATGCCAGCTGTATGGCTGGGGGCTCCTCGTATGCATGGAACCCCCAGAAT  
AAATATGCTCAGCCACCCTGTGGGCCGGGCAATCCAGACAGCAGGCATAAGGCACCAGTTACCCTGCATGTTGGC  
CCAGACCTCAGGTGCTAGGGAAGGCGGGAACCTTGGGTTGAGTAATGCTCGTCTGTGTGTTTTAGTTTCATCACC  
TGTTATCTGTGTTTGCTGAGGAGAGTGGAACAGAAGGGGTGGAGTTTTGTATAAATAAAGTTTCTTTGTCTC



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**FIGURE 294**

MGWLCSGLLFPVSCIVLLQVASSGNMKVLQEPTCVSDYMSISTCEWKMNPTNCSTELRLLYQLVFLLSEHTCI  
PENNGGAGCVCHLLMDDVVSADNYTLDLWAGQQLWKGSFKPSEHVKPRAPGNLTVHTNVSDTLLLTWSNPYP  
NYLYNHLTYAVNIWSENDPADFRIYNVTYLEPSLRIAASTLKSGISYRVRVRAWAQCYNNTWSEWSPSTKWHNSY  
REPFEQHLLLVSVSCIVILAVCLLCYVSITKIKKEWWDQIPNPARSRLVAIIIQDAQGSQWEKRSRGQEPAC  
HWKNCLTKLLPCFLEHNMKRDEDPHKAAKEMPFQSGKSAWCPVEISKTVLWPESISVVRVELFEAPVECEEEE  
EVEEEKGSFCASPESRDFQEGREGIVARLTESLFLDLLGEENGFCQQDMGESCLLPSPGSTSAHMPWDEFPS  
AGPKEAPPWGKEQPLHLEPSPPASPTQSPDNLTCTETPLVIAGNPAYRSFSNLSQSPCPRELGPDP LLARHLEE  
VEPEMPCVPQLSEPTTVPQPEPETWEQILRRNVLQHGAAPVSAPTSGYQEFVHAVEQGGTQASAVVGLGPPGE  
AGYKAFSSLLASSAVSPEKCGFGASSGEEGYKPFQDLIPGCPGDPAPVPLFTFGLDREPPRSPQSSHLPS  
EHLGLEPGEKVEDMPKPPLPQEQATDPLVDSLGSIVSALTCHLCGHLKQCHGQEDGGQTPVMASPCCGCCCGD  
RSSPPTPLRAPDPSPGGVPLEASLCPASLAPSGISEKSKSSSFHPAPGNAQSSSQTPKIVNFVSVGPTYMRVS

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**FIGURE 295**

ATTCGAGTGCTCCGGAGAACAGACCCGCGCCCCGCCGTCCGCGAGCCTCCCGAGAGCCGTCCCTTCGTCCGGCCC  
TGGAGCATTGCGTTTGTGCGCGGTGTGCGAGTGCGAGGATGGCGCCGCGGGTGTAGCGGCTCTCTGCGCAGGCCG  
AGTGGGCCCAGAGAAGCGAGGAACCCCCAGATCGCCGACACGTCTCGTCTCCTGTCCCAATTCAGGGCTTGGTG  
AGGTGACTCGCGGTGCGGGTGACTCGCCGGCAGGACACTGCCTGGAACGCCTGGAGCGCCTCCCACTGCAGACG  
TCTGTCCGCCTCCAGCCGCTCTCCTCTGACGGGTCTGCCTCAGTTGGCGGAATGGCGGCCACGGGAGCCAATGC  
AGAGAAAGCTGAAAGTCACAATGATTGCCCCGTCAGACTTTTAAATCCAAACATAGCAAAAATGAAAGAAGATAT  
TCTCTATCATTTCAATCTCACCCTAGCAGACACAATTTCCAGCCTTGTTTGGAGATGTGAAGTTTGTGTGTGT  
TGGTGGAAGCCCCCTCCCGGATGAAAGCCTTCATCAGGTGCGTTGGTGCGAGAGCTGGGCTTGACTGCCCAGGTAG  
AGACTATCCCAACATCTGTGCGGGAACCTGACCGCTATGCCATGTATAAAGTAGGACCGGTGCTGTCTGTCACTCA  
TGGTATGGGCATTTCCTTCTATCTCAATCATGTTGCATGAGCTCATAAAGCTGCTGTACTATGCCCGGTGCTCCAA  
CGTCACTATCATCCGCATTGGCACTTCTGGTGGGATAGGTCTGGAGCCCGGCACTGTGGTCATAACAGAGCAGGC  
AGTGGATACCTGCTTCAAGGCAGAGTTTGAGCAGATTGTCCTGGGGAAGCGGGTCATCCGGAACCGACCTTAA  
CAAGAAGCTGGTGCAGGAGCTGTTGCTGTGTTCTGCAGAGCTGAGCGAGTTCACCACAGTGGTGGGGAACACCAT  
GTGCACCTTGGACTTCTATGAAGGGCAAGGCCGTCTGGATGGGGCTCTCTGCTCCTACACGGAGAAGGACAAGCA  
GGCGTATCTGGAGGCAGCCTATGCAGCCGGCGTCCGCAATATCGAGATGGAGTCCTCGGTGTTTGCCGCCATGTG  
CAGCGCCTGCGGCCTCCAAGCGGCCGTGGTGTGTGTACCCCTCCTGAACCGCCTGGAAGGGGACCAGATCAGCAG  
CCCTCGCAATGTGCTCAGCGAGTACCAGCAGAGGCCGAGCGGCTGGTGAGCTACTTCATCAAGAAGAACTGAG  
CAAGGCCTGAAGCGCTGCCCTGCACCTCCGCGAGACCTGCTGTGATGACTTGCCATTAAAAGCATTGTCCAAACCC

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**FIGURE 296**

MAATGANAEKAESHND CPVRLNPNI AKMKEDILYHFNLTTSRHNFPALFGDVKFVCVGGSPSRMKAFIRCVGAE  
LGLDCPGRDYPNICAGTD RYAMYKVG PVL SVSHGMGIPSI SIMLHELKLLYYARCSNVTIIRIGTSGGIGLEPG  
TVVITEQAVDTCFKA EFEQIVLGKRVIRKTDLNKKLVQELLCSAELSEFTTVGNTMCTLDFYEGQGRLDGALC  
SYTEKDKQAYLEAAYAAGVRNIEMESSVFAAMCSACGLQA AVCVTLLNRLEGDQISSPRNVLSEYQQRPQRLVS  
YFIKKKLSKA

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**FIGURE 297**

GGCACGAGGGCGCGCAAGGCACCGGTGGCAGCGGCGACGGCAGCTGCGACAGCAACCCCTGCTGGGCGGAACTG  
GGCAGAGCGGAGCAGACGTCTGAAGCAGCGCGAGTGAGGCGCGAGGGTAGCGCCCGCGCCCGGGAAGACCCCTCG  
GCGCGAACC GGCGAGCCAGCCCGGGTCCCGTTCCCAAGGCCCCGCCTCTAGGGCCTGGGGACTAATCGGATTG  
AGAGCGCGCCGGCCCGGGCCGCGAACTCGCCAATTGCGGAGGGCGGTGGCCACCGCCCAATCCGGAGCAGACAGG  
TGCGAGGTCCGGAAGGCGGAGGCCAATCGGCGGCGGTTGCGACCTGCTGGGGCAGGTCTCGGCCAATAAGGAGGC  
TCGAGTGACATCTTCGCGCACCAATCGGGAGTGAGGGAGCATTCTGTGCCCGCTCGCCCTTCGGGCCAGACCTCTA  
TTTACCAGGGGCGTGCGAGCCCGCTTGCCAATCAGAGCGCGGCTGAGCGGCCCCGAGCCAACCCCGAGGAGCGG  
CCGGCTGGCGTCCGCCGCGCCAGGAGTTGGGGATGTCCTACAAACCCATCGCCCTGCTCCAGCAGCACCCCT  
GGCTCCAGCACCCCTGGGCCGGGCACCCCGGTCCCTACAGGAAGCGTCCCGTCGCCGTCGGGCTCAGTGCCAGGA  
GCCGGCGCTCCTTTTACAGCCGCTGTTTAACGACTTTGGACCGCCTTCCATGGGCTACGTGCAGGCGATGAAGCCA  
CCCGGCGCCCAGGGCTCCAGAGCACCTACACGGACCTGCTGTCTAGTCATAGAGGAGATGGGCAAAGAGATCCGG  
CCTACCTATGCTGGCAGCAAGAGCGCCATGGAGCGCCTGAAGAGAGGTATCATCCATGCCCGGGCCCTAGTCAGA  
GAGTGCCTGGCAGAGACAGAGCGGAACGCGCGCACGTAAACAGGAAGCGCCTCGGCCTCAGCGTCTGGACCTATCC  
GGCCACTGCAGAGCACCCGCTTCTCCCTGGCCTTCATCCCGAGTTGCACTAACCATCCTGGGCTTCCTGTCTGT  
GTCCCTTGGTGGGTCCCCCTCCAGGAACCAAGGAGTGGCCCTCCAGGTGGCAGCACTAAGGACACCCCCCACAAC  
AAGAGTTAGCAGCGAGGTCCCCATGAGTCCCACCCATGACCTGCCGACAGTGTTGCCACCGGAACTTTTGTGGC  
CCCTACCGCTCAGCCCTTCCCAGCACTTCTCCCACTTTGTCCCGAGCCTCCTTCTCCCCCAGCAGGGGCACAGGC  
CTGGCACCTCCCTGCCTTGTGTCTGAGCCATAGTGACTCTTTTATCTGTGTGTCTTTTGCTAAATATGCCCTTT  
TTATATTAATAAAAGATGATTTGGAGTTGTGCTCTCAAAAAAAAAAAAAAAAAAAAAA

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## FIGURE 298

MSYKPIAPAPSSTPGSSTPGPGTPVPTGSPSPSGSVPGAGAPFRPLFNDFGPPSMGYVQAMKPPGAQGSQSTYT  
DLLSVIEEMGKEIRPTYAGSKSAMERLKRGI IHARALVRECLAETERNART

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**FIGURE 299**

**ATG**GCGACTGCGACCCCCGTGCCGCCGCGGATGGGCAGCCGCGCTGGCGGCCCCACCACGCCGCTGAGCCCCACG  
CGCCTGTGCGGGCTCCAGGAGAAGGAGGAGCTGCGCGAGCTCAATGACCGGCTGGCGGTGTACATCGACAAGGTG  
CGCAGCCTGGAGACGGAGAACAGCGCGCTGCAGCTGCAGGTGACGGAGCGCGAGGAGGTGCGCGGCCGTGAGCTC  
ACCGGCCTCAAGGCGCTCTACGAGACCGAGCTGGCCGACGCGCGACGCGCGCTCGACGACACGGCCCGCGAGCGC  
GCCAAGCTGCAGATCGAGCTGGGCAAGTGCAAGGCGGAACACGACCAGCTGCTCCTCAACTATGCTAAGAAGGAA  
TCTGATCTTAATGGCGCCCAGATCAAGCTTCGAGAATATGAAGCAGCACTGAATTCGAAAGATGCAGCTCTTGCT  
ACTGCACTTGGTGACAAAAAAGTTTAGAGGGAGATTTGGAGGATCTGAAGGATCAGATTGCCAGTTGGAAGCC  
TCCTTAGCTGCAGCCAAAAACAGTTAGCAGATGAACTTTACTTAAAGTAGATTTGGAGAATCGTTGTCAGAGC  
CTTACTGAGGACTTGGAGTTTCGCAAAAGCATGTATGAAGAGGAGATTAACGAGACCAGAAGGAAGCATGAAACG  
CGCTTGGTAGAGGTGGATTCTGGGCGTCAAATTGAGTATGAGTACAAGCTGGCGCAAGCCCTTCATGAGATGAGA  
GAGCAACATGATGCCCCAAGTGAGGCTGTATAAGGAGGAGCTGGAGCAGACTTACCATGCCAACTTGAGAATGCC  
AGACTGTATCAGAGATGAATACTTCTACTGTCAACAGTGCCAGGGAAGAACTGATGGAAAGCCGCATGAGAATT  
GAGAGCCTTTTCATCCCAGCTTTCTAATCTACAGAAAGAGTCTAGAGCATGTTTGGAAAGGATTCAAGAATTAGAG  
GACTTGCTTGCTAAAGAAAAAGACAACCTCTCGTCGCATGCTGACAGACAAAGAGAGAGAGATGGCGGAAATAAGG  
GATCAAATGCAGCAACAGCTGAATGACTATGAACAGCTTCTTGATGTAAAGTTAGCCCTGGACATGGAAATCAGT  
GCTTACAGGAAACTCTTAGAAGGCGAAGAAGAGAGGTTGAAGCTGTCTCCAAGCCCTTCTTCCCGTGTGACAGTA  
TCCCAGCATCCTCAAGTCGTAGTGTACGTACAACCTAGAGGAAAGCGGAAGAGGGTTGATGTGGAAGAATCAGAG  
GCGAGTAGTAGTGTTAGCATCTCTATTCCGCCCTCAGCCACTGGAAATGTTTGCATCGAAGAAATTGATGTTGAT  
GGGAAATTTATCCGCTTGAAGAACACTTCTGAACAGGATCAACCAATGGGAGGCTGGGAGATGATCAGAAAAATT  
GGAGACACATCAGTCAGTTATAAATATACCTCAAGATATGTGCTGAAGGCAGGCCAGACTGTTACAATTTGGGCT  
GCAAACGCTGGTGTACAGCCAGCCCCCACTGACCTCATCTGGAAGAACCAGAACTCGTGGGGCACTGGCGAA  
GATGTGAAGGTTATATTGAAAAATTCTCAGGGAGAGGAGGTTGCTCAAAGAAGTACAGTCTTTAAACAACCCATA  
CCTGAAGAAGAGGAGGAGGAGGAAGAAGCAGCTGGAGTGGTTGTTGAGGAAGAACTTTTCCACCAGCAGGGAACC  
CCAAGAGCATCCAATAGAAGCTGTGCAATTATG**TAAA**ATTTTCAACTGTCTTCTCTCAAATAAAGAAGTATGGTA  
ATCTTTACCTGTATACAGTGCAGAGCCTTCTCAGAAGCACAGAATATTTTTATATTTCTTTTATGTGAATTTTAA  
AGCTGCAAATCTGATGGCCTTAATTTCTTTTTTGACACTGAAAGTTTTGTAAAAGAAATCATGTCCATACACTTT  
GTTGCAAGATGTGAATTATTGACACTGAACTTAATAACTGTGTACTGTTCCGAAGGGGTTCTCAAATTTTTTGA  
CTTTTTTTGTATGTGTGTTTTTTCTTTTTTTTTAAGTTCTTATGAGGAGGGGAGGGTAAATAAACCCTGTGCGT  
CTTGGTGTAAATTTGAAGATTGCCCCATCTAGACTAGCAATCTCTTCATTATTCTCTGCTATATATAAAACGGTGC  
TGTGAGGGAGGGGAAAAGCATTTTTCAATATATTGAACTTTTGTACTGAATTTTTTTGTAAATAAGCAATCAAGGT  
TATAATTTTTTTTTAAATAGAAATTTTGTAAAGGCAATATTAACCTAATCACCATGTAAGCACTCTGGATGAT  
GGATTCCACAAAACCTTGTTTTATGTTTACTTCTTCTTAGATTCTTAATTCATGAGGAGGGTGGGGGAGGGAG  
GTGGAGGGAGGGGAAGGGTTTCTCTATTAATAATGCATTGTTGTGTTTTTTAAGATAGTGTAACTTGCTTAAATTT  
CTTATGTGACATTAACAAATAAAAAAGCTCTTTT

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**FIGURE 300**

MATATPVPPRMGSRAGGPTTPLSPTRL SRLQEKEELRELNDRLAVYIDKVRSL ETENSALQLQVTEREEV RGREL  
TGLKALYETELADARRALDDTARERAKLQIELGKCKAEHDQLLN YAKKESDLNGAQIKLREYEAALNSKDAALA  
TALGDKKSLEGDLEDLKDQIAQLEASLAAAKQLADETLLKVDLENRCQSLTEDLEFRKSMYEEEINETRRKHET  
RLVEVDSGRQIEY EYKLAQALHEMREQHDAQVRLYKEELEQTYHAKLENARLSSEMNTSTVNSAREELMESRMRI  
ESLSSQLSNLQKESRACLERIQELEDLLAKEKDNSRRMLTDKEREMAEIRDQMQQQLNDYEQLLDVKLALDMEIS  
AYRKLLLEGEEERLKLSPSPSSRVTVSRASSRSVRTRGKRKRVDVEESEASSSVSISHSASATGNVCIEEIDVD  
GKFIRLKNTSEQDQPMGGWEMIRKIGDTSVSYKYTSRYVLKAGQTVTIWAANAGVTASPTD LIWKNQNSWGTGE  
DVKVILKNSQGEEVAQRSTVFKTTIPEEEEEEEEAAGVVVEEELFHQQGTPRASNRSCAIM

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**FIGURE 301A**

ATCAAATGTGGGGTTTGTACATTCCGCTGCCGCCGCGGACAGTTCTTAAAGGGCCAGCCGCCGGCTGCCGCGCA  
GACCCAGCTGCGTCCTGCGCCGCCTCCCGCTCCCTGAGGGCCTGGGCCGAGAGAGACTGATCGCGCGTGGGCCTC  
GCGAGGCAGACGCCGTCGGGCGGACAACAAAGAGAGAGGGCCCCGGAAGGAGCCGGGCTGCCCCCGGACCCGGGG  
TGGGGAGGGGAGCACATTGTTCCGCAGGGCGGGAGCTCTTAAAGGATCCAGACAGGCACCCCCCCCCCTCCCCGC  
CCCCTGCCAGTTTGGCCGTCCTAGATCGGGAACAAAGGAGTCAACGTGTGGCCGGGCGGCCAAAGGGTTGTGAG  
TCCCCGGCCAGCCCCCTCCACCCCCCTGCCCCCGGATGCGACCATGGGCTCTGGCAGTGACTAGGTGGCCACCCT  
CCGCCCCCGTGGGCCAGCGCGATTCTCTGCGGGACCTGGCAGCACCCCCGGGCCAGCTCTGGGGAAGCCCTGGCC  
TCGAGGGCCCCCTGGCCAGCCCGCTGCCCGGGATGAGCGCTTACCCTCCCAGCAGCCGCCGTCCCGACCTCCAC  
ACCTCCCCGTAGAGGAGCGCCGAGCCTCGGCTCCTGCCGGCGGGAGCCCCCGAATGCTGCACCCAGCCACCCAGC  
AGAGCCCGTTTATGGTTGATCTCCACGAGCAGGTGCACCAGGGACCTGTCCCTCTGTCTACACGGTCACCACAG  
TGACGACCCAAGGCTTCCCTTGCCCTACAGGCCAGCACATCCCTGGCTGCAGTGCCAGCAGCTCCAGCATGCT  
CCGTGATGTTTCACTGGGCGAGCATTACCCCCCTCTGCTGCCTCCCCGCCCCCGCTTATCCAGGCGTGACCATGCAGC  
AGCTGCCTGTGCCCTATCAGGCCTACCCCCACCTCATCTCCAGTGACCACTACATCCTGCACCCCCCACCACCGG  
CCCCACCCCCCAGCCACCCACATGGCGCCCCCTGGGGCAGTTTGTGTCTCTGCAGACCCAGCACCCCTCGGATGC  
CCCTCCAGCGGCTCGACAACGACGTGGACCTGCGTGGGGACAGCCCTCCCTGGGCAGCTTACCTACTTCCACCT  
CTGCGCCTGGCCAGCCCTTCCCGCTCGGTGCCCTGCACTACCTGCCCCACGATCCGCTGCACCAGGAGCTGT  
CCTTTGGTGTGCCATATTCTCACATGATGCCACGGAGACTGAGCACCCAGAGATAACGCTGCAGCAGCCACTGC  
CCCCGCGCCCCCACCACCACCCACCCCTACTACCCAGCTTCCCTGCCCTACTTCTCTCGATGCTGCCAA  
TGTCACCAACAGCAATGGGGCCCACCATCAGCCTGGACCTGGACGTGGATGATGTGGAGATGGAGAACTATGAGG  
CCCTCCTGAACCTGGCCGAGCGGCTGGGAGATGCCAAGCCCCGGGGTCTCACCAAAGCAGACATAGAGCAGCTCC  
CGTCGTACCGCTTTAACC CGGACAGCCATCAGTCGGAGCAGACGCTGTGTGTGGTCTGCTTCACTGACTTCGAGG  
CGCGGCAGCTGCTCCGAGTCTCCCTGCAACCATGAGTTCCACACCAAGTGTGTTGACAAGTGGTTGAAGGCCA  
ACCGGACGTGTCCCATCTGCCGGGCCGACGCTCCGAGGTGCCAGGGAGGCTGAGTGAAGGCCACGCAGCCGCT  
GCCCCGGGAGAACCCTGCCTGAAGCTCTGGAACCTTGTGGGTGGGGCCCAGGGAGGATGGGGAGGGAGTGGCCAG  
GCCTGCCCCCTTCGCTCCTGCCTGCATTTCAGAGCTGGTGCCAGGGTCAGCCAGCGAGGAGTCCCTGCAATAAG  
CCCCTGCATTTGCCAAGCTCCAAAGACTCCCTCCCTAGTCTGCCTGCCCCGCCGCCACGGAGCTGCCTGAG  
TGTCCTGATCGGGTCTCCCTCCTGTGCACCCTCAGGTCCCTCCTTTTCTGCTGGCACTGAGTGCCAGGGGTCC  
GCTCCCTCAGTGGGGCCGGTGGAGATCCTTGGCCCCAGGATGGGCAGACAGAGCACCATCCTGGGTGAGAAGGTC  
TCATGCTCTGAAATGGCGTGCCCTCTGCCAGGTGGCACTGCCAGGTGCGTAGACAGACGGTGTACAGAGCCATT  
TCCTGAGCCCCAGGGCTGAATCCCCCTCCTTGACCCCGAACAGTGAACCTCAGGCAGCTGGCTCTGTGTTGGCTG  
CTGTGAGGGCTGAGTCTGGTTCCCTAGGGGACCCTCATCCCAGGAACAACATTCCAGCCCCACCCTCAGGCTGGA  
GGGCGTCCAGCCTAATCCCGAGCTGGGGCACACGTATCCTGAGGGGCTTGGGCCATACGGGGAGAGGGAGCCCT  
GTGTTCCCGGTGGTTGTCCCTCCAGGGATGCAGCCAGACCCGTGCCAATCTCCTCTCCCTCTGTTGTTTGA  
TGAACGTGAGGAGCAGCAGTTTTTGTTCATTCTTTGGCCCCAAATCACGTGTAGGATTGGGGATGTGGATATT  
TAAGACAATTTCTTTTTTCTTTTGGTTTAAATAGGGGCGGGTATAGGGACCAACTGGGACCGAGTGCCAGGGGGC  
CGAGCACGGTCATGCTGGCCGGCCTGCATGCATGCGTGTGCCGGGCTGGGCTGGGCGGCCGGCGGTCTGGGGCA  
GGGTTGGGGGTCTGTGCTCAGCTGATAACTGCCATGCACTGTACTGCACACGTCCCTAGAGCCTACCGGGACCCG  
ACGCTTTTTCAGGCATTTCTCCCTCCAGCCAGGGCCCCAACTCCACCTGCCTGGGCGAATCTCCTCCAAGGAAGT  
CCCAGGAGGATGGGGACCAGGAAGGCTGTGGACCCCATCTCCAGGGGGCCTTCCAGCCTGATCCCTGTCTCC  
AAGTTCTGGAGGAGCGCTGTAGGGTCTGGCTGAGCTTCCACCCACTTTCCCTGGTCCCAATCCTTTCTTGT  
CTATACCCAGCTGGGGTTGCTGCCCTGAACGAACTGCGTGTGGGGCCGGCACATCCTAGCAGGCAGCCCCTGCGG  
CCTGCTGCCTCAGGGATGCTCCAACCACCTCGTTCTCCTCGCAGTGCCCTGGCTCCACCTCCCGCCCCAGCC  
TGCCGTGGGGCCCGTCAGCCTGGTCCCACCCCATGGAGAACCCTAAAGTCTTACTGTATATAACTCCAGGTGACG  
TTTCTATATTTATAGCAGTGTGAAAACCCACGTGTTTACACAGAACCCCTCTCCAACCCCTCCCTTCCCGA  
CCCCAACAAAACGTTTTCAAACCCCTTACAGTTCTTGGGGCAGGCGGAAACAGGCTCACAGATTGTGTGTCGGCT  
GCAGCAGTGATTCCAACAAGCAGCTATTGGGGGGGAAACACAGCATTTAAAAAGATCATATTAAAAACAAGAT  
TTATACAACAATTACTTAGGATGTTTGTGATCCGCCGACCTTGCTATAGATGCCATGTTACCAATGATTTCCTGT  
GGTGGGGGCTTGCCATTGTTTACTCTCTTATTTACCAACTTCTGGCCTAGGCATGACAGTGGGCACCTTCCCCCA



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**FIGURE 301B**

GCCCTGGCTGGGCCCAGCGCCTGTGTTCTGTGTTAGAAAGGTTTTATATATATATAAAATTACATATATATGTAG  
AAATATATGTAATTTTGGGGGCCCTGTTTCCTTGCACATTTTACAGTTACCTCATTTCATGTATGTATTTGA  
GAAAATGCTAATATATAGAGAAAAAATGGTTCTTAAAGCTTAAATGTGTGGTTTTTCCATTCCATGGGATTCA  
CATTGGTTTGTAGCATTTAACATAACTAGTATGTTGTATTATATATATGTGTATACTGATTGAAATTTTAAACAG  
ATTTGTACTTTTTTAAATGAAAGTTGCTAGTTCTGCTTGACCAAGTAGTGCAATCATTATTTTTTTAATATT  
GTTGCTGATTCAGAGGGATATTCACATAAATGTATGATGTATACC

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**FIGURE 302**

MRPWALAVTRWPPSAPVQRRFSAGPGSTPGQLWGSPGLEGLASPPARDERLPSQQPPSRPPHLPVEERRASAP  
AGGSPRMLHPATQQSPFMVDLHEQVHQGPVPLSYTVTTVTQGFPLPTGQHIPGCSAQQLPACSVMFSGQHYPLC  
CLPPPLIQACTMQQLVPYQAYPHLISSDHYILHPPPPAPPPQPTHMAPLGQFVSLQTQHPRMPLQRLDNDVDLR  
GDQPSLGSTYSTSAPGPALSPSVPLHYLPHDPLHQELSFGVPYSHMMPRRLSTQRYRLQQPLPPPPPPPPPPY  
YPSFLPYFLSMLPMSPTAMGPTISLDLDVDDVEMENYEALLNLAERLGDAKPRGLTKADIEQLPSYRFNPD SHQS  
EQTLCVVCFSDFEARQLLRVLP CNHEFHTKCVDKWLKANRTCPICRADASEVPREAE

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**FIGURE 303**

CGCACCATAACCGGCGCGGGCACCTGGGGAGAAATGGATGGAGAAGGGACCTGGCTGGAAAGCTTTGCCCCGCTGC  
TCTGCTCCGCCCATAAGAGGACCCCTGAAATGTCCCGTGAGTTTGTTCAGTCCCCTGTGTGATGAAATGTGCC  
TCTCGCCTTACCCGTGTGAGAATACCTGTGGTGTGGCAGCGAGTATTTTGGTATTTGACCTGTCCAAAGACGACT  
TGATACCTCTATAATGTAACAGAAAAGGTCAGAAAATATTAAGCAAGTAGAAGTGTGGAGCATATTAAGCAAGAT  
GAACATCTCGGGAAGCAGCTGTGGAAGCCCTAACTCTGCAGATACATCTAGTGACTTTAAGGACCTTTGGACAAA  
ACTAAAAGAATGTCATGATAGAGAAGTACAAGGTTTACAAGTAAAAGTAACCAAGCTAAAACAGGAACGAATCTT  
AGATGCACAAAGACTAGAGAATTCTTACCAAAAATCAACAGCTGAGGGAACAGCAGAAAAGTCCTTCATGAAAC  
CATTAAAGTTTTAGAAAGATCGGTTAAGAGCAGGCTTATGTGATCGCTGTGCAGTAACTGAAGAACATATGCGGAA  
AAAACAGCAAGAGTTTGAAAATATCCGGCAGCAGAATCTTAACTTATTACAGAACTTATGAATGAAAGGAATAC  
TCTACAGGAAGAAAATAAAAAGCTTTCTGAACAACCTCCAGCAGAAAAATTGAGAATGATCAACAGCATCAAGCAGC  
TGAGCTTGAATGTGAGGAAGACGTTATTCCAGATTACCCGATAACAGCCTTCTCATTTTCTGGCGTTAACCGGCT  
ACGAAGAAAGGAGAACCCCCATGTCCGATACATAGAACAAACACATACTAAATTGGAGCACTCTGTGTGTGCAAA  
TGAAATGAGAAAAGTTTCCAAGTCTTCAACTCATCCACAACATAATCCTAATGAAAATGAAATTCTAGTAGCTGA  
CACTTATGACCAAAGTCAATCTCCAATGGCCAAAGCACATGGAACAAGCAGCTATACCCCTGATAAGTCATCTTT  
TAATTTAGCTACAGTTGTTGCTGAAACACTTGGACTTGGTGTTCAAGAAGAATCTGAAACTCAAGGTCCCATGAG  
CCCCCTTGGTGATGAGCTCTACCACTGTCTGGAAGGAAATCACAAGAAACAGCCTTTTGAGGAATCTACAAGAAA  
TACTGAAGATAGTTTAAGATTTTCAGATTCTACTTCAAAGACTCCTCCTCAAGAAGAATTACCTACTCGAGTGTC  
ATCTCCTGTATTTGGAGCTACCTCTAGTATCAAAAGTGGTTTAGATTGAAATACAAGTTTGTCCCTTCTCTTTT  
ACAGCCTGGGAAAAAAAACATCTGAAAACACTCCCTTTTAGCAACACTTGTATATCTAGATTAGAAAAAACTAG  
ATCAAAATCTGAAGATAGTGCCCTTTTACACATCACAGTCTTGGGTCTGAAGTGAACAAGATCATTATCCAGTC  
ATCTAATAAACAGATACTTATAAATAAAAATATAAGTGAATCCCTAGGTGAACAGAATAGGACTGAGTACGGTAA  
AGATTCTAACTGATAAACATTTGGAGCCCCTGAAATCATTTGGGAGGCCGAACATCCAAAGGAAGAAAACCTGA  
GGAAGAAAGTGAACATGAAGTAAGCTGCCCCAAGCTTCTTTTGATAAAGAAAATGCTTTCCCTTTTCCAATGGA  
TAATCAGTTTTCCATGAATGGAGACTGTGTGATGGATAAACCTCTGGATCTGTCTGATCGATTTTCAGCTATTCA  
GCGTCAAGAGAAAAGCCAAGGAAGTGAGACTTCTAAAAACAAATTTAGGCAAGTGACTCTTTATGAGGCTTTGAA  
GACCATTCCAAAGGGCTTTTCTCAAGCCGTAAGGCCTCAGATGGCAACTGCACGTTGCCCAAAGATTCCCCAGG  
GGAGCCCTGTTTACAGGAATGCATCATCTTCAGCCCTTGAATAAATGCTCTCCAGACAATAAACCATCATTACA  
AATAAAAGAAGAAAATGCTGTCTTTAAATTCCTCTACGTCCACGTGAAAGTTTGGAGACTGAGAATGTTTTAGA  
TGACATAAAGAGTGCTGGTTCTCATGAGCCAATAAAAAATACAAACCAGGTCAGACCATGGAGGATGTGAACTTGC  
ATCAGTTCTTTCAGTTAAATCCATGTAGAATGGTAAAAATAAAGTCTCTACAAAACAACCAAGATGTATCCTTTGA  
AAATATCCAGTGGAGTATAGATCCGGGAGCAGACCTTTCTCAGTATAAAATGGATGTTACTGTAATAGATACAAA  
GGATGGCAGTCAGTCAAAATTAGGAGGAGAGACAGTGGACATGGACTGTACATTGGTTAGTGAAACCGTTCTCTT  
AAAAATGAAGAAGCAAGAGCAGAAGGGAGAAAAAAGTTCAAATGAAGAAAGAAAAATGAATGATAGCTTGGAAGA  
TATGTTTGATCGGACAACACATGAAGAGTATGAATCCTGTTTGGCAGACAGTTTCTCCCAAGCAGCAGATGAAGA  
GGAGGAATTGTCTACTGCCACAAAGAACTACACACTCATGGTGATAAACAAGACAAAGTCAAGCAGAAAGCGTT  
TGTGGAGCCGTATTTTAAAGGTGATGAAAGAGAGACTAGCTTGCAAAATTTTCTCATATTGAGGTGGTTTCGGAA  
AAAAGAGGAGAGAAGAAAACCTGCTTGGGCACACGTGTAAGGAATGTGAAATTTATTATGCAGATATGCCAGCAGA  
AGAAAGAGAAAAGAAATTGGCTTCTGCTCAAGACACCGATTCCGCTACATTCCACCCAACACACCAGAGAATTT  
TTGGGAAGTTGGTTTTCTTCCACTCAGACTTGATGGAAGAGGTTATATTAAGGAAGATCTTGATCCTTGTC  
TCGTCCAAAAGACGTCAGCCTTACAACGCAATATTTCTCCAAAAGGCAAGGAGCAGAAGACATAGACGTTGAA  
ACAGAAACAGAAGGATGAAGGACAGTTTTTTCTTCTTAGTTATTTATAGTTAAAGTTGGTACTAAACATTGATT  
TTTTTGATCTTCTGTAAATGGATTTATAAATCAGTTTTCTATTGAAAATGTTTGTGATATTTTGCTTTTGACCT  
TTAAACAATAAGGCGCTTTTCAATTTGCACTCTAACTAAGAGTTTTTACTTTATGTAGTGATACCTAATACAAT  
TTTGAAAATACAAAAA

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**FIGURE 304**

MNISGSSCGSPNSADTSSDFKDLWTKLKECHDREVQGLQVKVTKLKQERILDAQRLEEFFTKNQQLREQQKVLHE  
TIKVLEDRLRAGLCDRCVTEEHMRKKQQEFENIRQONLKLITELMNERNTLQEENKKLSEQLOQKIENDQQHQA  
AELECEEDVIPDSPITAFSFGVNRLRRKENPHVRYIEQHTKLEHSVCANEMRKVSKSSTHPQHNPNEILVA  
DTYDQSQSPMAKAHGTSSYTPDKSSFNLATVVAETLGLGVQEESETQGPMSPLGDELYHCLEGNHKKQPFEESTR  
NTEDSLRFSdstskTPPQEELPTRVSSPVFGATSSIKSGLDLNTSLSPSLLQPGKKHLKTLPFsntCISRLEKT  
RSKSEDSALFTHHSLGSEVNKIIIQSSNKQILINKNISESLGEQNRTEYGKDSNTDKHLEPLKSLGGRTSKRKKT  
EESEHEVSCPQASFDKENAFPFMDNQFSMNGDCVMDKPLDLSDRFSAIQRQEKsQGSETSKNKFRQVTLYEAL  
KTIPKGFSSSRKASDGNCTLPKDSPEGPCSQECIILQPLNKCSPDNKPSLQIKEENAVFKIPLRPRESLETENVL  
DDIKSAGSHEPIKIQTRSDHGGCELASVLQLNPCRGTGKIKSLQNNQDVSFENIQWSIDPGADLSQYKMDVTVIDT  
KDGSQSKLGGETVMDCTLVSETVLLKMKKQEQKGEKSSNEERKMNDsLEDmFDRtTHEEYESCLADsFSQAADe  
EEELSTATKKLHthgDKQDKVKQAFVEPYFKGDERETSLQNFPHIEVVRKKEERRKLLGHTCkeCEIYYADMPA  
EEREKKLASCSRHRFRYIPNTPENFWEVGFPSTQTCMERGYIKEDLDPCPRPKRRQPYNAIFSPKGKEQKT

**FIGURE 305**

GGGAAGTGCTGTTGGAGCCGCTGTGGTTGCTGTCCGCGGAGTGGAAGCGCGTGCTTTTGTGTTGTGTCCCTGGCCA  
**TGG**CGCTGCAGCTCTCCCGGGAGCAGGGAATCACCTGCGCGGGAGCGCCGAAATCGTGGCCGAGTTCTTCTCAT  
TCGGCATCAACAGCATTATATATCAGCGTGGCATATATCCATCTGAAACCTTTACTCGAGTGCAGAAATACGGAC  
TCACCTTGCTTGTAAGTACTGATCTTGAGCTCATAAAATACCTAAATAATGTGGTGGAACAAGTAAAGATTGGT  
TATACAAGTGTTCAAGTTCAGAACTGGTTGTAGTTATCTCAAATATTGAAAGTGGTGAGGTCCTGGAAAGATGGC  
AGTTTGATATTGAGTGTGACAAGACTGCAAAAGATGACAGTGCACCCAGAGAAAAGTCTCAGAAAGCTATCCAGG  
ATGAAATCCGTTCAAGTATCAGACAGATCACAGCTACGGTGACATTTCTGCCACTGTTGGAAGTTTCTTGTTTCTAT  
TTGATCTGCTGATTTATACAGACAAAGATTTGGTTGTACCTGAAAAATGGGAAGAGTCGGGACCACAGTTTATTA  
CCAATTCTGAGGAAGTCCGCCTTCGTTCAATTTACTACTACAATCCACAAAGTAAATAGCATGGTGGCCTACAAAA  
TTCCTGTCAATGAC**TGA**GGATGACATGAGGAAAATAATGTAATTGTAATTTTGAAATGTGGTTTTCTGAAATCA  
GGTCATCTATAGTTGATATGTTTTATTTTCAATTTGGTTAATTTTACATGGAGAAAACCAAAATGATACTTACTGAA  
CTGTGTGTAATTGTTCCCTTTATTTTTTTGGTACCTATTTGACTTACCATGGAGTTAACATCATGAATTTATTGCA  
CATTGTTCAAAAGGAACCAGGAGGTTTTTTTGTCAACATTGTGATGTATATTCCTTTGAAGATAGTAACTGTAGA  
TGAAAAAACTTGTGCTATAAAGCTAGATGCTTTTCTAAATCAGATGTTTTGGTCAAGTAGTTTGAAGTCAAGTATAG  
GTAGGGAGATATTTAAGTATAAAATACAACAAAGGAAGTCTAAATATTCAGAAATCTTTGTTAAGGTCCTGAAAGT  
AACTCATAATCTATAAACAATGAAATATTGCTGTATAGCTCCTTTTGACCTTCATTTTATGTATAGTTTTCCCTA  
TTGAATCAGTTTCCAATTTTGAATTTTATGTAACCTGAACCTATGAAGCAATGGATATTTGTACTGTTT  
AATGTTCTGTGATACAGAACTCTTAAAAATGTTTTTTCATGTGTTTTATAAAATCAAGTTTAAAGTGAAGTGAG  
GAAATAAAGTTAAGTTTGTTTTTAAAAA

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## FIGURE 306

MALQLSREQGITLRGSAEIVAEFFSFGINSILYQGIYPSETFTRVQKYGLTLLVTTDLELIKYLNNVVEQLKDW  
LYKCSVQKLVVVISNIESGEVLERWQFDIECDKTAKDDAPREKSQKAIQDEIRSVIRQITATVTFLPLEVSCS  
FDLLIYTDKDLVVPEKWEESGPQFITNSEEVRLRSFTTTIHKVNSMVAYKIPVND

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**FIGURE 307**

AGCCGCGGCCTCAACTAAAAGTGGCCATTGACCTTTCAAGCTTTTCGAGCAGTGATGCAATAGAATAGTATTTCAA  
AGAAAAATGCTTATCGAAATTTTGGATCCGGTTTTCCCGTGATTGTTAAGGGTTTCTTTTAAAAAGTAGGTCACA  
TTTCAAGTAGGTCATATTTGGGGGCGGGTGCGCAGACAAGGAGATGAGTTTCCACTAAGGCCAGGGGGCCTCCA  
ACGGGGTTGGAGGTGAGAATCCCAGGTAGGGTAGAGGTGCCGAGATCCTTCCGAATCCCAGCCCTGGGGCGTCAG  
CCCTGCAGGGAATGGCAGAGACACTCTCCGGACTGAGGGAACCGAGGCCAGTCACCAAGCCCCCTTCGGGCGCGC  
AGGCGATCAGTGGGTGACCGCGGTGCGAGGGACTTTGTTCATCCGTCCTCCAGGATCTGGGGAGAAAGAGCCCCA  
TCCCTTCTCTCTCTGCCACCATTTTCGGACACCCCGCAGGGACTCGTTTTGGGATTTCGCACTGACTTCAAGGAAGG  
ACGCGAACCCTTCTCTGACCCAGCTCGGGCGGCCACCTGTCTTTGCCGCGGTGACCCTTCTCTCT**ATG**ACCCTGC  
GGTGCCTTGAGCCCTCCGGGAATGGCGGGGAAGGGACGCGGAGCCAGTGGGGGACCGCGGGGTGGCGGAGGAGC  
CATCCCCGAGGCGGCGCGTCTGGCGAAGGCCCTGCGGGAGCTCGGTGAGACAGGATGGTACTGGGGAAAGTATGA  
CTGTTAATGAAGCCAAAGAGAAATTTAAAGAGGCACCAGAAGGAACTTTCTTGATTAGAGATAGCTCGCATTCAG  
ACTACCTACTAACAATATCTGTTAAACATCAGCTGGACCAACTAATCTTCGAATCGAATACCAAGACGGAAAAAT  
TCAGATTGGACTCTATCATATGTGTCAAATCCAAGCTTAAACAATTTGACAGTGTGGTTTCATCTGATCGACTACT  
ATGTTTCAGATGTGCAAGGATAAGCGGACAGGTCCAGAAGCCCCCGGAACGGCACTGTTACCTTTATCTGACCA  
AACCCTCTACAGTCTAGCACCATCTCTGCAGCATCTCTGTAGGCTCACCATTAAACAAATGTACCGGTGCCATCT  
GGGGACTGCCTTTACCAACAAGACTAAAAGATTACTTGGAAGAATATAAATTCCAGGTAT**TAA**ATGTTTTCTTTTT  
TTTAAACATGTCTCACATAGAGTATCTCCGAATGCAGCTATGTAAAAGAGAACCAAACTTGAGTGCTCTGGATA  
ACTATATGGAATGCTTTCTAAGAACAGCTGAAGCTAATCTAATTTAAATTTAACAGCTTGAAGAGGTAGCTAGGT  
GTTTAAAGTTCCTCCAGATACTTTTACCTGAGTGATGCTTCCCTTCCTAAGGCTGACCAAGACCTGTTGATCCTT  
TTAGATTAAAAATAAAATGTGCGATGTAAAGGCTGAAGTCGCGTTTTATCAGAATGCCTTGCCTTCTTAGGTTCT  
TTTCCATTATGTCAAAGGTCCAGGCTCCAGTAGGAGAGAAAGAACTCCTCATAGGAATACTGAAGAAGTGGGAAG  
GAACCAAGCTGACACAGGCCTCACTGCAATTTGATATGCCTGCTGATCAGAGTCTCTTGGGCATTATTTATATTTG  
CATTCTGATGTACCTAGGAGTTTTGTTAAACAGATGATGTATGTGAGTATTTATCCATTTTATGCAATTAACCA  
AATCAACCAAAAAAGTGACCATGAAGTCCTGTATTTGTCTTTTTACTACATGTAGGAACCTCTCATGTGAATGAG  
TACTGTAGTAATCCATTCTATGGGAGCCTTATTTTCAAGAAATATTTCAAAGTGGTGCAAATGGAAAAGACTTTCTC  
TTTTCTTTTAAAGCTAAAGACAAGAATATCATGCTATACAGGTGCAACTCAATCCCCGTTAATAAAAAACCAATGT  
AGGTATAGGCATTCTACCCCTTTGAAATAGCTGTGTCCCAACCTGTTGCCATTGATTTTTTGGAAATGGCTTTAGA  
AATATCCAAGTTGTCCTTGAATTGTCTAACCATGGACATAAACAGTTGTCTCCCTTCTACTGTGTAGAATACTTT  
GACTTAATTTTCTTCCAGATACAGGGGGATACCTGCCTGTTTTTCAAAGTGTTTATTTACTGCTGTTACTATTTG  
ATTAGAATGTATTAAATAAAAAAACCTGATTTC

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**FIGURE 308**

MTLRCLPSGNGGEGTRSQWGTAGSAEESPQAARLAKALRELGQTGWYWGSM TVNEAKEKLKEAPEGTFLIRDS  
SHSDYLLTISVKTSAGPTNLRIEYQDGKFR LDSIICVKSKLKQFDSVVHLIDYYVQMCKDKRTGPEAPRNGTVHL  
YLT KPLYTSAPSLQHL CRLTINKCTGAIWGLPLPTRLKDYLEEYKFQV



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**FIGURE 309**

AGCCGCGGCCTCAACTAAAAGTGGCCATTGACCTTTCAAGCTTTTCGAGCAGTGATGCAATAGAATAGTATTTCAA  
AGAAAAATGCTTATCGAAATTTTGGATCCGGTTTTCCCGTGATTGTTAAGGGTTTCTTTTAAAAAGTAGGTCACA  
TTTCAAGTAGGTCATATTTGCGGGGCGGGTGCGCAGACAAGGAGATGAGTTTCCACTAAGGCCAGGGGGCCTCCA  
ACGGGGTTGGAGGTGAGAATCCCAGGTAGGGTAGAGGTGCCGAGATCCTTCCGAATCCCAGCCCTGGGGCGTCAG  
CCCTGCAGGGAATGGCAGAGACACTCTCCGGACTGAGGGAACCGAGGCCAGTCACCAAGCCCCTTCCGGGCGCGC  
AGGCGATCAGTGGGTGACCGCGGCTGCGAGGGACTTTGTCATCCGTCTCCAGGATCTGGGGAGAAAGAGCCCCA  
TCCCTTCTCTCTGCCACCATTTCGGACACCCCGCAGGGACTCGTTTTGGGATTGCGACTGACTTCAAGGAAGG  
ACGCGAACCCTTCTCTGACCCAGCTCGGGCGGCCACCTGTCTTTGCCGCGGTGACCCTTCTCTC**ATG**ACCCTGC  
GGTGCTTGAGCCCTCCGGGAATGGCGGGGAAGGGACGCGGAGCCAGTGGGGGACCGCGGGGTGCGCGGAGGAGC  
CATCCCCGAGGCGGCGCGTCTGGCGAAGGCCCTGCGGGAGCTCGGTGAGACAGGATGGTACTGGGGAAGTATGA  
CTGTTAATGAAGCCAAAGAGAAATTTAAAGAGGCACCAGAAGGAACTTTCTTGATTAGAGATAGCTCGCATTAG  
ACTACCTACTAACAATATCTGTTAAACATCAGCTGGACCAACTAATCTTCGAATCGAATACCAAGACGGAAAAAT  
TCAGATTGGACTCTATCATATGTGTCAAATCCAAGCTTAAACAATTTGACAGTGTGGTTCATCTGATCGACTACT  
ATGTTTCAAGTGTGCAAGGATAAGCGGACAGGTCCAGAAGCCCCCGGAACGGCACTGTTTACCTTTATCTGACCA  
AACCCTCTACACGTCAGCACCATCTCTGCAGCATCTCTGTAGGCTCACCATTAAACAAATGTACCGGTGCCATCT  
GGGGACTGCCTTTACCAACAAGACTAAAAGATTACTTGAAGAATATAAATTTCCAGGTAT**TAA**ATGTTTCTCTTTT  
TTTAAACATGTCTCACATAGAGTATCTCCGAATGCAGCTATGTAAAAGAGAACCAAACTTGAGTGCTCTGGATA  
ACTATATGGAATGCTTTCTAAGAACAGCTGAAGCTAATCTAATTTAAATTTAACAGCTTGAAGAGGTAGCTAGGT  
GTTTAAAGTTCCTCCAGATACTTTTACCTGAGTGATGCTTCCCTTCCTAAGGCTGACCAAGACCTGTTGATCCTT  
TTAGATTAAAAATAAAATGTGCGATGTAAAGGCTGAAGTCGCTTTTATCAGAATGCCTTGCCTTCTTAGGTTCT  
TTTCCATTATGTCAAAGGTCCAGGCTCCAGTAGGAGAGAAAGAACTCCTCATAGGAATACTGAAGAAGTGGGAAG  
GAACCAAGCTGACACAGGCCTCACTGCAATTTGATATGCCTGCTGATCAGAGTCTCTTGGGCATTTTATATTTTG  
CATTCTGATGTACCTAGGAGTTTTGTAAACAGATGATGTATGTGAGTATTTATCCATTTTATGCAATTAACCA  
AATCAACCAAAAAAAGTGACCATGAAGTCCTGTATTTGTCTTTTACTACATGTAGGAACCTCATGTGAATGAG  
TACTGTAGTAATCCATTCTATGGGAGCCTTATTTTCAAAAATATTTCAAAGTGGTGCAAATGGAAAAGACTTTCTC  
TTTTCTTTTAAAGCTAAAGACAAGAATATCATGCTATACAGGTGCAACTCAATCCCCGTTAATAAAAAACCAATGT  
AGGTATAGGCATTCTACCCTTTGAAATAGCTGTGTCCCAACCTGTTGCCATTGATTTTTTGGAAATGGCTTTAGA  
AATATCCAAGTTGTCCTTGAATTGTCTAACCATGGACATAAACAGTTGTCTCCCTTCTACTGTGTAGAATACTTT  
GACTTAATTTTCTTCCAGATACAGGGGGATACCTGCCTGTTTTTCAAAGTGTATTTTACTGCTGTTACTATTTG  
ATTAGAATGTATTAAATAAAAAAACCTGATTTCT

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**FIGURE 310**

MTLRCLEPSGNGGEGTRSQWG TAGSAEESPQAARLAKALRELGQTGWYWSMTVNEAKEKLKEAPEGTFLIRDS  
SHSDYLLTISVKTSAGPTNLR IEYQDGKFR LDSIICVKSKLKQFDSVH LIDYYVQMCKDKRTGPEAPRNGTVHL  
YLT KPLYTSAPSLQHL CRLTINKCTGAIWGLPLPTRLKDYLEEYKFQV

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**FIGURE 311**

GGGTGAGCAAAGGGGCGGGTCCCTGGCTGCTGTGGCCTCCCCTGACCCCTCCCCCGCTGCTGGGGTCCTCGGC  
CAAGCCCCCTTCTCACTGGACTGAGAC**ATG**AGGCTGAGCTGGTTCCGGGTCCTGACAGTACTGTCCATCTGCCTG  
AGCGCCGTGGCCACGGCCACGGGGGCCGAGGGCAAAAGGAAGCTGCAGATCGGGGTCAAGAAGCGGGTGGACCAC  
TGTCCCATCAAATCGCGCAAAGGGGATGTCCTGCACATGCACTACACGGGGAAGCTGGAAGATGGGACAGAGTTT  
GACAGCAGCCTGCCCCAGAACCAGCCCTTTGTCTTCTCCCTTGGCACAGGCCAGGTCATCAAGGGCTGGGACCAG  
GGGCTGCTGGGGATGTGTGAGGGGGAAAAGCGCAAGCTGGTGATCCCATCCGAGCTAGGGTATGGAGAGCGGGGA  
GCTCCCCCAAAGATTCCAGGCGGTGCAACCCTGGTGTTTCGAGGTGGAGCTGCTCAAAATAGAGCGACGAAGTGA  
CTG**TAA**ACCAGACTGGGGAGGGGCAGGGGGAGAGGCCCCCATCAGGGACCAGACTGTTCCAAAAAAAAAACAAAA  
ACAAAAACAAACAAAAAACACTTAAAAGCCCAAGGAGTAAGCCTGTGTGTTTGTGGGCCCTGAGAGACTCAGAG  
ACCTCAGCTCCAGCATACCCACACCTTCTCCTTTCCC

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**FIGURE 312**

MRLSWFRVLTVLSICLSAVATATGAEGKRKLQIGVKRVDHCP IKS RKG DVLHMYTGKLEDGTEFDSSLPQNP  
FVFSLGTGQVIKGWDQGLGMCEGEKRKLVIPSELGYGERGAPPKIPGGATLVFEVELLKIERRTEL

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**FIGURE 313**

ACTCAGTGTTTCGCGGGAGCCGCACCTACACCAGCCAACCCAGATCCCCGAGGTCCGACAGCGCCCGGCCAGATCC  
CCACGCCTGCCAGGAGCAAGCCGAGAGCCAGCCGGCCGGCGCACTCCGACTCCGAGCAGTCTCTGTCTTCGACC  
CGAGCCCCGCGCCCTTTCCGGGACCCCTGCCCCGCGGGCAGCGCTGCCAACCTGCCGGCC**ATG**GAGACCCCGTCC  
CAGCGGGCGCGCCACCCGCAGCGGGGCGCAGGCCAGTCCACTCCGCTGTGCGCCACCCGCATCACCCGGCTGCAG  
GAGAAGGAGGACCTGCAGGAGCTCAATGATCGCTTGGCGGTCTACATCGACCGTGTGCGCTCGCTGGAAACGGAG  
AACGCAGGGCTGCGCCTTCGCATCACCGAGTCTGAAGAGGTGGTCAGCCGCGAGGTGTCCGGCATCAAGGCCGCC  
TACGAGGCCGAGCTCGGGGATGCCGCAAGACCCCTTGA CT CAGTAGCCAAGGAGCGCGCCCGCTGCAGCTGGAG  
CTGAGCAAAGTGCGTGAGGAGTTTAAGGAGCTGAAAGCGCGCAATACCAAGAAGGAGGGTGACCTGATAGCTGCT  
CAGGCTCGGCTGAAGGACCTGGAGGCTCTGCTGAACTCCAAGGAGGCCGCACTGAGCACTGCTCTCAGTGAGAAG  
CGCACGCTGGAGGGCGAGCTGCATGATCTGCGGGGCCAGGTGGCCAAGCTTGAGGCAGCCCTAGGTGAGGCCAAG  
AAGCAACTTCAGGATGAGATGCTGCGGCGGGTGGATGCTGAGAACAGGCTGCAGACCATGAAGGAGGAAGTGGAC  
TTCCAGAAGAACATCTACAGTGAGGAGCTGCGTGAGACCAAGCGCCGTCATGAGACCCGACTGGTGGAGATTGAC  
AATGGGAAGCAGCGTGAGTTTGAGAGCCGGCTGGCGGATGCGCTGCAGGAAGTGCGGGGCCAGCATGAGGACCAG  
GTGGAGCAGTATAAGAAGGAGCTGGAGAAGACTTATTCTGCCAAGCTGGACAATGCCAGGCAGTCTGCTGAGAGG  
AACAGCAACCTGGTGGGGGCTGCCACGAGGAGCTGCAGCAGTCGCGCATCCGCATCGACAGCCTCTCTGCCCAG  
CTCAGCCAGCTCCAGAAGCAGCTGGCAGCCAAGGAGGCGAAGCTTCGAGACCTGGAGGACTCACTGGCCCCGTGAG  
CGGGACACCAGCCGGCGGCTGCTGGCGGAAAAGGAGCGGGAGATGGCCGAGATGCGGGCAAGGATGCAGCAGCAG  
CTGGACGAGTACCAGGAGCTTCTGGACATCAAGCTGGCCCTGGACATGGAGATCCACGCCTACCGCAAGCTCTTG  
GAGGGCGAGGAGGAGAGGCTACGCCTGTCCCCAGCCCTACCTCGCAGCGCAGCCGTGGCCGTGCTTCCTCTCAC  
TCATCCCAGACACAGGGTGGGGGCGCGTGGCCGTGGAGGAGGTGGATGAGGAGGGCAAGTTTGTCCGGCTGCGC  
AACAAGTCCAATGAGGACCAGTCCATGGGCAATTGGCAGATCAAGCGCCAGAATGGAGATGATCCCTTGCTGACT  
TACCGGTTCCCAACAAAGTTACCCCTGAAGGCTGGGCAGGTGGTGACGATCTGGGCTGCAGGAGCTGGGGCCACC  
CACAGCCCCCTACCGACCTGGTGTGGAAGGCACAGAACACCTGGGGCTGCGGGAACAGCCTGCGTACGGCTCTC  
ATCAACTCCACTGGGGAAGAAGTGGCCATGCGCAAGCTGGTGCCTCAGTGACTGTGGTTGAGGACGACGAGGAT  
GAGGATGGAGATGACCTGCTCCATCACCACCATGTGAGTGGTAGCCCGCGCT**TGA**GGCCGAGCCTGCACTGGGGCC  
ACCCAGCCAGGCCTGGGGGCAGCCTCTCCCCAGCCTCCCCGTGCCAAAAATCTTTTCATTAAAGAATGTTTGGA  
CTTT

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**FIGURE 314**

METPSQRRATRSGAQASSTPLSPTRITRLQEKEDLQELNDRLAVYIDRVRSLETENAGLRLRITESEEVVSREVS  
GIKAAYEAELGDARKTLDSVAKERARLQLELSKVREEFKELKARNTKKEGDLIAAQARLKDLEALLNSKEAALST  
ALSEKRTLEGELHDLRGQVAKLEAALGEAKKQLQDEMLRRVDAENRLQTMKEELDFQKNIYSEELRETKRRHETR  
LVEIDNGKQREFESRLADALQELRAQHEDQVEQYKKELEKTYSAKLDNARQSAERNSNLVGAAHEELQQSRIRID  
SLSAQLSQLQQLAAKEAKLRDLEDLARERDTSRLLAEKEREMAEMRARMQQQLDEYQELLDIKLALDMEIHA  
YRKLEGEERLRLSPSPTSQRSRGRASSHSSQTQGGGSVTKKRKLESTESRSSFSQHARTSGRVAVEEVDEEGK  
FVRLRNKSNEDQSMGNWQIKRQNGDDPLLTYRFPKFTLKAGQVVTIWAAGAGATHSPPTDLVWKAQNTWCGNS  
LRTALINSTGEEVAMRKLVRSVTVVEDEDEDGDDLLHHHHVSGSRR

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**FIGURE 315**

CCAAGCCCATGAGGGCCGCGCGCCCGGCCGCGGTGCTGACGAGACGGAGCTCCTGGCCCCCGAGGAGGAGCAGA  
GGATCAATGCGGTTCAAGAATCGATTCCAGCGGTTTCATGAACCATCGAGCTCCAGCCAATGGCCGCTACAAGCCA  
ACTTGCTATGAACATGCTGCTAACTGTTACACACACGCATTCTCATTGTTCCGGCCATCGTGGGCAGTGCCCTC  
CTCCATCGGCTGTCTGATGACTGCTGGGAAAAGATAACAGCATGGATTTATGGAATGGGACTCTGTGCCCTCTTC  
ATCGCTTCTACAGTATTTACATTGTATCATGAAAAAGAGCCACTTAAGGACAGCGGAGCATTGTTTTACATG  
TGTGATAGAATGGTTATCTATTTCTTCATTGCTGCTTCTTATGCTCCATGGTTAAATCTTCGTGAACCTGGACCC  
CTGGCATCTCATATGCGTTGGTTTATCTGGCTCATGGCAGCTGGAGGAACCATTATGTATTTCTCTACCATGAA  
AAATATAAGGTGGTTGAACTCTTTTTCTATCTCACAATGGGATTCTCTCCAGCCTTGGTGGTGACATCAATGAAC  
AACACCGATGGACTTCAGGAACCTGCCTGTGGGGGCTTAATTTATTGCTTGGGAGTTGTGTTCTTCAAGAGTGAT  
GGCATCATTCCATTGCCCACGCCATCTGGCACCTGTTTGTGGCCACGGCAGCTGCAGTGCATTACTACGCCATT  
TGGAAATACCTTTACCGAAGTCCTACGGACTTTATGCGGCATTTATGACCAATCTGTACTAATTCTCCAAACCAG  
TATTATTTCAATTATGGCAGTTGGGAGTGGGGTGAGAGCTAAACATTCACAGGGCAAAGAAAAAAATAACTGC  
ACTGACTTTATATCTTTTGAATATAATTACTGTGAAAGTATAAAGGCTGTGTTCTGGAATTTCTGCCTCACAGC  
AAATAAATAAGGTAGTGAATTAATTATTCATTCCATTCCACTATCATGAAGGACTCTGAATAGACTTGGCCAAC  
GATGTTTACAAACCAGACTTTTATATTTTAAATTTTACAGATTTTACTACATGATTTTTCTAAATTACTATGTCAG  
GTTGTAAAAGTCAGTGCAATAACAAACCTTCCTTTTAAAGAAGAAAATGTTTCTATTACTTTCCCATTCACTAG  
GTAAAGAATCATGGACAGAACTTACACTACTTTTTACCATGTTTCATCTTGGCATAACATGGTTCTTTTTTAAAT  
AGAACTTTAGTTTTTTGTAAATTTTAAAAAATATTTTCATTGATATGCATCTCTGCAGGTCCTCATTTCATGTT  
GTAAATTTTGGAGCAAGCAGTCAACATTCCACAAACGAACAAACATTATACCTCTTCTGATAGTTTTATTAAGC  
ATGGAGAAAATTGCCAATTTTAAAACTGCAGTTTTCCAACTTTCTGCCAACCTCTTACTCTGAATTCAGTGC  
TGCTTTGGGACATATACTTGACCTAGCTTGGTTTACCAGTGATGGAAAAGTATTTTGATATCATTAACTTTTTCA  
AAAGATCCAACCTTTTTCTCTATGCCTTTGCCACATTCTCTTCAGGGTCTCTTTCCACAGCGGATAAATGTTTTT  
CTGTATTATGACAGTATTGTTGTGATGGCCATCTGCTGGAACTCCTGAAGAGCATTATGTATTACAGTGAGCAG  
TTGTATTGCCGTGTTTGGTGCCCAATGGTTAAGTCATTGTCACTTAGCTTTATATTGTCAGTTTGATATTTATTTT  
AAATTGTGGAAC TAGATGCATAAATTCACATTTCTGCCTTTCCCTTGCATCTTCTCATATATTGTGTTTTTTTT  
TTTTTCTTAGAAAAAATATTTAAAGCATGTTTGTGACAGGTAGAACTCATGTATCTGTAGTCCATGAGTTATATC  
CTGGCTCAGTGGAGTGATATTTATGTATTATTTTACTTTTCTCTCAGTGTCTTATATTAAGATTAACATGTTGT  
TAATAGTTGCTTTGTTGATTAATCTCTCTTGTGGTGTTTTAAATAAATGAAATAGGCTTGCCCTTTAGATCGGGTG  
CTGATATTGCCTGTTTCTTAGTAATGGGCTGATCAAAATGATCAGTGGAAATCTTGGTTTGATGATAACCTTATTA  
ATTGAAATTTTTTACTGATGTGGCTTTAAAGAGGTTTATTTTGTATATGTTTAGAACTCTCTGATTTTGATGAA  
TTATATGGGAGTGAGAAACAGAAGAAGTGGTATTTGCTGGCGAGTTAAATAGGCAAGGTACCCAGTGATAACACC  
AACCAAACCACTCCTATCTGCATGATTCTGAACATCTGGATGCCTGTTGTTTTACTGTGTATATTTTATTTTTAA  
TATATTAACCTTTGTGGATTCAATTAAGGTCTACTCAAAAGTAACACTGTCCAAACCACTAATATGTATGTAAAAA  
TTGTGCTGTATACTACAATAAAGTTGTTACTTGGATTGTTTCCAAAAA

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# **FIGURE 316**

MRFKNRFQRFMNHRA PANGRYKPTCYEHAANCYTHAFLIVPAIVGSALLHRLSDDCWEKITAWIYGMGLCALFIA  
STVFHIVSWKKSHLRTAEHCFHMC DRMVIYFFIAASYAPWLNLR ELGPLASHMRWFIWLMAAGGTIYVFLYHEKY  
KVVELFFYLTMGFSPALVVTSMNNTDGLQELACGGLIYCLGVVFFKSDGIIPFAHAIWHLFVATAAAVHYIAWK  
YLYRSPTDFMRHL



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**FIGURE 317A**

GGGGGAGGGAAACGGAGCAGTAACAAGTATCCCAGAGGGTGCTGCTGAGGCGACG**ATG**CCGAGGGGCCGAGGA  
AGCCCGAGGCCACCCTCCCGGGCAGGACGATGGCGGGGGGACCACGAGCCCGTCCCTTCCCTGAGAGGCCCTCC  
TACCACCGCCGTCCCATGCCCCGCGACGACCCCCAGGCCGAACCCAGGCCCGGGCCGGCCACAGCCCCGGG  
CCTCGCGGCTGCCGCCGAGCCGACAAATTGGAGCCGCCGCGCGAGCTCAGGAAGCGCGGGGAGGCGGCCCTCCGG  
CTCCGGTGAGAGCTGCAGGAGCAGGCGGGCTGCGAGGCGCCCGAAGCCGCGGCGCCACGAGAGAGACCAGCTCG  
GCTGAGCGCCCGCAGTACTCCCGGCAAGTGCACGAGTGCGTGTGGCAGTCTTACTGCGGCTACCTCACCTGGCA  
CAGCGGCCTGGCCGCCTTCCCAGCCTACTGCAGCCCCAGCCCTCCCCGCAAAGCTTCCCTTCGGGCGGCGCTGC  
AGTCCCCCAGGCCGCGGCGCCGCCGCCCGCCCGCAGCTGGGCTATTACAACCCCTTCTACTTCTTGAGCCCCGGGGC  
CGCGGGGCTGACCCGCGGACAGCTGCCGGCATCAGCACCCCTGCTCCAGTCGCGGGCCTGGGACCCCGGGCTCC  
TCACGTGCAGGCGTCCGTCCGGGCCACTCCAGTGACGAGGGTAGGATCCGCAGCCCTTCGCGAAGCCCGAGCGA  
GACCGGGGCGACAGGCAGGCAGAGAATATGTTATTCCATCCTTGGCCACAGATTTATGGCAGAGATGGTGGATTT  
CTTTATTCTCTTTTATAAAAGCAACCATTGTCTTAAGCATTATGCACCTCAGTGGGATAAAGGATATCTCTAA  
GTTTGCTATGCATTATATAATAGAAGAAATAGATGAAGACACATCAATGGAAGACTTGAGAAAATGATGGTGT  
GGCACTTATATACAGATTATTAGTTTGTCTTATGAGATAATTTGCATTTGGGGAGCAGGTGGAGCTACCCCAAG  
GAAGTTCTTGCTGGGGCTTCGAGTTGTGACATGTGATACATCAGTGCTTATTGCACCAAGTCGGGTTTTAGTGAT  
TCCTTCCCTCAAATGTTAGCATTACAACGTCCACTATCCGAGCTTTGATCAAGAATTTTTCAATTGCTTCTTTTT  
CCCTGCTTTCATCACACTGCTGTTTTTTCAGCATAATCGAACAGCTTATGACATTGTAGCAGGAACCAATTGTGGT  
AAAAAGAAATGGGGTCAGAT**TGAT**GCCCCCAAACCCCTGATTTCCACACACTAAGACTAAATTATGTATCAAGGC  
CATCAGTATCCCTGGGTTACACTAATTGATGATTTAGAAATTAAGCAGTCACTCCAGTGTGATGCAGGTGACTA  
CTCTGAAAGTATTGATTATACTTGAATGCCAAAGAACTTGTCAGAAAGAAAACCTGTTAAATTCAAGTATTAA  
ATTTTTAGATCAAAAAGGCAAATGATTTTTATAACAATGGACAATATATACTTTCTTAAGATCTAAGGTACTTTC  
TTAAGATCTAAGAATTTGCTGAAAGCATTTTTCAGCTTTGAAATCTCCAAATGAACTTTAAAATTTATTTTGGTT  
TATCCCAAAATAATGGAAATGTCCAGTTGTGTTTTGTAAACACCTATGTAACCTCATCTTTTAGTTTACACTTCC  
TGGGGAAATTTGCTTTGGTGTGTTAGAGGAGGGAATGAGAACACAAATTTGGATAATCCACTGTCTCCCATCCCAGG  
AGGTGGTGAGTTGGCTACAAGAGAAAGGACAAAGTGAGGCAGGCCTAGCAGTTCCCTTACCTGAAGTTTTCAAAT  
CCATACTGCAGTTCCCTCTCGTAATGATGTAACCTTTACAACCTATTCTTAATGCTTGAACATGTATTTAGGGGCAA  
GTTTTCTCATGATGATGAAAAAGTATCAAGTCATATTGCTATGTTAATTGGTTTTTTTTTTTTTAAAAGGTAAGTTAG  
TGATTACTGTTAATGGTGGGGAGTAAGTTTTCACTGTAAATGAACTTATAATTTATGTGCAAGTGTTTTCAGT  
GCCCTGAATCAAACCTATAAATGTGGGGAGAAATCACCTCCATCAAACAGTTGCATATTTACTGTAAAAGTATTCC  
CAGTATGTGTGCAGCATGAAGAAAGTATTAGTGCTTCTCAGTGTTCTCAGTGTAATTTCTATTTATATACAGCAT  
ATTCACATACTACTTTCCTTATATTTTATATAGTTCTATGACTGTTGAAACATCAAGGAGTTAAAAAATCTTAA  
TATTTTCATGATTAACTCTAAGTACTATTAATAGCTTGCAGAAATATTAGCAATTTTCCCATTATGGACTATCTCTC  
TAAAGCAAGAGAGACTAGCATTCCCAGACATCATTCTAGGGTCTTTAAGCTCATTTTGGGTCTGCTAAAGTTTG  
GGGAAATGTTACGCAAAGTGATACTGTGTATGTTGCCATTTTGCTTTATTCTTCTGTTGAAGCAAAATTTGGG  
GTTTTATTATGTGTGTGTGCTTTTCCCTAGATGTCCAGTTAGCTGTGCTGAGATATACCTGTACTATTTATGGTT  
TAAGTTTTGATTCTTAGGTATTTTCTCCAGCTCTGACATTGTTTTCCAAAGACACACTAAACTGCATTGCACAGT  
TCAAAATTTGATTACTTAAGGGATCAATCTAGGTGGTGTCTTGGTCTTAAATTTAACAGCAAACACAGCACATA  
TCTATTATCACTATATTAATTTTCAAAGGTTTTCTGTGACGTTTAAACTGTGACAACAGATATTCACATTTGA  
TTATAGAACTTAATGICTATTAATAATTTTAGTACAAAATTTTATAAACCCTGTTTTTCAAATAAGTTTATGT  
CAAATCCAGCTTCCCAGAAACACTAATAATTAAGTACATCAATGTACTAAATAAATCATTTCAGTTGCACCCATGG  
GGAAGATTGTGTTACTGCCCTTCACAGTGAAAAAAGAAAAATCTTTCAATTTTTAAATTAGGAGATGTTACGTA  
ACTTGGCACTTTAGTAGTGATACACTAGCATTAGTTTATACACCACTTTTGCCGCTGGGGATTCAAGTTGAAAT  
GTCCCTCAATCATATAGGTCTGGAATACATCTTTCATTACATAATTTCTGCTCAGATAATTGAATAGTTTGCCATC  
GAGATTATTTTCATTTATACTATAAAACAAAAGCAAACCTAGTCCAGTTTAAATTTTTGTACTTAGAATATTGCAC  
ATTTTCTATATATGAGTTATTCAGATTAGTATCTATGTAGGTTTCAGTCAGATCCAACCATGGATTTCGAGGTATTA  
TACTGTATAACCTTACAAAATACATAGAAGTATTATTTGCCCTTCATAATAGAACCAAGAGTCTGTTTCAATTTA  
TGAATTCAGTATTTGCACCGAGATTTTGATTCCCAAAGTTTGGAAGAAAAATGACAAAACAACGAGGGAAGAAGGA  
ACCAGACCTTAGTGCCACATATTTTTCTCTTGGGGTTGTAAGGTAGTCTCCTGCTTTCAGAACACTTTATTATA

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**FIGURE 317B**

TTTCACTTATAGACCTGATTTTCTGTGTCAAAGTATAATTCTCATGCTGAAGCTGTAGCCTAAAAAGCCAAAAGA  
AAGTTGTCTTCATTGTACAAACATATTCATCACTTTAACAATAAGGGAACAAAATTTAGTATTCAAGCTGAGTGA  
GAATACTGGTTCAATGGACATGTCCCTAAGATAAACAGAATTGGCAGTTAATTTAGGCGTCTAGAAAATCTCAG  
TTCCCAACAGTAAAATTATCCTGAGTAGCTAATGCACCTTGAGAAAAATCTGGCATACTGAATAAGTAACATTAA  
CTTGGGAGCCAAGAGCTGGGTAAAGCCTTACCTTTAGACTACTCTGTGACTACAGAAATAAAGCCAGCACTTTTGG  
AACTAATAAGCCTTCACTTGTCACTATCATAAAGAGTATTGCCCACTGAACCTTTGCTCCCACTGGTTTAATAGT  
TACTTATTTCTGCCTAAGCACTCACCTTCCGATTTTACCCAAGTATATATATAGGATAGAAAAAATGCATTATA  
TTTGAGAGCTCACTTCGCCCAGATTACAAAATGAGTGTTTTTAGATTCAAGTGACGGTAAAAGGATTTGTTCCCT  
TCAGTGACTTGAGTGTTTTAGTTATGCATAAGTATTTCTAGCAAAGGAAGGGTAGAAAGGAATTGAAAATTAATT  
TACACTAGTTGCTACTTGGAATAAAGGGCTTTTTGAGGGGGGTATGGATATTAAATGTTTTCGTTATATACTTA  
TCCCTATTAAAAACAGGCAGTTGTTTCTTTGAATATGCCTAAATAACAGTATTCTTAAAAATCTGACAGACAAGTAA  
CATGTCAATTACTTGATATTCCTTGTCTCCAGTACCACAGGCCACTCTTGACATCCCATGTTTGCCTGGATAAAG  
TTCCCTCATTTCAAACAGTATACATACTTCTTTGCAGTTCATTATAGTAAGGCTTAACCTGTAAACAGTATCTGAT  
GGCCACCTATAAATAAAATTCAGCATTCTATTTTTAATAATTTGTATGCCACCAATTTGTATTATTTGTCTCAA  
TAAATACTTAGTCATCGATGCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 318**

MAEGPEEARGHPPGQDDGGGDHEPVPSLRGPPTTAVPCPRDDPQAEFQAPGRPTAPGLAAAAADKLEPPRELK  
RGEAASGSGAELQEQAGCEAPEAAAPRERPARLSAREYSRQVHEWLWQSYCGYLTWHSGLAAFPAYCSPQSPQS  
FPSGGAAVPQAAAPPPQLGYYNPFYFLSPGAAGDPRTAAGISTPAPVAGLGPRAPHVQASVRATPVTRVGSAA  
PSRSPSETGRQAGREYVIPSLAHRFMAEMVDFILFFIKATIVLSIMHLSGIKDISKFAMHYIEEIDEDTSMED  
LQKMMVVALIYRLLVCFYEIICIWGAGGATPGKFLGLRVVTCDTSVLIAPSRVLVIPSSNVSITTSTIRALIKN  
FSIASFFPAFITLLFFQHNRTAYDIVAGTIVVKNRNGVR

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**FIGURE 319A**

GGTAATGCTTAACTTCCTGCCTCTTTTGCTCTACAGGAAAGAAGAAACAAGAAAGTGAAGTCCACTAG  
GGATATTGTTCTTTTTCTGAACTTGGAAGTACTCCCTCTGGTGGTGGATTTTTTCAGGGTATTTCTTTTCTCTGA  
AATCTCCACCCGTCCTCTTTTGGGCAGTACCGAAGTACAGGCAGCTAAGAAAGTACATACTTCTAAGGGAGACCT  
ACCTAGGGAGCCTCTTGTGGCCACAACTTGCTGGCAGGGGACAGTTGCAGAAGTTAGCCTCTGAAAGGAATTT  
GTTTATTTTCATGCAAGTCTAGCCATGATAGGTGTTTAGAGAAAAGTTCTTCGTATCTTCTCAGCCTGAACACAG  
TGCCATGTTGGTCTCTACTGCAGCTTCTCCTTCACTGATTAAAGAAACCACCACTGGTTACTATAAAGACATAGT  
AGAAAATATTTGCGGTAGAGAGAAAAGTGAATTCACCATTATGTCTGAGAGGTCCCATATTTTCAGATCAATC  
GCCTCTCTCCAGTAAAGGAAAGCACTAGAAGAGTCTGAGAGCTCACAATAATTTCTCCGCCACTTGCCAGGC  
AATCAGAGATTATGTCAATTCTCTGTTGGTCCAGGGTGGGGTAGGTAGTTTGCTGGAAGTCTAAGTCTATGCC  
CCCCTGGATGTAGAAAACATACAGAAGAGAATTGATCAGTCTAAGTTTCAAGAACTGAATTCCTGTCTCTCTCC  
AAGAAAAGTCCCTAGACTGAGTGAGAAGTCACTGGAGGAAAGGGATTAGGTTTCTTTGTGGCATTTCAGAACAT  
ACCTGGATCCGAAGTATGTCTTTCTTTTGCCAAAAGTGTGTCTCTCATTCACTCACTACCTTAGGTCTAGAAGT  
GGCTAAGCAATCAGCATGATAAAATAGATGCCTCAGAAGTATCTTTTCCCTTCCATGAATCTATTTTAAAAGT  
AATTGAAGAAGTGGCAGCAAGTTGACAGGCAGCTGCCTTCACTGGCATGCAATATCCAGTTTCTTCCAGGGA  
GGCAACACAGATATTATCAGTTCCAAAAGTAGATGATGAAATCCTAGGGTTTATTTCTGAAGCCACTCCACTAGG  
AGGTATTCAAGCAGCCTCCACTGAGTCTTGCAATCAGCAGTTGGACTTAGCACTCTGTAGAGCATATGAAGCTGC  
AGCATCAGCATTGCAGATTGCAACTCACACTGCCTTTGTAGCTAAGGCTATGCAGGCAGACATTAGTGAAGCTGC  
ACAGATTCTTAGCTCAGATCCTAGTCGTACCCACCAAGCGCTTGGGATTCTGAGCAAAACATATGATGCAGCCTC  
ATATATTTGTGAAGCTGCATTTGATGAAGTGAAGATGGCTGCCCATACCATGGGAAATGCCACTGTAGGTCTGTCG  
ATACCTCTGGCTGAAGGATTGCAAAATTAATTTAGCTTCTAAGAATAAGCTGGCTTCCACTCCCTTTAAAGGTGG  
AACATTATTTGGAGGAGAAGTATGCAAAGTAATTAAGGCGTGGAATAAACACTAGTAAAATTAAGGACAAAA  
AGACATCTATCTTATCTTTTCAAGTACTTTATGCCAACATTTTCTTTTCTGTTAAGGTTGTTTTAGTTTCCAGATA  
GGGCTAATTACAAAATGTTAAGCTTCTACCCATCAAATTACAGTATAAAAGTAATTGCCTGTGTAGAACTACTTG  
TCTTTTCTAAAGATTTGCGTAGATAGGAAGCCTGGTACAAACAATTTAACGCTTTCTAGATCACATATTAGTCTC  
TAAGTTGTTTTCTGTTTCTGCTTTTACTTATGTTTTTACAATTTCTCCAAAAGTAAAGAAATTTCTAATTAGGATAT  
AAGGAGTATTTACTGTTCAATAGAATAATATGCATCCTCCTTTTATACCTAGGACAGAATTAACATTTGTTACAC  
ATTGAGAACAGTATGTTGTTCTTTTGTACTTTTATCTCAGTATCTTTTACGTTCCATAACTTGTCCATATT  
TTTGCTCATATTTTCTTACTTTTCTTTGTTATTTTATTCATGTCTGCAACATCAATCATAGTAGTCTAGATCAATG  
CAACTCAAAGCACCAGTCTACAAAGTGTACTTATCCACAGGCAAGATAAGCATGCACAAGAATTTAAATCTAGA  
GATACTTTTTAGGTCAATGACAGGATTTGATTTTTTAGCAAAATTTTATTAATAGCTAAAGCAATGTATTGATTT  
ACACTCTGATGCAAGTAATTTATCTCTTCACTGACTGGTAGCAACCAATTCATGGACCAGTACCATGGACCACAC  
TTTGAGAAACACTTCTTTGGATAATAATAGATATCCTGGGATAGTGCATGTTTACCATCTATTTTGTGAGATAAT  
GGGGCTTTTAAAAAATAACTTTGCTTTTATGATATATTGATTTTGTGGAAGTTAAGTTTAGCAATATAGA  
CTCTAAAGCAAATTAATTTTAAAGCCATAAGAAATTAATACTATATCCAGTATCTGTATGTCTGTATAAAG  
CAGTGTATTATCATGTTTTCTTTCTGTGATTGTAAGTTAAGAGTCTTAAGTGCAGAGGTATTGTGGAAGTAGT  
AGCCTTAAGCATAATAAAATATGGTCTCTTGGGTACTCCCTCTGGCCATTACCACATTCTTAGATTATATGTGTC  
CATCTTTGCAGCTTTCTGAGAGTAATTTTATTTGTTGCTTCTGAAATGTACATGTATACATGTACCTACTGAGT  
GCTATGTGATTTTTTAAAGTATTACTGTAGAATGCTTCTGCAAATCAATAAAGTTGTTAAATTTGAACAGTG  
TTGTGTGGTCTCCAGAAACATGTTGTTCTGTGTGCTTTATCTTGGAGTTGCAACAAGTTAAATATTTGTATATG  
AACACCCCTTTTCCATTTTATCATTTGAAACTCACTTTGACATTTTCAAGTGGTATAATTGAAAATATTCTGATTATG  
GTATGGTTTTTCTTCTGTTTGGAGACCATGTTTTTATTGACTGTTGGAATCTAAATTTATAAGAGGAATTAATCT  
GTAACCAGATACCTTATTGTTTTAACCGATTTCTATTCCACTACTAATGGTTTTTTTTTACTTTGTGCTTTCTAGT  
TCTTAGATTCTGAGTTAACAAGCATAAAATAGATTTTATATTGCTGGGGGTTGTACCAAACATAGATACATTGA  
CAGATCCATTGATAGAAGTGTGGGAGATGGACTTGAAATCTTAGTCCTAAATAAAGACTGAAGTGTAAACTA  
ACTTGATAAAAATCACTGTTGTTTTTGGGAACCTGCAAGTATTAAATAGATTCTGTACTAACTAGTATTAACAC  
TGGAAAGTTAGCAAGACACATATAGATGTCTTGACCACTTTTTCACACAAGTTTCAAGTTCATGTAAACTTTAG  
AATTGACTTCCTTTCTGTCTCTTCAGTAAGAAAGTAATCTAACTTAAATTTTTTGGTAGTAGAAGTTTTAGAAATA  
ACAACTGACTAATTTTGCTATACCATGATAAATGTCTACAAAAGGGATTTTTTTTTTTTTTGAATGAAGTTTCG

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**FIGURE 319B**

CTCTTGTCCCCAAAGCTGGAGTGCAATGGTGTGATCTCAGCTCGCTGCAACCTCCGCCTCCCAGGTTCAAGCAAT  
TCTCCTGCCTTAGCCTCCTGAGTAGCTGGGATTACAGGTGTCTGCCACCAACCCTGGCTAATGTTTGTATTTTAA  
GTAGAGACGGGGTTTACCATGTTGGCCAGGATGGTCTTAAGCTGACCTCAGGTGATCCGCCCACCTCGGCCTTC  
CAAAGTGCTGGGATTACAAGCGTGAGCCACCATGCCCTGCCAGGGATGTTAACTAAAATCAGTCTTTTCAAAC  
TAGATCTTCAAATGATGATGAATTTAAGACTAGGAGACTGGAATATTGAAGCCTATTAAAAAATACATATCCTTG  
CGTTGTTAGGTAAATAACTATCATGGTGACAAGTGTATAAGTATTGGCTTCTTTTCAAAGAAATGTTATTTTAT  
TATAAGGACTGGGACGAGAAGTGACCTGTGATTGGTCGTATTTTCTGTGAACAAGATTCTTTCTTTACCTGAGT  
TGTACCTAGGTTTTTATAACTACATCAAAAAAGCTTTTATATTGTACTTATTAATGTTATGGCAGTTACTTATA  
GAAGCTTGGTACTATATGGATTTTTTTCATTTTTAACTTTCCCTTCTATGTTCCAAATTTTAAATTTAGTAAGTC  
AACCTTTGCTGTACAGTAGTAGTATACTGTATGGACAAAACAATGGTAACAATTGTGTTATTTTAAATGGCCTTT  
TTCCACATCTAAATTGTTCTTACTGAAAAGCTTTTCGTGGGAGCATTTTGAACCTCACTTCATGTTCAAAGCTATGA  
GTCCAGATAAAAGGAAAGGAGAATAGGTAGGAAGAAGTGGTTGTCAGATGAAAGGGTAAGGGAGATAAGCAAAAA  
TGGGATAAAATAATGAAACAGTTTTCAAGACAAATTGCAGTTAAACAATTTTGGACTAGTGAGGTATTACCAGTAG  
ACTTGTTTTTTCACTTTTAATGTGCCTAAAACCAGGGTTCCCGATTAAATATTAGGATAACATCATATTTATTGA  
GTGTTTTCAGAGAGTAATGGTTTCTCCAATGTTATTTCCAGACTCTAAAATAGAGCTCAAGCTTGAGAAGAGAGAA  
CCACTAAAGGGCAGAGCAAAGACTCCAGTAACACTCAAGCAAAGAAGAGTTGAGCACAATCAGGTATCTTTAGTT  
TTATTACCACCGTGTACAGGTATAAATAACCTCCTGACAACACTAATCCATGTTTTAGCCTTTAATGGTTGACAC  
CCAGATTCCAGCAGCTCAATAAACTTAATTCTGTTGTTAAATGATACTAAAAATCTAACTTTGTGGGTTTTGT  
CAGTAGTGTAGCCTGTGATTACAGCAAAAGCAAATTTTTAATGTCTCATTTGTGTTTGAGTCTGTGCTAGATGTA  
GTTCAAAGCCAGTTATATGGTGTGTTTGAAGAAATATTTTAAAGGTGGAAATATCTAGACACTTTTGATACAAT  
TTCTTTAAAGGCAATGGAAGGGTTTTATATTTGTGTCTTTGTCTCTAGATTTCTGACTTTGATTTTATGTTTGC  
CTGTCTTGTCTTCTGCGATTCTTTCCTAAACTCAGAAGCTAGTCTGGTCCTAAGACTACAGTTTTCTTTCCTTAT  
TTCAGATGAAAATTTACCTTTTCTATTGTGGGAGAGGCGTTTCAGTTTTTCAAAGGGAAATGTAGGAACTAAG  
GAGAAAATAAGCATAGGTATAAATGAACAGAGAACAATTTATTGACTAACCTAGTATTGTTTACAGAGAACAAT  
TATTGACTAACCTAGTATTGTTTACAGAGAACAATTTATTGACTAACCTAGTATTGTTTACAGAGAACAATTTAT  
TGACTAATGCAGCATTGATTTGGCTGATGCTTTATAAGACAGCTATTCCCTAGAGTCATTTTCTTACCCCTGCTA  
TGTCTAGCTGGATGATTTGTCTAGTTGGTTATCTTTTCCATCTCCTATTGTCACTTTGTGTGTTTGTGTTGAC  
GGAGTTTTGTCTTGTACCCGGGCTGGAGTGAGTGCGTGATCCCATCTCATTGCAACCTCCACCCTGCTGGG  
CTCAAGCGATTCTCCTGCCTCAGCTCCCAAGTAGCTGGGATTACAGGCACATGCCACCACGCTCAGCTAATTTT  
TGATTTTTTAGTAGAGACGGGGTTTACCGTGTGGCCAGGCTGGTCTCAAACCTCCTGACCTCAGGTGATCCACC  
TGCATTGGCCTCCGAAAGTGCTGGGATTACAGGTGTGAGCCACCGCGCCCAGCCTGTTTGTGTTTTTAAATCAA  
ATCCTTAGAGGAATTATTCTTGATTCTTAAGGCAAGTCAGTCTCTCTCTTATTGATGTAGTTGATAAGTTGA  
ATTTCAGAACGATTTGTTAGAAATGAGCTTTGTGACAAGAACATACAGAGCATTGAATGAATGAAGACTTTGTTA  
ACATAGAACCAAATACTGGAATACATGTTTTATTGCCCTTTTATGTAGTAGTCCTAACAAATAGCTTCAGGAGCA  
TGCTGAAGAATAAGGAAATAGGCCGGGCGCAGTGGCTCACGCCTGTAATCCAGCACTTTGGGAGGCCGAGGCGG  
GCGGATCACCTGAGGTCCGGAGTTCGAGACGAGCCTGACCAACATGGAGAAACCCTGTCTCTACTAAAAATACAA  
AATTAGCCAGGCATGGTGGTGCATGCCTGTAATCCTAGCTACTCCGGAGGCTGAGGCAGGAGAATCGCTTGAACC  
TTGGAGGCGGAGGTTGCTGTGAGCCGAGATCGCGCCATTGCACTCTAGCCTGGGCAACAAGAGCGAAACTCTGTC  
TCAAAAATAAAATAAAATAAAATAAATAAATAAAGATGGTCTAAGGGATAATTGAGTTGGAGGAATCTAACTGA  
GGAGCAGAATAAATAGTCAAAGGAGTGTAGGTTTAGATGACAGGCAGAAATTAGACAGTGGCTTTATTGCAGAAAA  
TTTAAACATGTAGAAGAGTGGAGGGAAGAGTTAATGACCCTCCAGTCATAGATGTGCCACAGTTGTCTAGTGTT  
TTACCAGTTTGGTTTCATCACCCACACCCTCCAGCTTTTTTAAATTACTTTTTTTTTTTTTTTTTTTTGGAGACA  
GAATCTCACTCTGTGCGCCAGGTTGGAGTGAGTGACAGTGGCACAATCTCGGCTCACTTGCAACCTCCGCCTCCTGGGTT  
CAAGCAGTTCTCCTGCTTCAGCCTCCTGAGTAGCTGGGATTACAGGTTCCCGCCACCATGCCAGCTAGTTTTTG  
AATTC

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**FIGURE 320A**

GCCATTTCCCTCCTCTTGTGTTTTCACTCCGGATTCTCCATGTTGGACCCAAACTGAGGAGCCCGGAGCTGCCGCTGG  
GGGATCGGGGCGGGGGGACCCGGGGGAGCCGCTGCCCGGGCGCCCGCCCTTTGTACAGGCCGCTCCCTTCCC  
GGTCCGGGGAGGAAACGAGAGGGGGATGTGAACAGCTGTGGAAGTCGGAGTCTCGGGAGCCGGAGCGGGCCCC  
GCCCAGGCCCCCAGCCAGCCAGCCCGCGCGCCCGCCGTCCTCCCGTCCAGCCAGCCGGGGCCCGCGGGATT  
GTTAGATGGAACACGGCTCCATCATCACCCAGGCGCGGAGGGAAGACGCCCTGGTGCTACCAAGCAAGGCCTGG  
TCTCCAAGTCCTCTCCTAAGAAGCCTCGTGGACGTAACATCTTCAAGGCCCTTTTCTGCTGTTTTCGCGCCCAGC  
ATGTTGGCCAGTCAAGTTCCTCCACTGAGCTCGCTGCGTATAAGGAGGAAGCAAACACCATTGCTAAGTCGGATC  
TGCTCCAGTGTCTCCAGTACCAGTTCCTACCAGATCCCAGGGACCTGCCTGCTCCCAGAGGTGACAGAGGAAGATC  
AAGGAAGGATCTGTGTGGTCATTGACCTCGATGAAACCCTTGTGCATAGCTCCTTTAAGCCAATCAACAATGCTG  
ACTTCATAGTGCCTATAGAGATTGAGGGGACCACTACCAGGTGTATGTGCTCAAGAGGCCTTATGTGGATGAGT  
TCCTGAGACGCATGGGGGAACCTTTGAATGTGTTCTCTTCACTGCCAGCCTGGCCAAGTATGCCGACCCTGTGA  
CAGACCTGCTGGACCGGTGTGGGGTGTTCGGGGCCCGCTATTCCGTGAGTCTTGCGTGTTCACCAGGGCTGCT  
ACGTCAAGGACCTCAGCCGCTGGGGAGGGACCTGAGAAAGACCCCTCATCCTGGACAACCTCGCCTGCTTCTTACA  
TATTCACCCCCGAGAATGCAGTGCCTGTGCAGTCTGGTTTTGATGACATGGCAGACACTGAGTTGCTGAACCTGA  
TCCCAATCTTTGAGGAGCTGAGCGGAGCAGAGGACGTCTACACCAGCCTTGGGGCAGCTGCGGGCCCCCTTAGCCT  
GCCCTGCTTCCAAGCGACGGCCATCCCAGTAGGGGACTTTCCACACTGTGCCTTTACGATCAGCGTGACAGAGT  
AGAAGCTGGAGTGCCTCACCACACGGCCCCGAAACAGCGGGAAGTAAGTGGAAAGAGCTTTAGGACAGCTTAGAT  
GCCGAGTGGGCGAATGCCAGACCAATGATACCCAGAGCTACCTGCCGCCAACTTGTGAGATGTGTGTTTACTG  
TGAGAGAGTGTGTGTTTGTGTGTGTGTTTGGCCATGAAGTGTGGCCCCAGTGTATAGTGTTCAGTGGGGGAGAA  
GCTGAAAGACCAAGACTCTTCCCAAGTTAGCTTGTCTCCTCTCCTGTACCCTAAGAGCCACTGAGTTGTGTAGG  
GATGAARACTATTGAAGACTCCATTGCCAAACCATGGCCTTTCTCAGTGTGTAAGGCCTATGCCAAGGATAAA  
GGAAGGGTATGCCTTTGGGTACTCCAGGCATACACCTTTCTGAAATCCTTCTCCAGCCAGCTGCTGCAGACAAAA  
GATCACATTTCTGGGAAGATGAGAACTTGTGTTCCAGACCAGCATCCAGTGGCCATCAGGTCTTGTGGCCCCAAGG  
CTATGCTTGCTCCGGCTGAGTGCCTGGGATAGGCCTTTTCTATGTCTCCCCAAGGCTGGGGTGTGAGCCTGCC  
TTCTCACCACCTAGCCATAGTCTCAAACCTGTGGGGAAGGAGGTTTTCTCCCTGCCCGGGAAGAGGACAGATAA  
CTGATTTCCGTTCTTTTACTGTGTTTTAAATTTCTTTCTAAACACAGAGTGTGGGCCTGGTTTTGTTTCTGA  
CAAAGTTACAGTCTTGGCCTGTAATGAATGTGCGCGCGCTGGGGTTGCAGGGAAAAGACAAATCCTCAAAGCG  
TGGACGTGTGTCCCCATGGCTTGTGGATCAGCTAAGCTCGGGATCATTTCATAGTCTGCTTTTTCAGGGATTCT  
CTGCTGGTGTGTTGCAAGGACTTCTGTTCCAAAGGCTGGGAAAAACTAAGCTGTCCCAGCCCCCTCCATTTCTT  
GGGCAGGGCTCTTTTCTGTTGTGTCTTCCCCAGGGCCTGTCTGTACCGAGCTCTGTCTGTTCCAGCCTACAT  
CCTTCTCGGGTGTGCTTTTCTCTTAAGGGCCTCAGAACTCTTGCTCTTCTGCGGTGAGGGGGAATGAGTGT  
CTTGACATGTGACAGCCTAATGCGCATGCTTTCTGCCTCTGGTAACAGGAGTGAGTGAGCCCTCAGACCTGCAC  
TCTGGGTGTCTCCTGCTTACAAAGGTTCTTAATAGTGAATGCTTTAAATTAAGTCATCACGAAATGGAAGTTT  
TCCCAGGGTGGAAAAATAAGAGGAAGTGTGCTGTGAATTGGGAGCACAAGGGCCTCCCAAAAAGGAGCCCCACCT  
CAGCATCACTGCCTTAATCGTGGCCTCCCTGGGGTGGGTGGGGTCTCTCCTCCCTCCCTCCCTCCTCTGGGGT  
GGGAGGGCGCTCCTGTTCCCATCTCTGTGTTCCCTGGAGGCAGGTATCACAAAGCATTGTGAATTGCTTTAGGT  
GCAGGGACACCACCCACTCAGGACTCTTCCCCATCATCCCTTCCATTGCCACACCCTAGATCCAGCCTCAGGAAC  
TAACAAGTTKTGAGAAAAGCAGGTGGTAGAGCAGCAGCTTCGTGCTCTCAGCGGTGGCTGGCTGGCATTCTTCTC  
TAGCGTTGTGGTGCCACCTTCCCTTCTGTGCCAAGGTTATAAGGCCTTGTCTTCTCTTTGGAATCATAAAGTG  
GAACAGAGTCCCCAGAACTCATGTGGHCATTTCCGACAGCATCACTCCCCGGTGCCTATGGGGTCCCGGTGTACC  
TAAAGGGAGAAGGACCCCCATGTGCTAGCCAGAAATATACTGTCTCTTGAAGGAAAGCAGGAGCTCAGACTCTTAG  
AGCCAGCTGTGGCTTCGGACCCAAGGCCTGACCTAGGCTGCTATCCTAATATTGGAGGAGGGGCCTCTCTTCCAA  
GCCCCACCCTAAGGGTTAGCCCTTGGACAAATCTTGTGCCGTCTAGGCCCAGCCAGGCTTTTCTGACTAAATAAG  
CAATAAGAGGCTCTAAGCTGACTGAGTTGCAAGGACCCTTTCCGCCCTCCCTTGGATCTCCATGTTTCTCCAGAT  
GGCGGAAGAGCATGTGCCACCCCTTTCTTAACAGACTTGTCCAAGTGTCTTGGCGTGGGACCCATGACCAAAGCC  
CAGGATGGCTTGGTGGGAGTGTCCCTGCTGCATCTGCATGAAGCCCTGCTTTTATAGGCTCACTCCCATCAGAA  
CCCTGCCTGCCACCTGCAACTCCCCCAACAATGCCATTCCCACTTGCCCCAGAGAAGCTACTCGGCCAAACC  
TAGCCAGGGTCTGTTCTTGTGGACCAGAGCCAGCCTAGTCATTATTTGCTGTGCGGTTTCCAGTTTCACCGTGTG

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**FIGURE 320B**

TTAGGGTGAGGGATGATTGTAAAATTTGCTCCTCAAAGGAATCAGGCCAGACTCAATTTTGGGAGGGCAAGACAG  
GGAGGAGGCCGCTTCATCCCAGACTCTCTTCTAGGGCTTCCCACCATCAGCCCCCTCCCACTTGAGACTGGTCTTT  
GGGAGGCAATAGGCCACCATGCCTGGTCAGCACCAATTCAAGCCATGCCAGGAATCTGCCTACCTGCCAGGTTCA  
GTTCTTTTAAGGTGCCTCTTCAGGGACACAGTGTGTCTCTCTGATTGGGCTTCTAAATCAAAGCCTGATGTTG  
TGTCCCTCTCATAGGGGGAGCTTTGGACACAGGACCAGTTTGAAAAGGGTCAGGTAAGGGTTTCCACTCTGCAC  
ATTGTAGAGGGAACACTCTGTAGGCCCATGGGTCCCTTACTAGAGAGGTTGAGTGAATTTGCCTTCAGTTAACAT  
GGGACCTTCTGTTTAGCTTCCTCTTGCTTCCCAAAGATTTTAAGCATTTTGTAATGTATAAACTCACCTCTGGT  
AACAGTGGCCCAGACGCTGCTTTGTGCTAAAAGCATGGGAAATGTAAAGGCAGTCTTTCTCTGGGAAATGGATGC  
TATTCTATTCTGCTGCCCCCTACCTGTTCCCTGAGGCCTCATTTAGAAAAGAAAATCCCCCTCAGAAGGCTGTCTGGCA  
CCCAGTGTCTTAGCCAGGCCAAGTATATGAGAAAGGTAAGTCCATTTTCCCCTTCAGGTCCTCAGTGGATTACTT  
AACCCTGCTGTCCCTCGGTCCCTTTTTTCTAAACGGGTTTAGTTCTGTCTTTTTTCTCCTTTTTTCTAAATGCT  
GGTAAATATTTACATTCAGCCAGGGAAGAGGAGGCCAGAGGTCGGGCCAGCTGCCCCATTCTTTTAACGTTGTAG  
GGCCTGCCCATGGAGCGGACCCTCCTCTTTGGGCCTCGTGAGCTTTTTTGCTTATCATGTTCCATTTTCGTGCCGC  
TTTCCCCCTTCAAGATGCCATTTGGAGGGTAGGGGATCTGCTTCCCCTGTGACTGGGCTATGGGATTCTGACTA  
CCTTGCTTACAGATTCATGGTTTGATAAATTTGTTGTATTCCAAAACCTGAAATGCAGGACGCCATTAAGTGTCT  
GTTTATATTTTTGGAATATTTGTATTACTTACAATTAATTAATAAAAAGTGGGTTTAAAAAACCTTTCCAGGAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 321**

MEHGSIIITQARREDALVLTQGLVSKSSPKKPRGRNIFKALFCCFRAQHVQSSSSTELAAYKEEANTIAKSDLL  
QCLQYQFYQIPGTCLLPEVTEEDQGRICVVIDLDETLVHSSFKPINNADFIVPIEIEGTTHQVYVLKRPYVDEFL  
RRMGELFECVLFTASLAKYADPVIDLLDRCGVFRARLFRESCVFHQGCYVKDLSRLGRDLRKTILDNSPASYIF  
HPENAVPVQSWFDDMADTELLNLIPIFEELSGAEDVYTSLGAAAGPLACPASKRRPSQ



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**FIGURE 322**

CGTCTGGTTCAGGGGCTAGAAAAGAGCGTCGATGCCGGCGGCAGTGATGAGTCCTAGGAGGCGCTGGCTCTTTGG  
CGGCTCGGAGGAGCGGCTGCTGCTGCTGCTGCTGCTGGTGGCCCCCTTGCAGATGTATTGCTGTCCTTGAAT  
ATTAGCCCATTGAAAACGCCTGGGAAGTTCAGCCATCAGT**ATGT**CCAAGTACAACTTATTATGTTAAGACATG  
GAGAGGGTGCTTGGAATAAGGAGAACCGTTTTTTGTAGCTGGGTGGATCAGAACTCAACAGCGAAGGAATGGAGG  
AAGCTCGGAACGTGTGGGAAGCAACTCAAAGCGTTAAACTTTGAGTTTGATCTTGTATTACATCTGTCCTTAATC  
GGTCCATTACACAGCCTGGCTGATCCTGGAAGAGCTAGGCCAGGAATGGGTGCCTGTGGAAAGCTCCTGGCGTC  
TAAATGAGCGTCACTATGGGGCCTTGATCGGTCTCAACAGGGAGCAGATGGCTTTGAATCATGGTGAAGAACAAG  
TGAGGCTCTGGAGAAGAAGCTACAATGTAACCCCGCCTCCCATTGAGGAGTCTCATCCTTACTACCAAGAAATCT  
ACAACGACCGGAGGTATAAAGTATGCGATGTGCCCTTGGAATCAACTGCCACGGTCGGAAAGCTTAAAGGATGTTT  
TGGAGAGACTCCTTCCCTATTGGAATGAAAGGATTGCTCCCGAAGTATTACGTGGCAAAACCATTCTGATATCTG  
CTCATGGAAATAGCAGTAGGGCACTCCTAAAACACCTGGAAGGTATCTCAGATGAAGACATCATCAACATTACTC  
TTCTACTGGAGTCCCCATTCTTCTGGAATTGGATGAAAACCTGCGTGCTGTTGGGCCTCATCAGTTCTCTGGGTG  
ACCAAGAGGCGATCCAAGCAGCCATTAAGAAAGTAGAAGATCAAGGAAAAGTGAAACAAGCTAAAAA**TAGT**CTT  
TCTCAACTGTTGGCTAAGAAGAAATGCAAAAGAAGTGGCATAGGAGTGTGTTATGGGTGCTGAACTCTCTCTCTT  
TTTCCCCGATTTTCCAGAGCTAGGCTGTGGAGTAGAGTTTGTATAGGTAAGTAACTAGGTAACCTATTGTGGCCCAGAT  
AAGGCTTTAGGATGCCTCAGTGCTTATGTCTATAGCCTTATGAGTTAGCTTTCTTGCTAGCCCCCTAGTCGGTCAC  
CAAAGTAGTAAGTATGAGGGCTTAATGAAGGTCATAAGTTTCTGAGATGGGAGAGCAACAAGTAGAGATGAAGTT  
AAAGGTATTTATCATTCAAGAAATCATTATTGAGTCACCATGACAGGCACATTCTAATCAGTAGTTCACTTTA  
ATATTTAATAAGATTTTCTGGGATAACAGTAAGGGATATTAGATAATATACCGTATGTATTTATTACTAGTCTTT  
TCCTCTAGGAAAAGGGATACTTTGATAATTAAGGCCAGAGGCCCATTAGTTGAGAAAGTCACAGATATATTTCTC  
CAAGAAAGCCAACAACCACCACCACAATGACAGAAATGACAACAAGGCCCTTTAACTTGTCTTCTAGTTTAGAGA  
CATCCTTCATTTGACATTTAGTAGAATTCCTCTTTGGCCACAAGAATAAGCAGCAAATAAACAACCTATGGCTGTT  
GAGGTTCTCATTTTGGTTTGTTTTAATTTTTTGAACCTTGGGTACCTGTAATTAGTTTAAAAATAAAGTTCCTGA  
TAATAAAGTGACTGAAAATGGCAAAAAAAAAAAAAAAAAA

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**FIGURE 323**

MSKYKLIMLRHGEGAWNKENRFCSWVDQKLNSEGMEEARNCGKQLKALNFEFDLVFTSVLNRSIHTAWLILEELG  
QEWVPVESSWRLNERHYGALIGLNREQMALNHGEEQVRLWRRSYNVTPPP IEESHPPYQEIYNDRRYKVC DVPLD  
QLPRSESLKDVLERLLPYWNERIAPEVLRGKTILISAHGNSSRALLKHLEGISDEDIINITLPTGVPILLELDEN  
LRVGPHQFLGDQEA IQAAIKKVEDQGKVKQAKK

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**FIGURE 324A**

GGCGCGGGCGGCCTGGAGCCCCGGGAGCGGCGCGCGGTCCCGGCCAGCCGGCTCTCCTGGCCTCGCGCTGCA  
CATTCTCTCCTGGCGGCGGCGCCACCTGCAGTAGCGTTTCGCCGAAC**ATG**CGGACACGGAGCAGCAGGAGGGAGT  
CGCGACTCCCGTTTCTATTACCCCTGGTCGCACTGCTGCCGCCCCGAGCTCTCTGCGAAGTCTGGACGCAGAGGC  
TGCACGGCGGCAGCGCGCCCTTGCCCCAGGACCGGGGCTTCTCGTGGTGCAGGGCGACCCGCGCGAGCTGCGGC  
TGTGGGCGCGCGGGGATGCCAGGGGGGCGAGCCGCGCGGACGAGAAGCCGCTCCGGAGGAAACGGAGCGCTGCCC  
TGCAGCCCCGAGCCCATCAAGGTGTACGGACAGGTTAGTCTGAATGATTCCCACAATCAGATGGTGGTGCCTGCGG  
CTGGAGAGAAAAGCAACGTGATCGTGGCCTTGCCCCGAGATAGCCTGGCATTGGCGAGGCCCAAGAGCAGTGATG  
TGTACGTGTCTTACGACTATGGAAAATCATTCAAGAAAATTTAGACAAGTTAAACTTTGGCTTGGGAAATAGGA  
GTGAAGCTGTTATCGCCAGTTCTACCACAGCCCTGCGGACAACAAGCGGTACATCTTTGCAGACGCTTATGCCC  
AGTACCTCTGGATCACGTTTGACTTCTGCAACACTCTTCAAGGCTTTTCCATCCCATTTGGGCAGCTGATCTCC  
TCCTACACAGTAAGGCCTCCAACCTTCTCTTGGGCTTTGACAGGTCCACCCCAACAAGCAGCTGTGAAGTCAG  
ATGACTTTGGCCAGACCTGGATCATGATTAGGAACATGTCAAGTCCTTTTCTTGGGGAATTGATCCCTATGACA  
AACCAAATACCATCTACATTGAACGACACGAACCCTCTGGCTACTCCACTGTCTTCCGAAGTACAGATTTCTTCC  
AGTCCCGGGAAAACAGGAAGTGATCCTTGAGGAAGTGAGAGATTTTCAGCTTCGGGACAAGTACATGTTTGCTA  
CAAAGGTGGTGCATCTCTTGGGCAGTGAACAGCAGTCTTCTGTCCAGCTCTGGGTCTCCTTTGGCCGGAAGCCCA  
TGAGAGCAGCCCAGTTTGTCAAGACATCCTATTAATGAATATTACATCGCAGATGCCTCCGAGGACCAGGTGT  
TTGTGTGTGTGTCAGCCACAGTAACAACCGCACCAATTTATACATCTCAGAGGCAGAGGGGCTGAAGTTCTCCCTGT  
CCTTGGAGAACGTGCTCTATTACAGCCCAGGAGGGGCCGCGCAGTGACACCTTGGTGAGGTATTTTGCAAATGAAC  
CATTTGCTGACTTCCACCGAGTGGAAGGATTGCAAGGAGTCTACATTGCTACTCTGATTAATGGTTCTATGAATG  
AGGAGAACATGAGATCGGTCATCACCTTTGACAAAGGGGGAACCTGGGAGTTTCTTCAGGCTCCAGCCTTCACGG  
GATATGGAGAGAAAATCAATTGTGAGCTTTCCAGGGCTGTTCCCTTCATCTGGCTCAGCGCCTCAGTCAGCTCC  
TCAACCTCCAGCTCCGGAGAATGCCATCCTGTCCAAGGAGTCGGCTCCAGGCCTCATCATCGCCACTGGCTCAG  
TGGGAAAGAACTTGGCTAGCAAGACAAACGTGTACATCTCTAGCAGTGCTGGAGCCAGGTGGCGAGAGGCACTTC  
CTGGACCTCACTACTACACATGGGGAGACCACGGCGGAATCATCACGGCCATTGCCAGGGCATGGAACCAACG  
AGCTAAATACAGTACCAATGAAGGGGAGACCTGGAACAACTCATCTTCTCTGAGAAGCCAGTGTGTTGTGTATG  
GCCTCCTCACAGAACCTGGGGAGAAGAGCACTGTCTTACCATCTTGGCTCGAACAAAGAGAATGTCCACAGCT  
GGCTGATCCTCCAGGTCAATGCCACGGATGCCTTGGGAGTTCCCTGCACAGAGAATGACTACAAGCTGTGGTCAC  
CATCTGATGAGCGGGGGAATGAGTGTGTTGCTGGGACACAAGACTGTTTTCAAACGGCGGACCCCCCATGCCACAT  
GCTTCAATGGAGAGGACTTTGACAGGCCGCTGGTGTGTCCAAGTGTCTGACCCGGGAGGACTATGAGTGTG  
ACTTCGGTTTTCAAGATGAGTGAAGATTTGTCAATTAGAGGTTTGTGTTCCAGATCCGGAATTTTCTGGAAAGTCAT  
ACTCCCCTCCTGTGCCCTTGCCCTGTGGGTTTACTTTACAGGAGAACGAGAGGCTACCGGAAGATTTCTGGGGACA  
CTTGTAGCGGAGGAGATGTTGAAGCGCGACTGGAAGGAGAGCTGGTCCCCCTGTCCCCTGGCAGAAGAGAACGAGT  
TCATTCTGTATGCTGTGAGGAAATCCATCTACCGCTATGACCTGGCCTCGGGAGCCACCGAGCAGTTGCCTCTCA  
CCGGGCTACGGGCAGCAGTGGCCCTGGACTTTGACTATGAGCACAACTGTTTGTATTGGTCCGACCTGGCCTTGG  
ACGTCATCCAGCGCCTCTGTTTGAATGGAAGCACAGGGCAAGAGGTGATCATCAATTCTGGCCTGGAGACAGTAG  
AAGCTTTGGCTTTTGAACCCCTCAGCCAGCTGCTTTACTGGGTAGATGCAGGCTTCAAAAAGATTGAGGTAGCTA  
ATCCAGATGGCGACTTCCGACTCACAATCGTCAATTCTCTGTGCTTGATCGTCCCAGGGCTCTGGTCCTCGTGC  
CCCAAGAGGGGGTGATGTTCTGGACAGACTGGGGAGACCTGAAGCCTGGGATTTATCGGAGCAATATGGATGGTT  
CTGCTGCCTATCACCTGGTGTCTGAGGATGTGAAGTGGCCCAATGGCATCTCTGTGGACGACCAGTGGATTTACT  
GGACGGATGCCTACCTGGAGTGCATAGAGCGGATCACGTTTCAAGTGGCCAGCAGCGCTCTGTCAATTCTGGACAACC  
TCCCGCACCCCTATGCCATTGCTGTCTTTAAGAATGAAATCTACTGGGATGACTGGTCACAGCTCAGCATATTCC  
GAGCTTCCAAATACAGTGGGTCCCAGATGGAGATTCTGGCAAACAGCTCACGGGGCTCATGGACATGAAGATTT  
TCTACAAGGGGAAGAACTGGAAGCAATGCCTGTGTGCCAGGCCATGCAGCCTGCTGTGCCTGCCCAAGGCCA  
ACAACAGTAGAAGCTGCAGGTGTCCAGAGGATGTGTCCAGCAGTGTGCTTCCATCAGGGGACCTGATGTGTGACT  
GCCCTCAGGGCTATCAGCTCAAGAACAATACCTGTGTCAAAGAAGAGAACACCTGTCTTCGAACCAAGTATCGCT  
GCAGCAACGGGAACGTATCAACAGCATTGTTGGTGGTGTGACTTTGACAACGACTGTGGAGACATGAGCGATGAGA  
GAAACTGCCCTACCACCATCTGTGACCTGGACACCCAGTTTCGTTGCCAGGAGTCTGGGACTTGTATCCCACTGT  
CCTATAAATGTGACCTTGAGGATGACTGTGGAGACAACAGTGATGAAAGTCATTGTGAAATGCACCAAGTGCCGGA

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**FIGURE 324B**

GTGACGAGTACAACCTGCAGTTCCGGCATGTGCATCCGCTCCTCCTGGGTATGTGACGGGGACAACGACTGCAGGG  
ACTGGTCTGATGAAGCCAACCTGTACCGCCATCTATCACACCTGTGAGGCCTCCAACCTCCAGTGCCGAAACGGGC  
ACTGCATCCCCCAGCGGTGGGCGTGTGACGGGGATACGGACTGCCAGGATGGTTCCGATGAGGATCCAGTCAACT  
GTGAGAAGAAGTGCAATGGATTCCGCTGCCCAAACGGCACTTGATCCCATCCAGCAAACATTGTGATGGTCTGC  
GTGATTGCTCTGATGGCTCCGATGAACAGCACTGCGAGCCCCCTCTGTACGCACTTCATGGACTTTGTGTGTAAGA  
ACCGCCAGCAGTGCCTGTTCCACTCCATGGTCTGTGACGGAATCATCCAGTGCCGCGACGGGTCCGATGAGGATG  
CGGCGTTTGCAGGATGCTCCCAAGATCCTGAGTTCCACAAGGTATGTGATGAGTTCGGTTTCCAGTGTGAGAATG  
GAGTGTGCATCAGTTTGATTGGAAGTGCACGGGATGGATGATTGCGGCGATTATTCTGATGAAGCCAACCTGCG  
AAAACCCACAGAAGCCCCAACTGCTCCCGCTACTTCCAGTTTCGGTGTGAGAATGGCCACTGCATCCCCAACA  
GATGGAAATGTGACAGGGAGAACGACTGTGGGGACTGGTCTGATGAGAAGGATTGTGGAGATTCACATATTCTTC  
CCTTCTCGACTCCTGGGCCCTCCACGTGTCTGCCAATTACTACCGCTGCAGCAGTGGGACCTGCGTGATGGACA  
CCTGGGTGTGCGACGGGTACCGAGATTGTGCAGATGGCTCTGACGAGGAAGCCTGCCCTTGCTTGCAAACGTCA  
CTGCTGCCTCCACTCCCACCCAACCTGGGCGATGTGACCGATTGAGTTCGAATGCCACCAACCGAAGACGTGTA  
TTCCCAACTGGAAGCGCTGTGACGGCCACCAAGATTGCCAGGATGGCCGGGACGAGGCCAATTGCCCCACACACA  
GCACCTTGACTTGATGAGCAGGGAGTTCCAGTGCGAGGACGGGGAGGCCGTGATTGTGCTCTCGGAGCGCTGCG  
ACGGCTTCTGGACTGCTCGGACGAGAGCGATGAAAAGGCCTGCAGTGATGAGTTGACTGTGTACAAAGTACAGA  
ATCTTCAGTGACAGCTGACTTCTCTGGGGATGTGACTTTGACCTGGATGAGGCCCAAAAAATGCCCTCTGCTT  
CTTGTGTATATAATGTCTACTACAGGTGGTTGGAGAGAGCATATGGAAGACTCTGGAGACCCACAGCAATAAGA  
CAAACACTGTATTAAGTCTTGAAACCAGATACCACGTATCAGGTTAAAGTACAGGTTCAAGTGTCTCAGCAAGG  
CACACAACACCAATGACTTTGTGACCCTGAGGACCCCAGAGGGATTGCCAGATGCCCTCGAAATCTCCAGCTGT  
CACTCCCCAGGGAAGCAGAAGGTGTGATTGTAGGCCACTGGGCTCCTCCCATCCACACCCATGGCCTCATCCGTG  
AGTACATTGTAGAATACAGCAGGAGTGGTTCCAAGATGTGGGCCTCCAGAGGGCTGCTAGTAACCTTTACAGAAA  
TCAAGAACTTATTGGTCAACACTCTATACACCGTCAGAGTGGCTGCGGTGACTAGTCGTGGAATAGGAACTGGA  
GCGATTCTAAATCCATTACCACCATAAAAGGAAAAGTGATCCCACCACCAGATATCCACATTGACAGCTATGGTG  
AAAATTATCTAAGCTTCACCCTGACCATGGAGAGTGATATCAAGGTGAATGGCTATGTGGTGAACCTTTTCTGGG  
CATTTGACACCCACAAGCAAGAGAGGAGAACCTTTGAACTTCCGAGGAAGCATATTGTACACAAAAGTTGGCAATC  
TGACAGCTCATACTCCTATGAGATTTCTGCCTGGGCCAAGACTGACTTGGGGGATAGCCCTCTGGCATTGAGC  
ATGTTATGACCAGAGGGGTTGCCCCACCTGCACCTAGCCTCAAGGCCAAAGCCATCAACCAGACTGCAGTGGAAT  
GTACCTGGACCGGCCCCCGGAATGTGGTTTATGGTATTTTCTATGCCACGTCCTTTCTTGACCTCTATCGCAACC  
CGAAGAGCTTGACTACTTCACTCCACAACAAGACGGTCATTGTGAGTAAGGATGAGCAGTATTTGTTTCTGGTCC  
GTGTAGTGGTACCCTACCAGGGGCCATCCTCTGACTACGTTGTAGTGAAGATGATCCCGGACAGCAGGCTTCCAC  
CCCGTCACCTGCATGTGGTTCATACGGGCAAAACCTCCGTGGTCATCAAGTGGGAATCACCGTATGACTCTCCTG  
ACCAGGACTTGTTGTATGCAATTGCAGTCAAAGATCTCATAAGAAAGACTGACAGGAGCTACAAAGTAAAATCCC  
GTAACAGCACTGTGGAATACACCCTTAACAAGTTGGAGCCTGGCGGGAAATACCACATCATTGTCCAACCTGGGGA  
ACATGAGCAAAGATTCCAGCATAAAAATTACCACAGTTTCATTATCAGCACCTGATGCCTTAAAAATCATAACAG  
AAAATGATCATGTTCTTCTGTTTTGGAAAAGCCTGGCTTTAAAGGAAAAGCATTTTAATGAAAGCAGGGGCTATG  
AGATACACATGTTTGATAGTGCCATGAATATCACAGCTTACCTTGGGAATACTACTGACAATTTCTTTAAATTT  
CCAACCTGAAGATGGGTCATAATTACACGTTACCGTCCAAGCAAGATGCCTTTTTGGCAACCAGATCTGTGGGG  
AGCCTGCCATCCTGCTGTACGATGAGCTGGGGTCTGGTGAGATGCATCTGCAACGCAGGCTGCCAGATCTACGG  
ATGTTGCTGCTGTGGTGGTGCCATCTTATTCCTGATACTGCTGAGCCTGGGGTGGGGTTTGCCATCCTGTACA  
CGAAGCACCGGAGGCTGCAGAGCAGCTTACCGCCTTCGCCAACAGCCACTACAGCTCCAGGCTGGGGTCCGCAA  
TCTTCTCCTCTGGGGATGACCTGGGGGAAGATGATGAAGATGCCCTATGATAACTGGATTTTTCAGATGACGTCC  
CCATGGTGATAGCCTGAAAGAGCTTTCCTCACTAGAAACCAAATGGTGTAATATTTTATTTGATAAAGATAGTT  
GATGGTTTTATTTTAAAGATGCACCTTGAGTTGCAATATGTTATTTTATATGGGCCAAAAACAAAAACAAAAA  
AAAAAA

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**FIGURE 325**

MATRSSRRESRLPFLFTLVALLPPGALCEVWTQRLHGGSAPLPQDRGFLVVQGDPRELRLWARGDARGASRADEK  
PLRRKRSAAALQPEPIKVYGVSLNDSHNQMVVHWAGEKSNVIVALARDSLALARPKSSDVYVSYDYGKSFKKISD  
KLNFGGLGNRSEAVIAQFYHSPADNKRYIFADAYAQYLWITFDFCNTLQGFSSIPFRAADLLLHASKASNLLGLFDRS  
HPNKQLWKSDDFGQTWIMIQEHSVKSFSWGIDPYDKPNTIYIERHEPSGYSTVFRSTDFQSRNQEVILEEVRDF  
QLRDKYMFA TKVVHLLGSEQQSSVQLWVSFGRKPMRAAQFVTRHPINEYYIADASEDQVFVCSHNSNNRTNLYIS  
EAEGLKFSLSLENVLYYSPGGAGSDTLVRYFANEFPADFHRVEGLQGVYIATLINGSMNEENMRSVITFDKGGTW  
EFLQAPAFGTGYGEKINCELSQGCSLHLAQRLSQLLNQLRRMPILSKESAPGLIATGSVGKNLASKTNVYISSS  
AGARWREALPGPHYWTWGDHGGIITAI AQGMETNELKYSTNEGETWKTFIFSEKPVFVYGLLTPGEKSTVFTIF  
GSNKENVHSWLILQVNATDALGVPCTENDYKLWSPSDERGNECLLGHKTVFKRRTPHATCFNGEDFDRPVVVSNC  
SCTREDYECDFGFKMSEDLSLEVCVPDPEFSGKSYSPVPCPVGSTYRRTRGYRKISGDTCSGGDVEARLEGELV  
PCPLAEENEFILYAVRKSIYRYDLASGATEQLPLTGLRAAVALDFDYEHNCPLYWSDALDVIQRLCLNGSTGQEV  
I INSGLETVEALAFEPLSQLLYWVDAGFKKIEVANPDGDFRLTIVNSSVLDPRALVLVPQEGVMFWTDWGD LKP  
GIYRSNMDGSAAYHLVSEDVKWPNGISVDDQWIYWTDAYLECIERITFSGQQRSVILDNLPHPYAIAVFKNEIYW  
DDWSQLSIFRASKYSGSQMEILANQLTGLMDMKIFYKGKNTGSNACVPRPCSLCLPKANNRSCRCPEDVSSSV  
LPSGDLMCDCPQGYQLKNNTCVKEENTCLRNQYRCSNGNCINSIWCDFDNDCGMSDERNCPTTICDLDTQFRC  
QESGTCIPLSYKCDLEDDCGDNSDESHCEMHQCRSDEYNCSGMCIRSSWVCDGDND CRDWSDEANCTAIYHTCE  
ASNFQCRNGHCIPQRWACDGD TDCQDGSDEDPVNCEKKCN GFRCPNGTCIPSSKHCDGLRDCSDGSDEQHCEPLC  
THFMDFVCKNRQQCLFHSMVCDGIIQCRDGSDEDAAFAGCSQDPEFHKV CDEFGFQCQNGVCISLIWKCDGMDDC  
GDYSDEANCENPTEAPNCSRYFQFRCENGHCIPNRWKCDREND CGDWSDEKDCGDSHILPFSTPGPSTCLPNYYR  
CSSGTCVMDTWVCDGYRDCADGSDEEACPLLANVTAASTPTQLGRCDRFEFECHQPKTCIPNWKRCDG HQDCQDG  
RDEANCPHTSTLTCSREFQCEDEGEACIVLSERCDGFLDCSDESDEKACSDELTVYKVQNLQWTADFSGDVTLTW  
MRPKKMPSASCVYNVYYRVVGESIWKTLETHSNKTNTVLKVLKPD TTYQVKVQVQCLSKAHNTNDFVTLRTPEGL  
PDAPRNQLSLPREAEGVIVGHWAPPIHTHGLIREYIVEYSRSGSKMWASQRAASN FTEIKNLLVNTLYTVRVAA  
VTSRGIGNWSDSKSITTIKGKVI PPPDIHIDSYGENYLSFTLT MESDIKVNGYVVNLFWAFDTHKQERRTL NFRG  
SILSHKVGNLTAHTSYEISAWAKTDLGDSPLAFEHVMTRGVRPPAPSLKAKAINQTAVECTWTGPRNVVYGIFYA  
TSFLDLYRNPKSLTSLHNKTVIVSKDEQYLF LVRVVVPYQGPSSDYVVVKMIPDSRLPPRHLHVHTGKTSVVI  
KWESPYDSPDQDLLYAI AVKDLIRKTD RSYKVKS RNSTVEYTLNKLEPGG

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**FIGURE 326A**

CACGTTGGGTGACATAATGGGGTTTTTTTAATTATAGATTACACTGCATTTATTCATCACCCCTGTCCTCTCAT  
 CCATAACTCAAATTTACTACCAGCAACACAAAATACAAAGATGTGTCCAGTTTCACTACAGCTCTTCGCGTTTAC  
 AAGTGTGAGCGCTTGCTTTTCGGAACGCCCTTGATTGGCCGAGCCAATGCCAGTGACATCAACCAACTTACTT  
 TTGATTGGAAGGCTGGTTGCTGGGACTGTAGCGTTTGAGGAAGTCACTTAACTGTTTGGGAGCTGGAAAACCGA  
 AGCTGAAGTTCTCTTTTGCCATAGGAACGAGCGCAACTGACTAGGAAAGATGTGTCCCAAAGCTCCGCAAGCTGG  
 AACGTGAGCCAGGAGGCGCGACCGGCCACGGGACCGCGAGGCACTCCGAAAGTGTGCGGCTGCCCTTCCCTGC  
 CTCCCAGCTGTTACCCTTTTAAATGTCAGTGTTCGAGGCTGTAGGGGTAGCACGAGGCAGCGAAACGGAACAGTC  
 GGATTGGCCGCACGCCTCAGTTCTAGACGCACCTCTCCACCGAAGCCGTTCTGACTGGCAGGGGGAGAAAGTAAA  
 CAGAGTTGAATCACCTCCCCACTGGCCAATTGGAGGGGGTTTGGTTTGTGACGTGATGGGATTCTGCGAAATTG  
 TTAGTGAGCAAGAGAATGCCGGAACGTGCGGACCGGCCGAGCAGGGGTTCAGAAGCCGTCAGTGGACTCGGGAA  
 AAAGTGTCTCTTAGACCTGGCGCTCGGCGGGGCCCTCGCCACCCGCGTCGGGGTGATCGGGTGAATGTCCTGGGG  
 CTTTGGCTCGACGGCGAGGCGGCCGAGGGCGTGACCTCTCTTGACGTTTCTCTCCAGCGCTCGGGGGCGTT  
 TTCAGTCGAATAAACTTGCGACCGCCACGTGTGGCATCTTTCCAAGGGAGCCGGCTCAGAGGGGCGGCGCGCCC  
 GTCGGGGGATCGCGGCCGCGCGGGGCGAGGGGCGGCGGCTAGAGGCGGCGCGCGCGGAGCCCGGGGCGCTGGA  
 TGCTGCGTGCGGAGGCGCTGCCGTTACGTAAAGATGAGGGGCTGAGGTCGCTCGGCGCTCCTGCGAGTCGGAA  
 GCGCCCCGCGCCCCCGCCCCCTTGGCCGCCGCGCCGTGCCGGGCGGGCGGGTCTGCTCCGAGGCCAGGGAGGGC  
 GAGCCGAACCTCCGCGACCCACCGCCAAGTTTGTCCGCGCCGCTGGGGTGGCGTCCCGCACCA**ATGT**CCGCGGC  
 CGCTACATGGAATTGCTGGCTGCCAGTGTCTGGTTTCCATTTTGAACCGCGTGGGTGCCGGAGCATGGGGT  
 CGCTCCGGACGCCGAGCGGCTGCGACTACCTGAGCGCGAGGTGACCAAGGAGCACGGTGACCCGGGGGACACCTG  
 GAAGGATTACTGCACACTGCTCACCATCGCCAAGAGCTTGTGGACCTGAACAAGTACCGACCCATCCAGACCCC  
 CTCCGTGTGACGCGACAGTCTGGAAGTCCAGATGAGGATATGGGATCCGACAGCGACGTGACCACCGAATCTGG  
 GTCGAGTCTTTCCACAGCCCGGAGGAGAGACAGGATCTTGGCAGCGCGCCAGCCGCTCTCCCTCTCCATCC  
 TGGAGTGGCTGCGAAGGGGAAACACGCCTCCGAAAAGAGGCACAAGTGGCCCTACAGTGGCTGTGGGAAAGTCTA  
 TGGAAAATCTCCCATCTCAAAGCCATTACAGAGTGCATACAGGTGAACGGCCCTTCCCCTGCACGTGGCCAGA  
 CTGCCTTAAAAAGTTCTCCCGCTCAGACGAGCTGACCCGCCACTACCGGACCCACACTGGGGAAAAGCAGTTCCG  
 CTGTCCGCTGTGTGAGAAGCGCTTCATGAGGAGTGACCACCTCACAAAGCACGCCCGGCGGCACACCGAGTTCCA  
 CCCCAGCATGATCAAGCGATCGAAAAAGGCGCTGGCCAACGCTTTG**TGAG**GGTGTGCCCCGTGGAAGCCAGGGAGG  
 GATGGACCCCGAAAGGACAAAAGTACTCCAGGAAACAGACGCGTGAAAACTGAGCCCCAGAAGAGGCACACTTG  
 ACGGCACAGGAAGTCACTGCTCTTTGGTCAATATTTCTGATTTTCTCTCCCTGCATTGTTTTTAAAAAGCÀATT  
 GTAGCCTAAGATCAAAGTCAACAACACTCGGTCCCCTTGAAGAGGCAACTCTCTGAACCCGCTCTCTGACTGTTGG  
 AGGGAAGGCAAATGCTTTTGGGTTTTTTTGGTTTTTGTTTTTTGTTTTTTTTCTCCTTTTATTTTTTTGCGGGGA  
 GGGTAGGGAGTGGGTGGGGGGGAGGGGGTAAGGCCAAGACTGGGTAGATTTTAAAGATTCAACACTGGTGTACAT  
 ATGTCGCGTGGGTGAGTTGACCTGTGGCTCGCACAGTGATTCTAGGCCCTTTATGCTTGCTGTCTCTCAGAATT  
 GTTTTCTTACCTTTTAAATGTAATGACGAGTGTGCTTCACTTTGTTTAGCAAAACCACTCTCTTGAATCACGTTAA  
 CTTTTGAGATTAAAAAAGCCATAGCACAGCTGTCTTTATGCAAGCAAGAGCACATCTACTCCAGCATGA  
 TCTGTCTCTAAAGACTTGAAAACAAAAACAGTTACTTATAGTCAATGGGTAAAGCAGAGTCTGAATTTATACTA  
 ATCAAGACAAACCTTTGAAAGGTTACACTAAGTACAGAACCTTTAAACCTTGCTTTGTATGAGTTGTACTTTTTG  
 AACATAAGCTGCACTTTTATTTTCTAATGCAGAGGATGAATAAGTTAAATACATGCTTTGAGGATAGAAGCAGAT  
 GTTCTGTTTGGCACACGTTATAATCTGCTTATTTTACAATATACACGTTTCCCTAAGAAATCATGCGCAGAGAT  
 GTGAGGGCAGAATATACACAACAGATGCTGAAGGAGAAGGAGGGTAGTGTTTTGCAAAAGAAAAAGAAAGAAC  
 AACAGAATTTTAACTCTATTAACCTTTCCAAATTTTCTATGCTTTTAGTTAACATCATTATTGTATCCTAATGC  
 CACTAGGGGAGAGAGCTTTTGACTCTGTTGGGTTTTATTTGAATGTGTGCATAACAGTAATGAGATCTGGAAACA  
 CCTATTTTTTGGGGAAAAAGGTTTGTGGTCTCCTTCTGTGTTTCTACAAAACCTCCCACTCTCAGGTGCAAGAG  
 TTATGTAGAAGGAAAGGGAGCTGAAATAGGAACAGAAAAATCAACCCCTATAACTAGTGAACACCAAGGGAAAT  
 ACCACAATGATTTTCAAGGAGACTCTGCAAAATCGTCCCTTGTGGAGAATGCAGGCAACATGGAATACTACGAAT  
 GAAATCACATCACTGTATCTTTTACATCAATAGCCTCACCCTAATATATCTTGTATCTAGGTGTCTATAATGGC  
 TGAAACCACTACATCCATCTATGCCATTTACCTGAAAACCTTAACTGTGGCCTTTATGAGGCCAGAAAAGTGAAC  
 GAGTTTTGTAGTTAAGACCTCAAATGAGGGGAGTCAGCAGTGATCATGGGGGAAATGTTTACATTTTTTTTTTCT

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**FIGURE 326B**

TCAGAAGTAACGCTTTCTGATGATTTTATCTGATATTTAAAACAGGGAGCTATGGTGCACTCTAGTTTATACTTG  
CGCTCTGAAATGTGTAAACATAGGGTGCCTACCTATTTACCTGACCCATACTCGTTTCTGATTCAGAATCAGTG  
TGGGCTCCTGCAGTGGGCGCGGGTCACGGCTGACTCCAACCTTCCAATACAACAGCCATCACTAGCACAGTGTTTT  
TTTGTTTAACCAACGTAGTGTTATTAGTAGTTCTATAAAGAGAAGTCTTTTAACATTAGGGACTGGGAGCAGTC  
CATGGGATAAAAAGGAAAGTGTTTTCTCACGAGAAAACATGTCAGGAAAAATAAAGAACACTTTCTACCTCTGTT  
TCAGATTTTTGAAACACTTATTTTAAACCAAATTTTAATTTCTGTGTCCAAAATAAGTTTTAAGGACATCTGTTC  
TTCCATACGAAATAGGTTAGGCTGCCTATTTCTCACTGAGCTCATGGAATGGTTCTGCTTATGATACTCTGCACG  
CTGCCTTTTAGTGAGTGAGGAGTTTGGGGTTGCCTAGCACTTGCTAACTTGTAAGTCACTCTTCCCTCACAG  
AAAGAAACGAAAGAAAGCAAAGCAAAGTCAGTGAAAGACAATCTTTATAGTTTCAGGAGTAAATCTAAATGTGGC  
TTTTGTCAAGCACTTAGATGGATATAAATGCAGCAACTTGTTTTAAAAAAATGCACATTTACTTCCAAAAAAGT  
TGTTACTTGCCTTTTCAAGTGTGACAACTCACATTTGATATTCTTATATGTTATAGTAATGTAACGTATAAA  
CTCAAGCCTTTTTTATTCTTTGTGATTAAATCCTGTTTTAAATGTCACAAAACAGGAACCAGCATTCTAATTAGA  
TTTACTATATCAAGATATGGTTCAAATAGGACTACTAGAGTTTATTGAACACTAAAACATGAAACAATTACTTT  
TTATATTAAGAAAGACCATGGATTTAACTTATGAAAATCCAAATGCAGGATAGTAATTTTTGTTTACTTTTTTAAC  
CAAACGAATTTTTGAAAGACTATTGCAGGTGTTTTAAAAAGAAAGAAAGTTGTTTTATCTAATACTGTAAGTAG  
TTGTCATATTCTGGAAAATTTAATAGTTTTAGAGTTAAGATATCTCCTCTCTTTGGTTAGGGAAGAAGAAAGCCC  
TTCACCATTGTGGAATGATGCCCTGGCTTTAAGGTTTAGCTCCACATCATGCTTCTCTT

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**FIGURE 327**

MSAAAYMDFVAAQCLVSI SNRAAVPEHGVAPDAERLRLPEREVTKEHGDPGDTWKDYCTLVTIAKSLLDLNKYRP  
IQTPSVCSDSLSPDEDMGSDSDVTTESGSSPSHSPEERQDPGSAPSPLSLLHPGVAAGKHASEKRHKCPYSGC  
GKVYGKSSHLKAHYRVHTGERPPCTWPDCLKKFSRDELTRHYRHTHTGEKQFRCPLCEKRFMRSDHLTKHARRH  
TEFHPSMIKRSKKALANAL



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**FIGURE 328A**

CACGTTGGGTGACATAATGGGGTTTTTTTAAATTATAGATTACACTGCATTTATTCATCACCCCTGTCCTCTCAT  
 CCATAACTCAAATTTACTACCAGCAACACAAAATACAAAGATGTGTCCAGTTTCACTACAGCTCTTCGCGTTTAC  
 AAGTGTGAGCGCTTGCTTTCGGAACGCCCTTGTGATTGGCCGAGCCAATGCCAGTGACATCAACCAACTTACTT  
 TTGATTGGAAGGCTGGTTGCTGGGACTGTAGCGTTTGCAGGAAGTCACTTAACTGTTTGGGAGCTGGAAAACCGA  
 AGCTGAAGTTCTCTTTTGCCATAGGAACGAGCGCAACTGACTAGGAAAAGATGTGTCCCAAAGCTCCGCAAGCTGG  
 AACGTGAGCCAGGAGGCCCGGACCGGCCACGGGACCGCGAGGCACTCCGAAAAGTGTGCGGCTGCCCTTCCCTGC  
 CTCCAGCTGTTACCCTTTTAAATGTCAGTGTTCGAGGCTGTAGGGGTAGCACGAGGCAGCGAAACGGAACAGTC  
 GGATTGGCCGCACGCCCTCAGTTCTAGACGCACCTCTCCACCGAAGCCGTTCTGACTGGCAGGGGGAGAAAGTAAA  
 CAGAGTTGAATCACCCCTCCCACTGGCCAATTGGAGGGGGTTTTGGTTTGTGACGTGATGGGATTCTGCGAAATTG  
 TTACTGAGCAAGAGAATGCCGGAACGTGCGGACCGGCCGAGCAGGGGTTGAGAAGCCGTGAGTGGACTCGGGAA  
 AAAGTGTCTCTTAGACCTGGCGCTCGGCGGGGCCCTCGCCACCCGCGTCGGGGTGATCGGGTGAATGTCCTGGGG  
 CTTTGGCTCGACGGCGAGGCGGCCGAGGGCGTGCACCTCTCTTGCAGTTTCCTCTCCAGCGCTCGGGGGCGTT  
 TTCAGTCGAATAAACTTGCAGCCGCCACGTGTGGCATCTTTCCAAGGGAGCCGGCTCAGAGGGGCCGGCGCGCCC  
 GTCGGGGGATCGCGGCCGGCGCGGGGACAGGGCGGGCGGCTAGAGGCGGGCGCGCGGCGGAGCCCGGGGGCGTGA  
 TGCTGCGTGCGGAGGCGCTGCCGTTACGTAAAGATGAGGGGCTGAGGTCGCTCGGCGCTCCTGCGAGTCGGAA  
 GCGCCCCGCGCCCCCGCCCCCTTGGCCGCCGCGCGCTGCCGGGCGGGCGGGTCTGCTCCGAGGCCAGGGAGGGC  
 GAGCCGAACCTCCGCAAGCCACCGCAAGTTTGTCCGCGCCGCTGGGCTGCCGTGCCCCGACCA**ATGT**CCGCGGC  
 CGCCTACATGGACTTCGTGGCTGCCAGTGTCTGGTTTCCATTTGCAACCGCGCTGCGGTGCCGGAGCATGGGGT  
 CGCTCCGGACGCCGAGCGGTGCGACTACCTGAGCGCGAGGTGACCAAGGAGCACGGTGACCCGGGGGACACCTG  
 GAAGGATTACTGCACACTGGTCACCATCGCCAAGAGCTTGTGGACCTGAACAAGTACCGACCCATCCAGACCCC  
 CTCCGTGTGCAGCGACAGTCTGGAAGTCCAGATGAGGATATGGGATCCGACAGCGACGTGACCACCGAATCTGG  
 GTCGAGTCCTTCCACAGCCCGGAGGAGAGACAGGATCCTGGCAGCGCGCCAGCCCGCTCTCCCTCCTCCATCC  
 TGGAGTGGCTGCGAAGGGGAAACACGCCTCCGAAAAGAGGCACAAGTGCCCTACAGTGGCTGTGGGAAAGTCTA  
 TGGAAAATCCTCCCATCTCAAAGCCATTACAGAGTGCATACAGGTGAACGGCCCTTCCCCTGCACGTGGCCAGA  
 CTGCCTTAAAAAGTTCTCCCGCTCAGACGAGCTGACCCGCCACTACCGGACCCACACTGGGGAAAAGCAGTTCCG  
 CTGTCCGCTGTGTGAGAAGCGCTTCATGAGGAGTGACCACCTCACAAAGCACGCCCGGCGGCACACCGAGTTCCA  
 CCCCAGCATGATCAAGCGATCGAAAAGGCGCTGGCCAACGCTTTG**TGAG**GGTGCTGCCCCTGGAAGCCAGGGAGG  
 GATGGACCCCCGAAAGGACAAAAGTACTCCAGGAAACAGACGCGTGAAAAGTGAAGCCAGAGGCACACTTG  
 ACGGCACAGGAAGTCACTGCTCTTTGGTCAATATTCTGATTTTCTCTCCCTGCATTGTTTTTAAAAAGCACATT  
 GTAGCCTAAGATCAAAGTCAACAACACTCGGTCCCCTTGAAGAGGCAACTCTCTGAACCCGCTCTCTGACTGTTGG  
 AGGGAAGGCAAATGCTTTTGGGTTTTTTGGTTTTTTGGTTTTTTTCTCCTTTTATTTTTTTGCGGGGA  
 GGGTAGGGAGTGGGTGGGGGGGAGGGGGTAAGGCCAAGACTGGGTAGATTTTAAAGATTCAACACTGGTGTACAT  
 ATGTCCGCTGGGTGAGTTGACCTGTGGCCTCGCACAGTGATTCTAGGCCCTTTATGCTTGCTGTCTCTCAGAATT  
 GTTTTCTTACCTTTTAAATGTAATGACGAGTGTGCTTCAGTTTGTTTAGCAAAACCACTCTCTGAATCACGTTAA  
 CTTTTGAGATTAAAAAAGGCGCATAGCACAGCTGTCTTTATGCAAGCAAGAGCACATCTACTCCAGCATGA  
 TCTGTCTCTAAAGACTTGAAAACAAAAACAGTTACTTATAGTCAATGGGTAAGCAGAGTCTGAATTTATACTA  
 ATCAAGACAAACCTTTGAAAGGTTACACTAAGTACAGAACTTTTAAACCTTGCTTTGTATGAGTTGTACTTTTTG  
 AACATAAGCTGCACTTTTATTTTCTAATGCAGAGGATGAATAAGTTAAATACATGCTTTGAGGATAGAAGCAGAT  
 GTTCTGTTTGGCACCACGTTATAATCTGCTTATTTTACAATATACACGTTTCCCTAAGAAATCATGCGCAGAGAT  
 GTGAGGGCAGAATATACACAACAGATGCTGAAGGAGAAGGAGGGTAGTGTTTGCAAAAGAAAAGAAAAGAACC  
 AACAGAATTTTAACTCTATTAACCTTTTCCAAATTTTCTATGCTTTTAGTTAACATCATTATTGTATCCTAATGC  
 CACTAGGGGAGAGAGCTTTTGACTCTGTGGGTTTTATTTGAATGTGTGCATAACAGTAATGAGATCTGGAACA  
 CCTATTTTTTGGGGAAAAAGGTTTGTGGTCTCCTTCTGTGTTTCTACAAAACCTCCACTCTCAGGTGCAAGAG  
 TTATGTAGAAGGAAAGGGAGCTGAAATAGGAACAGAAAAATCAACCCCTATACTAGTGAACACCAAGGGAAAT  
 ACCACAATGATTTTCAAGGAGACTCTGCAAAATCGTCCCTTGTGGAGAATGCAGGCAACATGGAATACTACGAAT  
 GAAATCACATCACTGTATCTTTTACATCAATAGCCTCACCCTAATATATCTTGTATCTAGGTGTCTATAATGGC  
 TGAAACCACTACATCCATCTATGCCATTTACCTGAAAACCTTAACTGTGGCCTTTATGAGGCCAGAAAAGTGAAC  
 GAGTTTTGTAGTTAAGACCTCAAATGAGGGGAGTCAGCAGTGATCATGGGGGAAATGTTTACATTTTTTTTTTCT

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**FIGURE 328B**

TCAGAAGTAACGCTTTCTGATGATTTTATCTGATATTTAAAACAGGGAGCTATGGTGCACTCTAGTTTATACTTG  
CGCTCTGAAATGTGTAAACATAGGGTGCCTACCTATTTACCTGACCCATACTCGTTTCTGATTCAGAATCAGTG  
TGGGCTCCTGCAGTGGGCGCGGGTCACGGCTGACTCCAACCTCCAATACAACAGCCATCACTAGCACAGTGTTTT  
TTTGTTTAACCAACGTAGTGTATTAGTAGTCTATAAAGAGAAGTGTCTTTAACATTAGGGACTGGGAGCAGTC  
CATGGGATAAAAAGGAAAGTGTTTTCTCACGAGAAAACATGTCAGGAAAAATAAAGAACACTTTCTACCTCTGTT  
TCAGATTTTTGAAACACTTATTTTAAACCAAATTTTAATTTCTGTGTCCAAAATAAGTTTTAAGGACATCTGTTT  
TTCCATACGAAATAGGTTAGGCTGCCTATTTCTCACTGAGCTCATGGAATGGTTCTGCTTATGATACTCTGCACG  
CTGCCTTTTAGTGAGTGAGGAGTTTGGGGTTGCCTAGCACTTGCTAACTTGTAAGAAAGTCATCTTTCCCTCACAG  
AAAGAAACGAAAGAAAGCAAAGCAAAGTCAGTGAAAGACAATCTTTATAGTTTCAGGAGTAAATCTAAATGTGGC  
TTTTGTCAAGCACTTAGATGGATATAAATGCAGCAACTTGTTTTAAAAAAATGCACATTTACTTCCAAAAAAGT  
TGTTACTTGCCTTTTCAAGTGTGACAACTCACATTTGATATTCTCTTATATGTTATAGTAATGTAACGTATAAA  
CTCAAGCCTTTTTATTCTTTGTGATTAAATCCTGTTTTAAATGTCACAAAACAGGAACCAGCATTCTAATTAGA  
TTTACTATATCAAGATATGGTTCAAATAGGACTACTAGAGTTCATTGAACACTAAACTATGAAACAATTACTTT  
TTATATTAAGAAAGACCATGGATTTAACTTATGAAAATCCAAATGCAGGATAGTAATTTTTGTTTACTTTTTTAAC  
CAAAGTGAATTTTTGAAAGACTATTGCAGGTGTTTTAAAAAGAAAGAAAGTTGTTTTATCTAATACTGTAAGTAG  
TTGTCATATTCTGGAAAATTTAATAGTTTTAGAGTTAAGATATCTCCTCTCTTTGGTTAGGGAAGAAGAAAGCCC  
TTCACCATTGTGGAATGATGCCCTGGCTTTAAGGTTTAGCTCCACATCATGCTTCTCTT

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**FIGURE 329**

MSAAAYMDFVAAQCLVSI SNRAAVPEHGVAPDAERLRLPEREVTKEHGDPGDTWKDYCTLVTIAKSLLDLNKYRP  
IQTPSVCSDSLSPDEDMGSDSDVTESGSSPSHSPEERQDPGSAPSPLSLLHPGVAAKGKHASEKRHKCPYSGC  
GKVYGKSSHLKAHYRVHTGERPFPCTWPDCLKKFSRDELTRHYRHTTGEKQFRCPLCEKRFMRSDHLTKHARRH  
TEFHPSMIKRSKKALANAL

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**FIGURE 330**

CACCGCGCAAGCGCATCCTGGCCTTTCTTCAGTCCCCACGTGCGATCCTTCCCGGCAACTTTTTTCGAGAAAAATG  
 CCCAAATTCAAGGCGGCCCGTGGGGTGGGGGGTCAGGAAAAACATGCGCCCCTGGCCGATCAGATCCTGGCTGGG  
 AATGCGGTGCGGGCGGGGGTCCGGGAGAAGCGGCGGGGTGCGGGACAGGAGAAGCGGAGGAAGAGTATGTGGGG  
 CCCC GGCTGAGCCGACGGATTTTGAGCAAGCACGGCAGCAACAGGAGGAACCTCGAGGCCGAGCATGGGACTGGG  
 GACAAGCCCGCGGCGCCGCGGGAACGCACCACGCGGCTGGGTCCAAGAATGCCTCAGGATGGATCAGATGACGAG  
 GACGAGGAGTGGCCACCCTGGAGAAGGCTGCCACAATGACAGCAGCGGGCCATCATGACAGAGGTGGTTGTGGAC  
 CCTGAGGATGAGCGTGCCATAGAGATGTT**CATGA**ACAAGAACCCTCCTGCCAGGCGCACCCCTGGCTGACATCATC  
 ATGGAGAAGCTGACTGAGAAGCAGACAGAGGTTGAGACAGTCATGTCAGAGGTGTCGGGCTTCCCTATGCCCCAG  
 CTGGACCCCCGGGTCCTAGAAGGTACAGGGGGGTCCGGGAGGTATTATCTAAGTACCGCAGTGGAAAAC TGCC  
 AAGGCATTTAAGATCATCCCTGCACTCTCCAAC TGGGAGCAAATCCTCTACGTCACAGAGCCGGAGGCCTGGACT  
 GCAGCTGCCATGTACCAGGCCACCAGGATTTTTGCCTCTAACCTGAAGGAACGCATGGCCCAGCGCTTCTACAAC  
 CTTGTCCTGCTCCCTCGAGTACGAGATGACGTTGCTGAATACAAACGACTCAACTTCCATCTCTACATGGCTCTC  
 AAGAAGGCCCTTTTCAAACCTGGAGCCTGGTTCAAAGGGATCCTGATTCCACTGTGCGAGTCTGGCACTTGTACC  
 CTCCGGGAAGCCATCATTGTGGGTAGCATCATCACCAAGTGCTCCATCCCTGTGTTGCACTCCAGTGCGGCCATG  
 CTGAAAATTGCTGAGATGGAATACAGCGGTGCCAACAGCATCTTCCTGCGACTGCTGCTGGATAAGAAGTATGCA  
 CTGCCTTACCGGGTGCTGGATGCCCTAGTCTTCCACTTCCTGGGGTTCCGGACAGAGAAGCGTGAAC TGCCTGTG  
 CTGTGGCACCAGTGCCCTCTGACTTTGGTCCAGCGCTACAAGGCCGACTTGGCCACAGACCAGAAAGAGGCCCTC  
 TTAGAACTGCTCCGGCTGCAGCCCCATCCACAGCTATCGCCGAAATCAGGCGTGAGCTTCAGAGTGCAGTCCCC  
 CGCGATGTGGAAGATGTTCCCATCACCGTGGAG**TGAG**GAAAACAGTCAGCTGTCTTGCCAAAGGGGTTTGGAAG  
 GACACCAAGACCCCCGTTGGTGACTGAAGATGACACTGAGCTTTAATGGCTGAAGACCCAGATCAGGGCAGTGAC  
 AGATCACAGGGACATCTGTGGCTCCCAGTCCAGGACAGGAAGGACTGAGGGTCTGGCTGGTTCCTCTTCCATT  
 TAGGCCCTTATCCCTGTTTAGTTCTGAGAGCCAACTTGAGATACCATATGCTAGCATCCCAGTCCCCAGCTGGG  
 GCTTGGTGTGAGTACTTTTTCTATGGCTATTGTGTGTCAGGTCACTGTGGATAAAGGCAAAGACAGATATTTATTGA  
 AAAAAAAAAAAAAAAAAAAAAAAAAA

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# **FIGURE 331**

MNKNPPARRTLADIIMEKLTEKQTEVETVMSEVSGFPMPQLDPRVLEVYRGVREVL  
SKYRSGKLPKAFKIIPALS  
NWEQILYVTEPEAWTAAAMYQATRIFASNLKERMAQRFYNLVLLPRVRDDVAEYKRLN  
FHYLMALKKALFKPGAW  
FKGILIPLCESGTCTLREAIIVGSIITKCSIPVLHSSAAMLKIAEMEYSGANSIFLRLL  
LDKKYALPYRVLDALV  
FHFLGFRTEKRELPVLWHQCLLTIVQRYKADLATDQKEALLELLRLQPHQLSPEIRRE  
LQSAVPRDVEDVPITV  
E

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**FIGURE 332A**

GTTGGCCCCCGTTACTTTTCTCTGCGGAAATATGGCGCACGCTGGGAGAACAGGGTACGATAACCGGGAGATAGT  
GATGAAGTACATCCATTATAAGCTGTGCGAGAGGGGCTACGAGTGGGATGCGGGAGATGTGGGCGCCGCGCCCC  
GGGGGCGCCCCCGCGCCGGGCATCTTCTCTCGCAGCCCGGGCACACGCCCCATACAGCCGCATCCCGGGACCC  
GGTCGCCAGGACCTCGCCGCTGCAGACCCCGGCTGCCCCCGCGCCGCCGCGGGGCTGCGCTCAGCCCGGTGCC  
ACCTGTGGTCCACCTGACCCTCCGCCAGGCCGGCGACGACTTCTCCCGCCGCTACCGCCGCGACTTCGCCGAGAT  
GTCCAGGCAGCTGCACCTGACGCCCTTACC CGCGCGGGGACGCTTTGCCACGGTGGTGGAGGAGCTCTTCAGGGA  
CGGGGTGAACCTGGGGGAGGATTGTGGCCTTCTTTGAGTTCGGTGGGGTCATGTGTGTGGAGAGCGTCAACCGGGA  
GATGTGCCCCCTGGTGGACAACATCGCCCTGTGGATGACTGAGTACCTGAACCGGCACCTGCACACCTGGATCCA  
GGATAACGGAGGCTGGGATGCCCTTGTGGAACGTACGGCCCCAGCATGCGGCCTCTGTTTGATTCTCTCTGGCT  
GTCTCTGAAGACTCTGCTCAGTTTGGCCCTGGTGGGAGCTTGATCACCCTGGGTGCCTATCTGGGCCACAAGTG  
AAGTCAACATGCCTGCCCCAAACAAATATGCAAAAGGTTCACTAAAGCAGTAGAAATAATATGCATTGTGCTAGTGA  
TGTTCCATGAAACAAAGCTGCAGGCTGTTTAAAGAAAAATAACACACATATAAACATCACACACACAGACAGACA  
CACACACACACAACAATTAACAGTCTTCAGGCAAAACGTGGAATCAGCTATTTACTGCCAAAGGGAAATATCATT  
TATTTTTTACATTATTAAGAAAAAAGATTTATTTATTTAAGACAGTCCCATCAAACTCCTGTCTTTGGAAATC  
CGACCACTAATTGCCAAGCACCGCTTCGTGTGGCTCCACCTGGATGTTCTGTGCCTGTAAACATAGATTGCGTTT  
CCATGTTGTTGGCCGATCACCATCTGAAGAGCAGACGGATGGAAAAAGGACCTGATCATTGGGGAAAGCTGGCTT  
TCTGGCTGCTGGAGGCTGGGGAGAAGGTGTTCACTTGCATTTCTTTGCCCTGGGGGCTGTGATATTAACAG  
AGGGAGGGTTCTGTGGGGGAAGTCCATGCCTCCCTGGCCTGAAGAAGAGACTCTTTGCATATGACTCACATGA  
TGCATACCTGGTGGGAGGAAAAGAGTTGGGAACCTCAGATGGACCTAGTACCCACTGAGATTTCCACGCCGAAGG  
ACAGCGATGGGAAAAATGCCCTTAAATCATAGGAAAGTATTTTTTAAAGCTACCAATTGTGCCGAGAAAAGCATT  
TTAGCAATTTATACAATATCATCCAGTACCTTAAGCCCTGATTGTGTATATTTCATATATTTTGGATACGCACCCC  
CCAATCCCAATACTGGCTCTGTCTGAGTAAGAAACAGAATCCTCTGGAACCTGAGGAAGTGAACATTTCCGTGA  
CTTCCGCATCAGGAAGGCTAGAGTTACCCAGAGCATCAGGCCGCCACAAGTGCCTGCTTTTAGGAGACCGAAGTC  
CGCAGAACCTGCCTGTGTCCCAGCTTGGAGGCCTGGTCTGGAACCTGAGCCGGGGCCCTCACTGGCCTCCTCCAG  
GGATGATCAACAGGGCAGTGTGGTCTCCGAATGTCTGGAAGCTGATGGAGCTCAGAATCCACTGTCAAGAAAGA  
GCAGTAGAGGGGTGTGGCTGGGCCTGTACCCTGGGGCCCTCCAGGTAGGCCCGTTTTTCAGTGGAGCATGGGAG  
CCACGACCCCTTCTTAAGACATGTATCACTGTAGAGGGAAGGAACAGAGGCCCTGGGCCCTTCCTATCAGAAGGAC  
ATGGTGAAGGCTGGGAACGTGAGGAGAGGCAATGGCCACGGCCCATTTTGGCTGTAGCACATGGCACGTTGGCTG  
TGTGGCCTTGGCCACCTGTGAGTTTAAAGCAAGGCTTTAAATGACTTTGGAGAGGGTCACAAATCCTAAAAGAA  
GCATTGAAGTGAGGTGTGATGATTAATTGACCCCTGTCTATGGAATTACATGTAAACATTATCTGTCACTGT  
AGTTTGGTTTTATTTGAAAACCTGACAAAAAAAAGTTCCAGGTGTGGAATATGGGGGTTATCTGTACATCCTGG  
GGCATTAAAAAAAATCAATGGTGGGGAACATAAAGAAGTAACAAAAGAAGTGACATCTTCAGCAAATAAACT  
AGGAAATTTTTTTTTCTTCCAGTTTAGAATCAGCCTTGAAACATTGATGGAATAACTCTGTGGCATTATTGCATT  
ATATACCATTTATCTGTATTAACCTTGGGAATGTACTCTGTTCAATGTTTAAATGCTGTGGTTGATATTTGAAAGC  
TGCTTTAAAAAATACATGCATCTCAGCGTTTTTTGTTTTTAATTGTATTTAGTTATGGCCTATACACTATTTG  
TGAGCAAAGGTGATCGTTTTCTGTTTGAGATTTTATCTCTTGATTCTTCAAAGCATTCTGAGAAGGTGAGATA  
AGCCCTGAGTCTCAGCTACCTAAGAAAAACCTGGATGTCACTGGCCACTGAGGAGCTTTGTTTCAACCAAGTCAT  
GTGCATTTCCACGTCAACAGAATTGTTTATTGTGACAGTTATATCTGTTGTCCCTTTGACCTTGTTTCTTGAAGG  
TTTCCTCGTCCCTGGGCAATTCCGCATTTAATTCATGGTATTCAGGATTACATGCATGTTTGGTTAAACCCATGA  
GATTCATTCAAGTTAAAAATCCAGATGGCAAATGACCAGCAGATTCAAATCTATGGTGGTTTGACCTTTAGAGAGT  
TGCTTTACGTGGCCTGTTTCAACACAGACCCACCCAGAGCCCTCCTGCCCTCCTTCCGCGGGGGCTTTCTCATGG  
CTGTCTTCAGGGTCTTCTGAAATGCAGTGGTGTCTACGCTCCACCAAGAAAGCAGGAAACCTGTGGTATGAAG  
CCAGACCTCCCCGCGGGGCTCAGGGAACAGAATGATCAGACCTTTGAATGATTCTAATTTTTAAGCAAAATATT  
ATTTTATGAAAGGTTTACATTGTCAAAGTGATGAATATGGAATATCCAATCCTGTGCTGCTATCCTGCCAAAATC  
ATTTTAAATGGAGTCAGTTTGCAGTATGCTCCACGTGGTAAGATCCTCCAAGCTGCTTTAGAAGTAACAATGAAGA  
ACGTGGACGCTTTTAAATATAAAGCCTGTTTTGTCTTCTGTTGTTGTTCAAACGGGATTACAGAGTATTTGAAAA  
ATGTATATATATTAAGAGGTCACGGGGGCTAATTGCTGGCTGGCTGCCTTTTGCTGTGGGGTTTTGTTACCTGGT  
TTTAATAACAGTAAATGTGCCCAGCCTCTTGCCCCAGAAGTGTACAGTATTGTGGCTGCACTTGCTCTAAGAGT

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**FIGURE 332B**

AGTTGATGTTGCATTTTCCTTATTGTTAAAAACATGTTAGAAGCAATGAATGTATATAAAAAGCCTCAACTAGTCA  
TTTTTTTCTCCTCTTCTTTTTTTTTCATTATATCTAATTATTTTGCAGTTGGGCAACAGAGAACCATCCCTATTTT  
GTATTGAAGAGGGATTACATCTGCATCTTAACTGCTCTTTATGAATGAAAAACAGTCCTCTGTATGTACTCCT  
CTTTACACTGGCCAGGGTCAGAGTTAAATAGAGTATATGCACCTTTCCAAATTGGGGACAAGGGCTCTAAAAAAG  
CCCCAAAAGGAGAAGAACATCTGAGAACCTCCTCGGCCCTCCCAGTCCCTCGCTGCACAAATACTCCGCAAGAGA  
GGCCAGAATGACAGCTGACAGGGTCTATGGCCATCGGGTCGTCTCCGAAGATTTGGCAGGGGCAGAAAACCTCTGG  
CAGGCTTAAGATTTGGAATAAAGTCACAGAATCAAGGAAGCACCTCAATTTAGTTCAAACAAGACGCCAACATTCT  
TCTCCACAGCTCACTTACCTCTCTGTGTTTCAGATGTGGCCTTCCATTTATATGTGATCTTTGTTTTATTAGTAAA  
TGCTTATCATCTAAAGATGTAGCTCTGGCCCAGTGGGAAAAATTAGGAAGTGATTATAAATCGAGAGGAGTTATA  
ATAATCAAGATTAAATGTAAATAATCAGGGCAATCCCAACACATGTCTAGCTTTCACCTCCAGGATCTATTGAGT  
GAACAGAATTGCAATAGTCTCTATTTGTAATTGAACTTATCCTAAAACAAATAGTTTATAAATGTGAACTTAA  
CTCTAATTAATTCCAAGTGTACTTTTAAAGGCAGTGGCTGTTTTAGACTTTCTTATCACTTATAGTTAGTAATGT  
ACACCTACTCTATCAGAGAAAAACAGGAAAGGCTCGAAATACAAGCCATTCTAAGGAAATTAGGGAGTCAGTTGA  
AATTCTATTCTGATCTTATTCTGTGGTGTCTTTTGCAGCCCAGACAAATGTGGTTACACACTTTTTAAGAAATAC  
AATTCTACATTGTCAAGCTTATGAAGGTTCCAATCAGATCTTTATTGTTATTCAATTTGGATCTTTTCAGGGATTT  
TTTTTTTAAATTATTATGGGACAAAGGACATTTGTTGGAGGGGTGGGAGGGAGGAACAATTTTTAAATATAAAAC  
ATTCCCAAGTTTGGATCAGGGAGTTGGAAGTTTTTCAGAATAACCAGAACTAAGGGTATGAAGGACCTGTATTGGG  
GTCGATGTGATGCCTCTGCGAAGAACCTTGTGTGACAAATGAGAAACATTTTGAAGTTTGTGGTACGACCTTTAG  
ATTCCAGAGACATCAGCATGGCTCAAAGTGCAGCTCCGTTTGGCAGTGCAATGGTATAAATTTCAAGCTGGATAT  
GTCTAATGGGTATTTAAACAATAAATGTGCAGTTTTAACTAACAGGATATTTAATGACAACCTTCTGGTTGGTAG  
GGACATCTGTTTCTAAATGTTTATTATGTACAATACAGAAAAAATTTTATAAAATTAAGCAATGTGAACTGAA  
TTGGAGAGTGATAATACAAGTCCTTTAGTCTTACCCAGTGAATCATTCTGTTCCATGTCTTTGGACAACCATGAC  
CTTGGACAATCATGAAATATGCATCTCACTGGATGCAAAGAAAATCAGATGGAGCATGAATGGTACTGTACCGGT  
TCATCTGGACTGCCCCAGAAAAATAACTTCAAGCAAACATCCTATCAACAACAAGGTTGTTCTGCATACCAAGCT  
GAGCACAGAAGATGGGAACACTGGTGGAGGATGGAAAGGCTCGCTCAATCAAGAAAATTCTGAGACTATTAATAA  
ATAAGACTGTAGTGTAGATACTGAGTAAATCCATGCACCTAAACCTTTTGGAAAATCTGCCGTGGGCCCTCCAGA  
TAGCTCATTTCATTAAGTTTTTCCCTCCAAGGTAGAATTTGCAAGAGTGACAGTGGATTGCATTTCTTTTGGGGA  
AGCTTTCTTTTGGTGGTTTTGTTTTATTATACCTTCTTAAGTTTTCAACCAAGGTTTGCTTTTGTGTTTGGATTACT  
GGGGTTATTTTTGTTTTAAATAAAAAATAAGTGTACAATAAGTGTGTTTGTATTGAAAGCTTTTGTATCAAGATT  
TTCATACTTTTACCTTCCATGGCTCTTTTTAAGATTGATACTTTTAAAGAGGTGGCTGATATTCTGCAACACTGTA  
CACATAAAAAATACGGTAAGGATACTTTACATGGTTAAGGTAAAGTAAGTCTCCAGTTGGCCACCATTAGCTATA  
ATGGCACTTTGTTTGTGTTGTTGGAAAAAGTCAATTGCCATTAACTTTCCTTGTCTGTCTAGTTAATATTGTG  
AAGAAAAATAAAGTACAGTGTGAGATACTG

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**FIGURE 333**

MAHAGRTGYDNREIVMKYIHYKLSQRGYEWDAAGDVGAAPGAAPAGIFSSQPGHTPHPAASRDPVARTSPLQTP  
AAPGAAAGPALSPVPPVVHLALRQAGDDFSRRYRGDFAEMSSQLHLTPFTARGRFATVVEELFRDGVNWGRIVAF  
FEFGGVMCVESVNREMSPLVDNIALWMTEYLNRLHTWIQDNGGWVGASGDVSLG



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**FIGURE 334**

GAGTGA CTCCACCGCCCGGAGCAGCGGTGCAGGACGCGCGTCTCCGCCGCCCGCGGTGACTTCTGCCTGCGCTCC  
TTCTCTGAACGCTCACTTCCGAGGAGACGCCGACG**ATGA**AAGACACCGTGGAAGGTTCTTCTGGGACTGCTGGGTG  
CTGCTGCGCTTGTCAACATCATCACCGTGCCCGTGGTTCTGCTGAACAAAGGCACAGATGATGCTACAGCTGACA  
GTCGCAAAACTTACACTCTAACTGATTACTTAAAAATACTTATAGACTGAAGTTATACTCCTTAAGATGGATTT  
CAGATCATGAATATCTCTACAAACAAGAAAATAATATCTTGGTATTCAATGCTGAATATGGAAACAGCTCAGTTT  
TCTTGGAGAACAGTACATTTGATGAGTTTGGACATTCTATCAATGATTATTCAATATCTCCTGATGGGCAGTTTA  
TTCTCTTAGAATACAACACTACGTGAAGCAATGGAGGCATTCTACACAGCTTCATATGACATTTATGATTTAAATA  
AAAGGCAGCTGATTACAGAAGAGAGGATTCCAAACAACACACAGTGGGTCACATGGTCACCAGTGGGTCATAAAT  
TGGCATATGTTTGGAAACAATGACATTTATGTTAAAATTGAACCAAATTTACCAAGTTACAGAATCATATGGACGG  
GGAAAGAAGATATAATATATAATGGAATAACTGACTGGGTTTATGAAGAGGAAGTCTTCAGTGCCTACTCTGCTC  
TGTGGTGGTCTCCAAACGGCACATTTTTTAGCATATGCCCAATTTAACGACACAGAAGTCCCACTTATTGAATACT  
CCTTCTACTCTGATGAGTCACTGCAGTACCCAAAGACTGTACGGGTTCCATATCCAAAGGCAGGAGCTGTGAATC  
CAACTGTAAAGTTCTTTGTTGTAAATACAGACTCTCTCAGCTCAGTCACCAATGCAACTTCCATACAAATCACTG  
CTCCTGCTTCTATGTTGATAGGGGATCACTACTTGTGTGATGTGACATGGGCAACACAAGAAAGATTTCTTTGC  
AGTGGCTCAGGAGGATTACAGAACTATTCGGTCATGGATATTTGTGACTATGATGAATCCAGTGGAAAGATGGAAC  
GCTTAGTGGCACGGCAACACATTGAAATGAGTACTACTGGCTGGGTTGGAAGATTTAGGCCTTCAGAACCTCATT  
TTACCCCTTGATGGTAATAGCTTCTACAAGATCATCAGCAATGAAGAAGGTTACAGACACATTTGCTATTTCCAAA  
TAGATAAAAAAGACTGCACATTTATTACAAAAGGCACCTGGGAAGTCATCGGGATAGAAGCTCTAACCAAGTGATT  
ATCTATACTACATTAGTAATGAATATAAAGGAATGCCAGGAGGAAGGAATCTTTATAAAATCCAACCTTAGTGACT  
ATACAAAAGTGACATGCCTCAGTTGTGAGCTGAATCCGGAAAGGTGTCAGTACTATTCTGTGTCATTTCAGTAAAG  
AGGGCAAGTATTATCAGCTGAGATGTTCCGGTCTGGTCTGCCCCCTTATACTCTACACAGCAGCGTGAATGATA  
AAGGGCTGAGAGTCCTGGAAGACAATTCAGCTTTGGATAAAATGCTGCAGAATGTCCAGATGCCCTCCAAAAAAC  
TGGACTTCATTATTTTGAATGAAACAAAATTTTGGTATCAGATGATCTTGCCTCCTCATTTTGATAAATCCAAGA  
AATATCCTCTACTATTAGATGTGTATGCAGGCCCATGTAGTCAAAAAGCAGACACTGTCTTCAGACTGAACTGGG  
CCACTTACCTTGCAAGCACAGAAAACATTATAGTAGCTAGCTTTGATGGCAGAGGAAGTGGTTACCAAGGAGATA  
AGATCATGCATGCAATCAACAGAAGACTGGGAACATTTGAAGTTGAAGATCAAATTGAAGCAGCCAGACAATTTT  
CAAAAATGGGATTTGTGGACAACAACGAATTGCAATTTGGGGCTGGTCATATGGAGGGTACGTAACCTCAATGG  
TCCTGGGATCGGGAAGTGGCGTGTTCAGTGTGGAATAGCCGTGGCGCCTGTATCCCGGTGGGAGTACTATGACT  
CAGTGTACACAGAACGTTACATGGGTCTCCCAACTCCAGAAGACAACCTTGACCATTACAGAAATTC AACAGTCA  
TGAGCAGAGCTGAAAATTTTAAACAAGTTGAGTACCTCCTTATTCATGGAACAGCAGATGATAACGTTCACTTTC  
AGCAGTCAGCTCAGATCTCCAAAGCCCTGGTCGATGTTGGAGTGGATTTCCAGGCAATGTGGTATACTGATGAAG  
ACCATGGAATAGCTAGCAGCACAGCACACCAACATATATATACCCACATGAGCCACTTCATAAAACAATGTTTCT  
CTTTACCT**TAG**CACCTCAAAATACCATGCCATTTAAAGCTTATTAAAACTCATTTTTGTTTTTATTATCTCAAAA  
CTGCACTGTCAAGATGATGATGATCTTTAAATAACACTCAAAATCAAGAACTTAAGGTTACCTTTGTTCCCAA  
ATTTATACCTATCATCTTAAAGTAGGGACTTCTGTCTTCACAACAGATTATTACCTTACAGAAGTTTGAATTATC  
CGGTCGGGTTTTATTGTTTTAAATCATTTCTGCATCAGCTGCTGAAACAACAAATAGGAATTGTTTTTATGGAGG  
CTTTGCATAGATTCCTGAGCAGGATTTTAACTTTTTCTAACTGGACTGGTTCAAATGTTGTTCTCTTCTTTAA  
AGGGATGGCAAGATGTGGGCAGTGATGTCACTAGGGCAGGGACAGGATAAGAGGGATTAGGGAGAGAAGATAGCA  
GGGCATGGCTGGGAACCAAGTCCAAGCATACCAACACGAGCAGGCTACTGTCAGCTCCCTCGGAGAAGAGCTG  
TTCACAGCCAGACTGGCACAGTTTCTGAGAAAGACTATTCAAACAGTCTCAGGAAATCAAATATGCAAAGCACT  
GACTTCTAAGTAAAACCACAGCAGTTGAAAAGACTCCAAAGAAATGTAAGGGAACTGCCAGCAACGCAGGCCCC  
CAGGTGCCAGTTATGGCTATAGGTGCTACAAAAACACAGCAAGGGTGATGGGAAAGCATTGTAAATGTGCTTTTA  
AAAAAAATACTGATGTTTCTAGTGAAAGAGGCAGCTTGAACTGAGATGTGAACACATCAGCTTGCCCTGTAA  
AAGATGAAAATATTTGTATCACAATCTTAACTTGAAGGAGTCCTGTCATCAATTTTTCTTATTTTCAATTTCTTG  
AGTGTCTTAATTAAGAATATTTTAACTTCCTTGACTCATTTTAAAAATGGAACATAAAATACAATGTTATG  
TATTATTATCCCATTTCTACATACTATGGAATTTCTCCAGTCATTTAATAAATGTGCCTTCATTTTTTC

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**FIGURE 335**

MKTPWKVLLGLLGAAALVTIITVPVLLNKGTDDATADSRKTYTLTDYLKNTYRLKLYSLRWISDHEYLYKQENN  
ILVFNAEYGNSSVFLENSTFDEFGHSINDYSISPDGQFILLEYNVVKQWRHSYTASYDIYDLNKRQLITEERIPN  
NTQWVTWSPVGHKLAYVWNNDIYVKIEPNLPSYRITWTGKEDIYNGITDWVYEEEEVFSAYSALWWSPNGTFLAY  
AQFNDTEVPLIEYSFYSDSLQYPKTVRVPYPKAGAVNPTVKFFVNTDSLSSVTNATSIQITAPASMLIGDHYL  
CDVTWATQERISLQWLRRIQNYSVMDICDYDESSGRWNCLVARQHIEMSTTGWVGRFRPSEPHFTLDGNSFYKII  
SNEEGYRHICYFQIDKKDCTFITKGTWEVIGIEALTSDYLYYISNEYKGMPPGGRNLYKIQLSDYTKVTCLSCELN  
PERCQYYSVSFSKEAKYYQLRCSGPGPLPLYTLHSSVNDKGLRVLEDNSALDKMLQNVQMP SKKLD FII LNETKFW  
YQMILPPHFDKSKKYPLLLDVYAGPCSQKADTVFRLNWATYLASTENIIVASFDRGSGYQGD KIMHAINRRLGT  
FEVEDQIEAARQFSKMGFVDNKRIAIWGSYGGYVTSMVLGSGSGVFKCGIAPVSRWEYYDSVYTERYMGLPT  
PEDNLDHYRNSTVMSRAENFKQVEYLLIHGTADDNVHFQQSAQISKALVDVGVD FQAMWYTDEDHG IASSTAHQH  
IYTHMSHF IKQCFSLP

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**FIGURE 336**

CGCGCGTCTCCGCCGCCCGCGTGAAGTCTCTGCCTGCGCTCCTTCTCTGAACGCTCACTTCCGAGGAGACGCCGACG  
**ATGA**AAGACACCGTGGAAGATTCTTCTGGGACTGCTGGGTGCTGCTGCGCTTGTCACCATCATCACCGTGCCCGTG  
GTTCTGCTGAACAAAGGCACAGATGATGCTACAGCTGACAGTCGCAAACTTACACTCTAACTGATTACTTAAAA  
AATACTTATAGACTGAAGTTATACTCCTTAAGATGGATTTCAGATCATGAATATCTCTACAAACAAGAAAATAAT  
ATCTTGGTATTCAATGCTGAATATGGAAACAGCTCAGTTTTCTTGAGAACAGTACATTTGATGAGTTTGGACAT  
TCTATCAATGATTATTCAATATCTCCTGATGGGCAGTTTTATTCTCTAGAATACAACCTACGTGAAGCAATGGAGG  
CATTCCCTACACAGCTTCATATGACATTTATGATTTAAATAAAAGGCAGCTGATTACAGAAGAGAGGATTCCAAAC  
AACACACAGTGGGTCACATGGTCACCAGTGGGTCATAAATTGGCATATGTTTGAACAATGACATTTATGTTAAA  
ATTGAACCAAATTTACCAAGTTACAGAATCACATGGACGGGGAAAGAAGATATAATATATAATGGAATAACTGAC  
TGGGTTTATGAAGAGGAAGTCTTCAGTGCCTACTCTGCTCTGTGGTGGTCTCCAAACGGCACTTTTTTAGCATAT  
GCCCAATTTAACGACACAGAAGTCCCACTTATTGAATACTCCTTCTACTCTGATGAGTCACTGCAGTACCCAAAG  
ACTGTACGGGTTCCATATCCAAAGGCAGGAGCTGTGAATCCAACCTGTAAAGTTCTTTGTTGTAAATACAGACTCT  
CTCAGCTCAGTCACCAATGCAACTTCCATACAAATCACTGCTCCTGCTTCTATGTTGATAGGGGATCACTACTTG  
TGTGATGTGACATGGGCAACACAAGAAAGATTTCTTTGCGAGTGGCTCAGGAGGATTACAGAACTATTCCGGTCATG  
GATATTTGTGACTATGATGAATCCAGTGGAGATGGAAGTCTTAGTGGCACGGCAACACATTGAAATGAGTACT  
ACTGGCTGGGTTGGAAGATTTAGGCCTTCAGAACCTCATTTTACCCTTGATGGTAATAGCTTCTACAAGATCATC  
AGCAATGAAGAAGGTTACAGACACATTTGCTATTTCCAAATAGATAAAAAAGACTGCACATTTATTACAAAAGGC  
ACCTGGGAAGTCATCGGGATAGAAGCTCTAACAGTGATTATCTATACTACATTAGTAATGAATATAAAGGAATG  
CCAGGAGGAAGGAATCTTTATAAAATCCAACCTATTGACTATACAAAAGTGACATGCCTCAGTTGTGAGCTGAAT  
CCGGAAAGGTGTCAGTACTATTCTGTGTCATTAGTAAAGAGGCGAAGTATTATCAGCTGAGATGTTCCGGTCTCT  
GGTCTGCCCCCTCTACTCTACACAGCAGCGTGAATGATAAAGGGCTGAGAGTCTTGAAGACAATTCAGCTTTG  
GATAAAATGCTGCAGAAATGTCCAGATGCCCTCCAAAAACTGGACTTCATTATTTTGAATGAAACAAAATTTTGG  
TATCAGATGATCTTGCCCTCCTCATTTTGATAAATCCAAGAAATATCCTCTACTATTAGATGTGTATGCAGGCCCA  
TGTAAGTCAAAAAGCAGACACTGTCTTCAGACTGAACTGGGCCACTTACCTTGCAAGCACAGAAAACATTATAGTA  
GCTAGCTTTGATGGCAGAGGAAGTGGTTACCAAGGAGATAAGATCATGCATGCAATCAACAGAAGACTGGGAACA  
TTTGAAGTTGAAGATCAAATTGAAGCAGCCAGACAATTTTCAAAAATGGGATTTGTGGACAACAAACGAATTGCA  
ATTTGGGGCTGGTCATATGGAGGGTACGTAACCTCAATGGTCTCGGGATCGGGAAGTGGCGTGTTCAGTGTGGA  
ATAGCCGTGGCGCCTGTATCCCGGTGGGAGTACTATGACTCAGTGTACACAGAACGTTACATGGGTCTCCCAACT  
CCAGAAGACAACCTTGACCATTACAGAAATTCAACAGTCATGAGCAGAGCTGAAAATTTTAAACAAGTTGAGTAC  
CTCCTTATTCAATGAACAGCAGATGATAACGTTCACTTTACGAGTCAGCTCAGATCTCCAAAGCCCTGGTTCGAT  
GTTGGAGTGGATTTCCAGGCAATGTGGTATACTGATGAAGACCATGGAATAGCTAGCAGCACAGCACACCAACAT  
ATATATACCCACATGAGCCACTTCATAAAACAATGTTTCTCTTTACCT**TAG**CACCTCAAATACCATGCCATTTA  
AAGCTTATTAAACTCATTTTTGTTTTTATTATCTCAAACTGCAGTGTCAAGATGATGATGATCTTTAAATAC  
ACACTCAAATCAAGAACTTAAGGTTACCTTTGTTCCCAAATTCATACCTATCATCTTAAGTAGGGACTTCTGT  
CTTCACAACAGATTATTACCTTACAGAAGTTTGAATTATCCGGTCCGGTTTTATTGTTTAAATCATTTCTGCAT  
CAGCTGCTGAAACAACAAATAGGAATTGTTTTATGGAGGCTTTGCATAGATTCCCTGAGCAGGATTTTAATCTT  
TTTCTAACTGGACTGGTTCAAATGTTGTTCTCTCTTTAAAGGGATGGCAAGATGTGGGCAGTGATGTCCTAGG  
GCAGGGACAGGATAAGAGGGATTAGGGAGAGAAGATAGCAGGGCATGGCTGGGAACCAAGTCCAAGCATAACAA  
CACGAGCAGGCTACTGTCAGCTCCCTCGGAGAAGAGCTGTTACCCACGAGACTGGCACAGTTTTCTGAGAAAGA  
CTATTCAAACAGTCTCAGGAAATCAAATATCGAAAGCACTGACTTCTAAGTAAACCACAGCAGTTGAAAGACTCC  
AAAGAAATGTAAGGGAACTGCCAGCAACGCAGCCCCAGGTGCCAGTTATGGCTATAGGTGCTACAAAACACA  
GCAAGGGTGATGGGAAAGCATTGTAAATGTGCTTTTAAAAAAAATACTGATGTTTCTAGTGAAAGAGGCAGCTT  
GAAACTGAGATGTGAACACATCAGCTTGCCCTGTATAAAGATGAAAAATTTTGTATCACAATCTTAACCTGAAG  
GAGTCTTGCATCAATTTTTCTTATTTTCAATTTCTTTGAGTGTCTTAATTAAAGAATATTTTAACTTCCTTGGAC  
TCATTTTAAAAAATGGAACATAAAATACAATGTTATGTATTATTATCCCATTTCTACATACTATGGAATTTCTCC  
CAGTCATTTAATAAATGTGCCTTCATTTTTTC

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**FIGURE 337**

MKTPWKILLGLLGAAALVTIITVPVLLNKGTDATADSRKTYTLTDYLNKNTYRLKLYSLRWISDHEYLYKQENN  
ILVFNAEYGNSSVFLENSTFDEFGHSINDYSISPDGQFILLEYNVVKQWRHSYTASYDIYDLNKRQLITEERIPN  
NTQWVTWSPVGHKLAYVWNNDIYVKIEPNLPSYRITWTGKEDIYNGITDWVYEEVFSAVSALWWSPNGTFLAY  
AQFNDTEVPLIEYSFYSDSLQYPKTVRVPYPKAGAVNPTVKFFVNTDSLSSVTNATSIQITAPASMLIGDHYL  
CDVTWATQERISLQWLRRIQNYSVMDICDYDESSGRWNCLVARQHIEMSTGWVGRFRPSEPHFTLDGNSFYKII  
SNEEGYRHICYFQIDKKDCTFITKGTWEVIGIEALTSDYLYYISNEYKGMPPGGRNLYKIQILIDYTKVTCLSCELN  
PERCQYYSVSFSKEAKYYQLRCSGPGLPLYTLHSSVNDKGLRVLEDNSALDKMLQNVQMPSKKLDFIILNETKFW  
YQMILPPHFDKSKKYPLLLDVYAGPCSQKADTVFRLNWATYLASTENIIVASFDRGSGYQGDKIMHAINRRLGT  
FEVEDQIEAARQFSKMGFVDNKRIAIWGWSYGGYVTSMVLGSGGVFKCGIAPVSRWEYYDSVYTERYMGLPT  
PEDNLDHYRNSTVMSRAENFKQVEYLLIHGTADDNVHFQQSAQISKALVDVGVDQAMWYTDEDHGIASSTAHQH  
IYTHMSHFIKQCFSLP

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**FIGURE 338**

AAGTGCTGCGAGCCCTGGGCCACGCTGGCCGTGCTGGCAGTGGGCCGCCTCGATCCCTCTGCAGTCTTTCCCTTG  
 AGGCTCCAAGACCAGCAGGTGAGGCCTCGCGGCGCTGAAACCGTGAGGCCCGGACCACAGGCTCCAGATGGACCC  
 TGGGAAGGACAAAGAGGGGGTGCCCCAGCCCTCAGGGCCGCCAGCAAGGAAGAAATTTGTGATACCCCTCGACGA  
 GGATGAGTCCCTCCTGGAGTGGCCAAGCCCTTATTCCGATCTACACAGAGCCTTCCCCTGTGGACACCTCGGC  
 CCAGGCGGCCCTCAGACCTACGCCGAATATGCCATCTCACAGCCTCTGGAAGGGGCTGGGGCCACGTGCCCCAC  
 AGGGTCAGAGCCCCCTGGCAGGAGAGACGCCCCAACCAGGCCCTGAAACCCGGGGCAAAATCCAACAGCATCATTGT  
 GAGCCCTCGGCAGAGGGGCAATCCCGTACTGAAGTTCGTGCGCAACGTGCCCTGGGAATTTGGCGACGTAATTCC  
 CGACTATGTGCTGGGCCAGAGCACCTGTGCCCTGTTCCCTCAGCCTCCGCTACCACAACCTGCACCCAGACTACAT  
 CCATGGGCGGCTGCAGAGCCTGGGAAGAAGTTCGCCTTGCGGGTCTTGCTTGTCCAGGTGGATGTGAAAGATCC  
 CCAGCAGGCCCTCAAGGAGCTGGCTAAGATGTGTATCCTGGCCGACTGCACATTGATCCTCGCCTGGAGCCCCGA  
 GGAAGCTGGGCGGTACCTGGAGACCTACAAGGCCTATGAGCAGAAACCAGCGGACCTCCTGATGGAGAAGCTAGA  
 GCAGGACTTCGTCTCCCGGGTGACTGAATGTCTGACCACCGTGAAGTCAGTCAACAAAACGGACAGTCAGACCCT  
 CCTGACCACATTTGGATCTCTGGAACAGCTCATCGCCGCATCAAGAGAAGATCTGGCCTTATGCCCAGGCCTGGG  
 CCTCAGAAAGCCCGGAGGCTGTTTGATGTCTGACGAGCCCTTCTTGAAAGTACCCTTGATGACCCCAGCTGCC  
 AAGGAAACCCCCAGTGTAATAATAAATCGTCCTCCCAGGCCAGGCTC

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**FIGURE 339**

MDPGKDKEGVPPQPSGPPARKKFVIPLDEDEVPPGVAKPLFRSTQSLPTVDTSAQAAPQTYAEYAI SQPLEGAGAT  
CPTGSEPLAGETPNQALKPGA KSNSIIVSPRQRGNPVLKFVRNVPWEFGDVIPDYVLGQSTCALFLSLRYHNLHP  
DYIHGRLQSLGKNFALRVLLVQVDVKDPQQALKELAKMCILADCTLILAWSPEEAGRYLETYKAYEQPADLLME  
KLEQDFVSRVTECLTTVKSVNKTD SQTLTTFGSLEQLIAASREDLALCPGLGPQKARRLFDVLHEPFLKVP

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**FIGURE 340A**

GCCAGCGATCAGAGCAGCGCTGGGTGTTTCAGGGGCCAAG**ATG**CGGCGCGCCGGGGACGGAGAGACGGAGTCGCG  
 CCGCCCCGAGTGGGGGCCCGGTCCGGACCCTGGCGGGGAGCCCGCGGCAGTGGTTGGCGAAGTCGAAGCCAA  
 GCGCCGTATGGGACTTTGGGCGCTGTGAGCGGCGGCGAGCAGGTGCTGCTGCATGAGGAGGCGGGTGATTCTGGC  
 TTTGTCACTCTCTCTCGGCAGGGCCCCATCTCTGAGGGACAAGGACCTGGAAATGGAGGAGCTAATGCTGCAGGAT  
 GAGACACTGCTGGGGACCATGCAGAGCTACATGGATGCCTCCCTTATCTCCCTCATTGAGGATTTTGGGAGCCTT  
 GGAGAGAGCAGGTTATCTCTGGAGGACCACAATGAAGTGTGCTGCTCACGGCTCTGACGGAGATCTTGGACAAT  
 GCAGATTCTGAGAACCTTTCTCCATTTGACAGCATTCTGATTTCGGAGCTGCTTGTGTACCCCGGGAGGGCTCC  
 TCTCTGCACAAGCTGCTTACTCTCTCTCGGACACCCCCAGAACGTGACCTCATCACCCAGTTGACCCACTGGGG  
 CCCAGTACGGGCAGCAGTAGAGGGAGTGGGGTTGAAATGTCTCTTCCAGATCCCTCTTGGGACTTCTCCCCACCC  
 TCTTTCTTAGAGACCTCTTCCCCAAGCTTCCCTAGCTGGAGACCCCCAAGATCAAGACCACGCTGGGGCCAATCC  
 CCACCTCCCCAGCAGCGCAGTGATGGAGAAGAAGAGGAGGAGGTGGCCAGCTTCAGTGGCCAGATTCTTGCCGGG  
 GAGCTTGACAACCTGTGTGAGCAGTATCCCGGACTTCCCCATGCATTTGGCCTGCCCTGAGGAGGAAGATAAAGCA  
 ACAGCAGCAGAGATGGCAGTGCCAGCAGCTGGTGATGAGAGCATCTCCTCCCTGAGTGAGCTGGTGCGGGCCATG  
 CACCCATACTGCCTGCCCCAACCTCACCCACCTGGCATCACTTGAGGATGAGCTTCAGGAGCAGCCAGATGATTG  
 AACTGCGCTGAGGGCTGCGTAGTGCTGGAGATTGTGGGGCAGGCAGCCACAGCTGGCGATGACCTGGAGATCCCA  
 GTTGTGGTGCGACAGGTCTCTCCTGGACCCCGGCCTGTGCTCCTGGATGACTCGCTAGAGACTAGTTCTGCCTTG  
 CAGCTGCTTATGCCTACACTGGAGTCAGAGACAGAGGCTGCTGTGCCCAAGGTAACCTCTGCTCTGAGAAAGAG  
 GGGTTGTCAATTGAACTCAGAGGAGAAGCTGGACTCAGCCTGCTTATTGAAGCCCAGGGAGGTCGTGGAGCCGGTG  
 GTGCCCAAGGAGCCTCAGAACCCACCTGCCAATGCAGCACCAGGTTCCCAGAGAGCTCGAAAGGGCAGGAAGAAG  
 AAGAGCAAGGAGCAGCCAGCAGCCTGTGTGGAAGGCTATGCCAGGAGGCTGAGGTCATCTTCTCGCGGGCAGTCT  
 ACTGTAGGTACAGAAGTGACCTCTCAGGTAGACAACCTTGCAAGAACAGCCTCAGGAAGAAGCTTCAAAAAGAGTCT  
 GGGCCTCTCCAGGGTAAGGGGAAGCCCCGGGCTTGGGCTCGGGCCTGGGCAGCTGCCTTGGAGAATTCTAGCCCT  
 AAGAAGTTGGAGAGAAGTGCTGGACAAAGTAGTCTGCTAAAGAAGGCCCTCTAGACCTCTACCCAAAGCTGGCT  
 GACACTATCCAAACCAATCCTATACCAACCCATCTCTCATTGGTCGACTCTGCCAAGCCAGCCCCATGCCAGTT  
 GACTCTGTTGAAGCTGATCCCACTGCAGTTGGCCCTGTTCTAGCTGGCCCTGTACCTGTTGACCCTGGGTTGGTT  
 GACCTTGCTTCAACCAGCTCAGAACTGGTTGAGCCTCTCCCGCTGAGCCAGTGCTGATCAACCCAGTCTGGCT  
 GACTCAGCAGCAGTTGACCCTGCAGTGTTCCCATCTCAGATAACTTGCCACCAGTTGATGCTGTCCCGTCTGGC  
 CCAGCACCAGTTGATCTAGCACTGGTTGACCCTGTTCTTAATGACCTGACTCCAGTTGACCAGTGCTAGTTAAG  
 TCCAGACCAACTGATCCAGACGTGGTGAGTGTCATCAGCCCTGGGGGGTTCAGCACCCAGCTCCTCGTGAG  
 TCAGAGTCTTTGGACCCACCAAGACCATCATCCCTGAAGTCAAAGAGGTTGTGGATTCTCTGAAAATTGAAAGT  
 GGTACCAGTGCTACAACCCATGAAGCCAGACCTCGGCCTCTCAGCTTATCTGAGTACCGGCGACGAAGGCAGCAA  
 CGCCAAGCAGAAAACAGAAGAGAGAAGTCCACAGCCCCCAACTGGGAAGTGGCCTAGCCTTCCAGAGACTCCCACA  
 GGGCTGGCAGACATCCCTTGTCTGTGTCATCCACCAGCCCCAGCCAAGAAGACAGCTCTGCAGAGAAGCCCTGAA  
 ACACCCCTTGAGATTGTCCTTGTGCTGTAGGTCCAGCCCTGCTTCTCCTAGTCTGAGCCACCTGTAAGCAAA  
 CCTGTGGCCTCATCTCCCACTGAGCAGGTGCCATCCAGGAGATGCCACTGTTGGCGAGACCTTCCCTCCTGTG  
 CAGTCTGTGTCCCTGCTGTGCCCACACCTCCCTCGATGTCTGCTGCCCTGCCTTCCCTGCAGGTGGGCTTGGC  
 ATGCCCCCAGTCTGCCCCACCTCCCTTGCAGCCTCCTAGTCTTCCATTGTCTATGGGGCCAGTACTACCTGAT  
 CCGTTTACTCACTATGCCCCCTTGCCATCCTGGCCTTGTATCCTCATGTGTCCCTTCTGGCTATCCTTGCCTG  
 CCCCCCCCACCAACGGTGCCCTAGTGTCTGGTACTCCTGGTGCCATGCGGTGCCTCCCACTTGCAGTGTGCTT  
 TGGGCACCCCTCCTGCCCCAGTCTCACCTTACAGTTCCACATGTACCTATGGGCCCTTGGGATGGGGCCAGGG  
 CCTCAACATGCTCCATTCTGGTCTACTGTTCCCCACCTCCTTTGCCCTCCAGCCTCCATTGGGAGAGCTGTTCCC  
 CAACCTAAATGGAGTCTAGGGGCACTCCAGCTGGCCCTCCTGAAAATGTACTTCCCTTGTGATGGCTCCTCCC  
 CTCAGTCTTGGGCTACCTGGCCATGGAGCTCCTCAGACAGAGCCTACCAAGGTGGAGGTCAAGCCAGTGCCCTGCA  
 TCTCCCCATCCGAAACACAAGGTGTCTGCCCTGGTGCAAAGTCCCCAGATGAAGGCTCTAGCATGTGTGTCTGCT  
 GAAGGTGTGACTGTTGAGGAGCCTGCATCAGAGAGGCTAAAGCCTGAGACCCAAGAGACCAGGCCAGGGAGAAG  
 CCCCCCTTGCTGTACCAAGGCTGTTCCACACCAAGGCAGAGCACTGTCCCCAAGCTGCCTGCTGTCCACCCA  
 GCCCGTCTAAGGAAGCTGTCTTCTGCTACCCACGTAAGGTTCTGAAGATGTGGTACAGGCTTTCATC  
 AGTGAGATTGGAATTGAGGCATCGGACCTGTCCAGTCTGCTGGAGCAGTTTGAGAAATCAGAAGCCAAAAGGAG

**FIGURE 340B**

TGTCCTCCTCCGGCTCCTGCTGACAGCTTGGCTGTAGGAAACTCAGGCGGCGTTGACATTCCCCAGGAGAAGAGG  
CCCCTAGACCGGTTACAAGCCCCAGAACTGGCCAACGTGGCAGGGCTCACCCCTCCAGCTACCCCTCCCCACCAG  
TTATGGAAGCCCCCTGGCTGCTGTCTCACTGCTGGCCAAAGCCAAATCTCCTAAGTCCACCGCCCAGGAGGGAACC  
CTGAAGCCTGAAGGAGTTACGGAGGCCAAACATCCAGCTGCAGTTCGCCTCCAAGAAGGGGTCCATGGCCCTAGT  
CGAGTCCATGTGGGCTCTGGGGACCATGACTATTGTGTCCGGAGCAGGACCCCCCAAAAAGATGCCTGCCCTA  
GTCATTCCAGAGGTGGGCTCCCGATGGAATGTCAAGCGCCATCAGGACATCACCATCAAACCTGTCTTGTCTTG  
GGCCAGCTGCCCCCTCCGCCCCCATGCATAGCTGCCTCCCGGGAGCCGCTTGATCACAGGACTAGCAGTGAGCAG  
GCAGATCCCTCAGCACCTGCCTTGCCCCATCCAGCTTGCTGTCCCTGAGGCCTCACCTGCCGGAATGACATG  
AACACTAGGACTCCCCCTGAACCCTCAGCCAAGCAGCGGTCAATGCGCTGTTACCGAAAAGCCTGCAGGTCAGCC  
AGCCCCCTCAAGCCAGGGCTGGCAGGGCCGCCGAGGCCGCAACAGCCGTTCTGTGAGCTCTGGGTCCAACCGGACT  
AGCGAAGCATCTTCCTCATCCTCATCATCGTCTTCCTCATCCCGATCTCGGTCCAGGTCCCTCTCCCCCCCACAC  
AAGAGGTGGCGAAGGTCCAGCTGTAGTTCCCTCTGGACGTTCTCGAAGATGCTCTTCCTCTTCTTCGTCATCATCT  
TCCTCTTCGTCTTCCTCATCCTCATCATCCAGTTCTCGAAGCCGCTCACGATCCCCATCCCCCGCCGGAGAAGT  
GACAGGAGGCGGCGGTACAGCTCTTATCGTTCACATGACCATTACCAAAGGCAAAGAGTGCTACAAAAGGAGCGT  
GCAATAGAAGAAAGAAGGGTGGTCTTCATTGGAAAGATACCTGGCCGCATGACTCGATCAGAGCTGAAACAGAGG  
TTCTCCGTTTTTGGAGAGATTGAGGAGTGACCATCCACTTCCGTGTCCAAGGGGACAACACGGCTTCGTCACT  
TATCGCTATGCTGAGGAGGCATTTCAGCCATTGAGAGTGGCCACAAGCTGCGGCAGGCAGATGAGCAGCCCTTT  
GATCTCTGCTTTGGGGGCCGAAGGCAGTTCTGCAAGAGGAGCTATTCTGATCTTGACTCCAACCGGGAAGACTTT  
GACCCAGCACCTGTAAAGAGCAAATTTGATTCTCTTGACTTTGACACATTGTTGAAACAGGCCCAGAAGAACCTC  
AGGAGGTAACTTGGGCCCTTCCCTGCTATCCTTTTTCTCCTTTGGAGGTGCCCAACCTCCTCCACCCCTTCCC  
CTACTCTAGGGGAGAGAGCTGCTAGTGAGATGACTGTTTTATAAAGAAATGGAAAAAAGTGAAATAAAAAATATG  
TTGAATCAGATTTTTTAAAAGGGGTATTTGTTTTTTTATAACAGGTATTGAAACAAGTTAACTTGCAATTCCTATG  
TAAGATAGGAGGGGCTGAGGGGATCCCCAGTGTTTGAACATAAGTCACTATGCAGACTAATAAACATCAACTAG  
AGAGAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 341**

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**FIGURE 342**

CCGGAAGTGACTGCGGACGAATCGGCGTTTGCCGAGGCTGGCATAGATTGGCTGTCTCCGCTCATAGCTGCTTT  
TGGCGCGAAAGATGCCGGGTCTGGTTGACTCAAACCCTGCCCCGCCTGAGTCTCAGGAGAAGAAGCCGCTGAAGC  
CCTGCTGCGCTTGCCCGGAGACCAAGAAGGCGCGCATGCGTGTATCATCGAGAAAGGAGAAGAACA~~CT~~GTGGAC  
ATCTAATTGAGGCCCAAGGAATGCATGAGAGCCCTAGGATTTAAAAATTGAAATGGTGGTCTGCTGTGTGAAT  
AAATAATTCCTGAAGAATGAAGAAGATTAATTTGGGAGTTCTTTGACGAACTTTGATATGTGGAAAAAGTATTT  
ATAATTTATTGTAAGAAGAAAGTAAAATATTACTAGTGGAAGATCTTC

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**FIGURE 343**

MPGLVDSNPAPPESQEKKPLKPCACPETKKARDACII EKGEEHCGHLIEAHKECMRALGFKI

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**FIGURE 344**

ATCCAATACAGGAGTGACTTGGAATCCATTCTATCACTATGAAGAAAAGTGGTGTCTTTTCTCTTGGGCATC  
ATCTTGCTGGTTCTGATTGGAGTGCAAGGAACCCAGTAGTGAGAAAGGGTCGCTGTTCTGTCATCAGCACCAAC  
CAAGGGACTATCCACCTACAATCCTTGAAAGACCTTAAACAATTTGCCCAAGCCCTTCTGCGAGAAAATTGAA  
ATCATTGCTACACTGAAGAATGGAGTTCAAACATGTCTAAACCCAGATTTCAGCAGATGTGAAGGAAGTATTGAA  
AAGTGGGAGAAAACAGGTCAGCCAAAAGAAAAGCAAAAGAATGGGAAAAAACATCAAAAAAGAAAGTTCTGAAA  
GTTGCAAAAATCTCAACGTTCTCGTCAAAAGAAGACTACATAAGAGACCCTTCACCAATAAGTATTCTGTGTAA  
AAATGTTCTATTTTAATTATACCGCTATCATTCCAAAGGAGGATGGCATATAATACAAAGGCTTATTAATTTGAC  
TAGAAAATTTAAACATTACTCTGAAATTGTAAGTAAAGTTAGAAAAGTTGATTTTAAGAATCCAAACGTTAAGAA  
TTGTTAAAGGCTATGATTGTCTTTGTTCTTCTACCACCCACCAGTTGAATTTTCATCATGCTTAAGGCCATGATTT  
TAGCAATACCCATGTCTACACAGATGTTACCCCAACCACATCCCACTCACAACAGCTGCCTGGAAGAGCAGCCCT  
AGGCTTCCACGTACTGCAGCCTCCAGAGAGTATCTGAGGCACATGTCAGCAAGTCCTAAGCCTGTTAGCATGCTG  
GTGAGCCAAGCAGTTTGAATTTGAGCTGGACCTCACCAGCTGCTGTGGCCATCAACCTCTGTATTTGAATCAGC  
CTACAGGCCTCACACACAATGTGTCTGAGAGATTTCATGCTGATTGTTATTGGGTATCACCCTGGAGATCACCAG  
TGTGTGGCTTTTCAGAGCCTCCTTTCTGGCTTTTGAAGCCATGTGATTCCATCTTGCCCGCTCAGGCTGACCCTT  
TATTTCTTTTTGTTCCCTTTGCTTCATTCAAGTCAGCTCTTCTCCATCCTACCACAATGCAGTGCCTTTCTCT  
CTCCAGTGACCTGTCTATGCTCTGATTTATCTGAGTCAACTCCTTTCTCATCTTGTCCTCAACACCCACAGA  
AGTGCTTTCTTCTCCCAATTCATCTCACTCAGTCCAGCTTAGTTCAAGTCCTGCCTCTTAAATAAACCTTTTTG  
GACACACAAATTATCTTAAACTCCTGTTCACTTGGTTTCAGTACCACATGGGTGAACACTCAATGGTTAACTAA  
TTCTTGGGTGTTTATCCTATCTCTCCAACCAGATTGTCAGCTCCTTGAGGGCAAGAGCCACAGTATATTTCCCTG  
TTTCTTCCACAGTGCCTAATAATACTGTGGAAGTAGGTTTAAATAATTTTTTAATTGATGTTGTTATGGGCAGGA  
TGGCAACCAGACCATTGTCTCAGAGCAGGTGCTGGCTCTTTCTGGCTACTCCATGTTGGCTAGCCTCTGGTAAAC  
CTCTTACTTATTATCTTCAGGACACTCACTACAGGGACCAGGGATGATGCAACATCCTTGTCTTTTTATGACAGG  
ATGTTTGCTCAGCTTCTCCAACAATAAGAAGCACGTGGTAAACACTTGCGGATATTCTGGACTGTTTTTAAAAA  
ATATACAGTTTACCGAAAATCATATAATCTTACAATGAAAAGGACTTTATAGATCAGCCAGTGACCAACCTTTTC  
CCAACCATACAAAAATTCCTTTTCCGAAGGAAAAGGGCTTTCTCAATAAGCCTCAGCTTTCTAAGATCTAACAA  
GATAGCCACCGAGATCCTTATCGAACTCATTTTAGGCAAAATAGAGTTTATTGTCCGTTTACTTGTTTCAGAG  
TTTGTATTGTGATTATCAATTACCACACCATCTCCCATGAAGAAAGGGAACGGTGAAGTACTAAGCGCTAGAGGA  
AGCAGCCAAGTCGGTTAGTGGAAGCATGATTGGTGCCAGTTAGCCTCTGCAGGATGTGGAAACCTCCTTCCAGG  
GGAGGTTTCAGTGAATTGTGTAGGAGAGGTTGTCTGTGGCCAGAATTTAAACCTATACTCACTTTCCCAAATTGAA  
TCACTGCTCACACTGCTGATGATTTAGAGTGCTGTCCGGTGGAGATCCCAACCGAACGTCTTATCTAATCATGAA  
ACTCCCTAGTTTCTTTCATGTAACCTCCCTGAAAAATCTAAGTGTTTCATAAATTTGAGAGTCTGTGACCCACTTA  
CCTTGATCTCACAGGTAGACAGTATATACTAACAACCAAGACTACATATTGTCAGTACACACACGTTATAA  
TCATTTATCATATATATACATACATGCATACACTCTCAAAGCAAATAATTTTTCACTTCAAAACAGTATTGACTT  
GTATACCTTGTAATTTGAAATATTTCTTTGTTAAATAGAAATGGTATCAATAAATAGACCATTAAATCAG

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**FIGURE 345**

MKSGVLFLLGIILLVLIGVQGTPVVRKGRCSICSTNQGTIHLQSLKDLKQFAPSPSCEKIEIIATLKNGVQTCL  
NPDSADVKELIKKEKQVSQKKKQKNGKKHQKKVLKVRKSQRSRQKKT

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**FIGURE 346**

GAGCGCGGCTGGAGTTTGCTGCTGCCGCTGTGCAGTTTGTTCAGGGGCTTGTGGTGGTGAGTCCGAGAGGCTGCG  
TGTGAGAGACGTGAGAAGGATCCTGCACTGAGGAGGTGGAAAGAAGAGGATTGCTCGAGGAGGCCTGGGGTCTGT  
GAGGCAGCGGAGCTGGGTGAAGGCTGCGGGTTCCGGCGAGGCCTGAGCTGTGCTGTCGTCATGCCTCAAACCCGA  
TCCCAGGCACAGGCTACAATCAGTTTTCCAAAAAGGAAGCTGTCTCGGGCATTGAACAAAGCTAAAACTCCAGT  
GATGCCAAACTAGAACCAACAAATGTCCAAACCGTAACCTGTTCTCCTCGTGTAAGCCCTGCCTCTCAGCCCC  
AGGAAACGTCTGGGCGATGACAACCTATGCAACACTCCCCATTTACCTCCTTGTTCTCCACCAAAGCAAGGCAAG  
AAAGAGAATGGTCCCCCTCACTCACATACACTTAAGGGACGAAGATTGGTATTTGACAATCAGCTGACAATTAAG  
TCTCCTAGCAAAAAGAGAAGTAGCCAAAGTTACCAAAAACAAAATACTTTCTTCAGTTAGAAAAAGTCAAGAGATC  
ACAACAAATTCTGAGCAGAGATGTCCACTGAAGAAAGAATCTGCATGTGTGAGACTATTCAAGCAAGAAGGCACT  
TGCTACCAGCAAGCAAAGCTGGTCCTGAACACAGCTGTCCCAGATCGGCTGCCTGCCAGGGAAAGGGAGATGGAT  
GTCATCAGGAATTTCTTGAGGGAACACATCTGTGGGAAAAAAGCTGGAAGCCTTTACCTTTCTGGTGCTCCTGGA  
ACTGGAAAAACTGCCTGCTTAAGCCGGATTCTGCAAGACCTCAAGAAGGAAGTGAAGGCTTTAAACTATCATG  
CTGAATTGCATGTCCTTGAGGACTGCCAGGCTGTATTCCCAGCTATTGCTCAGGAGATTTGTCAGGAAGAGGTA  
TCCAGGCCAGCTGGGAAGGACATGATGAGGAAATTGGAAAAACATATGACTGCAGAGAAGGGCCCCATGATTGTG  
TTGGTATTGGACGAGATGGATCAACTGGACAGCAAAGGCCAGGATGTATTGTACACGCTATTTGAATGGCCATGG  
CTAAGCAATTCTCACTTGGTGCTGATTGGTATTGCTAATACCTGGATCTCACAGATAGAATTCTACCTAGGCTT  
CAAGCTAGAGAAAAATGTAAGCCACAGCTGTTGAACTTCCCACCTTATACCAGAAATCAGATAGTCACTATTTTG  
CAAGATCGACTTAATCAGGTATCTAGAGATCAGGTTCTGGACAATGCTGCAGTTCAATTCTGTGCCCCGAAAGTC  
TCTGCTGTTTCAGGAGATGTTGCAAGCACTGGATGTTTGCAGGAGAGCTATTGAAATTGTAGAGTCAGATGTC  
AAAAGCCAGACTATTCTCAAACCACTGTCTGAATGTAATCACCTTCTGAGCCTCTGATTCCCAAGAGGGTTGGT  
CTTATTCACATATCCCAAGTCATCTCAGAAGTTGATGGTAACAGGATGACCTTGAGCCAAGAAGGAGCACAAAGAT  
TCCTTCCCTCTTCAGCAGAAGATCTTGGTTTGCTCTTTGATGCTCTTGATCAGGCAGTTGAAAATCAAAGAGGTC  
ACTCTGGGGAAGTTATATGAAGCCTACAGTAAAGTCTGTGCAACAGCAGGTGGCGGCTGTGGACCAGTCAGAG  
TGTTTGTCACCTTCAGGGCTCTTGGAAGCCAGGGGCATTTTAGGATTAAAGAGAAACAAGGAAACCCGTTTGACA  
AAGGTGTTTTTCAAGATTGAAGAGAAAGAAATAGAACATGCTCTGAAAGATAAAGCTTTAATTGGAAATATCTTA  
GCTACTGGATTGCCTTAAATTCTTCTTACACCCACCCGAAAGTATTAGCTGGCATTAGAGAGCTACAGTC  
TTCATTTTAGTGCTTTACACATTCGGGCCTGAAAACAAATATGACCTTTTTTACTTGAAGCCAATGAATTTTAAT  
CTATAGATTCTTTAATATTAGCACAGAATAATATCTTGGGTCTTACTATTTTTTACCCATAAAAGTGACCAGGTA  
GACCTTTTTTAATTACATTCACTACTTCTACCACTTGTGTATCTCTAGCCAATGTGCTTGCAAGGTACAGATCT  
GTGTAGAGGAATGTGTGTATATTTACCTCTTCGTTTGCTCAAACATGAGTGGGTATTTTTTTGTTTGTTTTTTT  
GTTGTTGTTGTTTTTGAGGCGCGTCTCACCTGTTGCCAGGCTGGAGTGCAATGGCGCGTCTCTGCTCACTAC  
AGCACCCGCTTCCAGGTTGAAGTGATTCTCTTGCTCAGCCTCCCGAGTAGCTGGGATTACAGGTGCCACCAC  
CGCGCCAGCTAATTTTTTAATTTTTAGTAGAGACAGGGTTTTACCATGTTGGCCAGGCTGGTCTTGAACCTCTG  
ACCCTCAAGTGATCTGCCACCTTGGCCTCCCTAAGTGCTGGGATTATAGGCGTGAGCCACCATGCTCAGCCATT  
AAGGTATTTTGTTAAGAACTTTAAGTTTAGGGTAAGAAGAATGAAAATGATCCAGAAAAATGCAAGCAAGTCCAC  
ATGGAGATTTGGAGGACACTGGTTAAAG

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**FIGURE 347**

MPQTRSQAQATISFPKRKLSRALNKAKNSSDAKLEPTNVQTVTCSPRVKALPLSPRKRLGDDNLCNTPHLPPCSP  
PKQGKKENGPPHSHTLKGRRLVFDNQLTIKSPSKRELAKVHQNKILSSVRKSQEITTNSEQRCPLKKESACVRLF  
KQEGTCYQQAHLVNTAVPDRLPAREREMDVIRNFLREHICGKKAGSLYLSGAPGTGKTACLSRILQDLKKELKG  
FKTIMLNCMSLRTAQAVFPAIAQEICQEEVSRPAGKDMMRKLEKHMTAEKGPMIVLVLEMDQLDSKGQDVLYTL  
FEWPWLSNSHLVLIGIANTLDLTDRLPRLQAREKCKPQLLNFPYTRNQIVTILQDRLNQVSRDQVLDNAAVQF  
CARKVSAVSGDVRKALDVCRRRAIEIVESDVKSQTILKPLSECKSPSEPLIPKRVGLIHISQVISEVDGNRMTLSQ  
EGAQDSFPLQKILVCSLMLLIRQLKIKEVTLGKLYEAYSKVCRKQQVAAVDQSECLSLSGLLEARGILGLKRNK  
ETRLTKVFFKIEEKEIEHALKDKALIGNILATGLP

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**FIGURE 348**

GAGCGCGGCTGGAGTTTGCTGCTGCCGCTGTGCAGTTTGTTCAGGGGCTTGTTGGTGGTGAAGTCCGAGAGGCTGCG  
TGTGAGAGACGTGAGAAGGATCCTGCACTGAGGAGGTGGAAAGAAGAGGATTGCTCGAGGAGGCCTGGGGTCTGT  
GAGGCAGCGGAGCTGGGTGAAGGCTGCGGGTTCCGGCGAGGCCTGAGCTGTGCTGTCGTCATGCCTCAAACCCGA  
TCCCAGGCACAGGCTACAATCAGTTTTCCAAAAAGGAAGCTGTCTCGGGCATTGAACAAAGCTAAAAACTCCAGT  
GATGCCAAACTAGAACCAACAAATGTCCAAACCGTAACCTGTTCTCCTCGTGTAAGCCCTGCCTCTCAGCCCC  
AGGAAACGTCTGGGCGATGACAACCTATGCAACACTCCCCATTTACCTCCTTGTTCTCCACCAAGCAAGGCAAG  
AAAGAGAATGGTCCCCCTCACTCACATACACTTAAGGGACGAAGATTGGTATTTGACAATCAGCTGACAATTAAG  
TCTCCTAGCAAAAGAGAACTAGCCAAAGTTTACCAAAACAAAATACTTTCTTCAGTTAGAAAAAGTCAAGAGATC  
ACAACAAATTCTGAGCAGAGATGTCCACTGAAGAAAGAATCTGCATGTGTGAGACTATTCAAGCAAGAAGGCACT  
TGCTACCAGCAAGCAAAGCTGGTCTGAACACAGCTGTCCCAGATCGGCTGCCTGCCAGGGAAAGGGAGATGGAT  
GTCATCAGGAATTTCTTGAGGGAACACATCTGTGGGAAAAAAGCTGGAAGCCTTTACCTTTCTGGTGCTCCTGGA  
ACTGGA AAAA ACTGCCTGCTTAAGCCGATTCTGCAAGACCTCAAGAAGGAAGTGAAGGCTTTAAACTATCATG  
CTGAATTGCATGTCTTGAGGACTGCCAGGCTGTATTCCCAGCTATTGCTCAGGAGATTTGTCAGGAAGAGGTA  
TCCAGGCCAGCTGGGAAGGACATGATGAGGAAATTGGAAAAACATATGACTGCAGAGAAGGGCCCCATGATTGTG  
TTGGTATTGGACGAGATGGATCAACTGGACAGCAAAGGCCAGGATGTATTGTACACGCTATTTGAATGGCCATGG  
CTAAGCAATTCTCACTTGGTGCTGATTGGTATTGCTAATACCCTGGATCTCACAGATAGAATTCTACCTAGGCTT  
CAAGCTAGAGAAAAATGTAAGCCACAGCTGTTGAACTTTCCACCTTATACCAGAAATCAGATAGTCACTATTTTG  
CAAGATCGACTTAATCAGGTATCTAGAGATCAGGTTCTGGACAATGCTGCAGTTCAATTCTGTGCCCGCAAAGTC  
TCTGCTGTTTCAGGAGATGTTTCGCAAAGCACTGGATGTTTGCAAGGAGAGCTATTGAAATTGTAGAGTCAGATGTC  
AAAAGCCAGACTATTCTCAAACCACTGTCTGAATGTAAATCACCTTCTGAGCCTCTGATTCCCAAGAGGGTTGGT  
CTTATTCACATATCCCAAGTCATCTCAGAAGTTGATGGTAACAGGATGACCTTGAGCCAAGAAGGAGCACAAGAT  
TCCTTCCCTCTTCAGCAGAAGATCTTGGTTTGCTCTTTGATGCTCTTGATCAGGCAGTTGAAAATCAAAGAGGTC  
ACTCTGGGGAAGTTATATGAAGCCTACAGTAAAGTCTGTGCGCAAACAGCAGGTGGCGGCTGTGGACCAGTCAGAG  
TGTTTGTCACTTTCAGGGCTCTTGGAAGCCAGGGGCATTTTAGGATTAAAGAGAAACAAGGAACCCGTTTGACA  
AAGGTGTTTTTCAAGATTGAAGAGAAAGAAATAGAACATGCTCTGAAAGATAAAGCTTTAATTGGAAATATCTTA  
GCTACTGGATTGCCTTAAATTCTCTCTTACACCCACCCGAAAGTATTCAGCTGGCATTTAGAGAGCTACAGTC  
TTCATTTTAGTGCTTTACACATTGCGGCCTGAAAACAAATATGACCTTTTTTACTTGAAGCCAATGAATTTTAAT  
CTATAGATTCTTTAATATTAGCACAGAATAATATCTTTGGGTCTTACTATTTTTTACCCATAAAAGTGACCAGGTA  
GACCCTTTTTAATTACATTCACTACTTCTACCCTTGTGTATCTCTAGCCAATGTGCTTGCAAGTGTACAGATCT  
GTGTAGAGGAATGTGTGTATATTTACCTCTTCGTTTGCTCAAACATGAGTGGGTATTTTTTTGTTTGTTTTTTT  
GTTGTTGTTGTTTTTGAGGCGCTCTCACCTGTTGCCAGGCTGGAGTGCAATGGCGCGTTCTCTGCTCACTAC  
AGCACCCGCTTCCCAGGTTGAAGTGATTCTCTTGCTCAGCCTCCCAGTAGCTGGGATTACAGGTGCCACCAC  
CGCGCCAGCTAATTTTTTAATTTTTTAGTAGAGACAGGGTTTTTACCATGTTGGCCAGGCTGGTCTTGAACCTCTG  
ACCTCAAGTGATCTGCCACCTTGGCCTCCCTAAGTGCTGGGATTATAGGCGTGAGCCACCATGCTCAGCCATT  
AAGGTATTTTGTTAAGAAGTTTAAAGTTTAGGGTAAGAAGAATGAAAATGATCCAGAAAAATGCAAGCAAGTCCAC  
ATGGAGATTGAGGAGACTGGTTAAAG



**FIGURE 349**

MPQTRSQAQATISFPKRKLSRALNKAKNSSDAKLEPTNVQTVTCSPRVKALPLSPRKRLGDDNLCNTPHLPPCSP  
PKQGKKENGPPHSHTLKGRRLVFDNQLTIKSPSKRELAKVHQNKILSSVRKSQEITTNSEQRCPLKKESACVRLF  
KQEGTCYQQAKLVNLTAVPDRLPAREREMDVIRNFLREHICGKKAGSLYLSGAPGTGKTACLSRILQDLKKELKG  
FKTIMLNCMSLRTAQAVFPAIAQEICQEEVSRPAGKDMMRKLEKHMTAEKGPMIVLVLEMDQLDSKGQDVLYTL  
FEWPWLSNSHLVLIGIANTLDLTDRLPRLQAREKCKPQLLNFPYTRNQIVTILQDRLNQVSRDQVLDNAAVQF  
CARKVSAVSGDVRKALDVCRRAIEIVESDVKSQTIKPLSECKSPSEPLIPKRVGLIHISQVISEVDGNRMTLSQ  
EGAQDSFPLQQKILVCSLMLLIRQLKIKEVTLGKLYEAYSKVCRKQQVAVDQSECLSLSGLLEARGILGLKRNK  
ETRLTKVFFKIEEKEIEHALKDKALIGNILATGLP

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**FIGURE 350**

GGAGTGC GGGGCGCCCGGCCAGGGGAGCCGCCACAGCC**ATCG**ATTGCAAAGATAGACCAGCTTTTCCAGTTAA  
GAAGTTAATACAAGCCCGTCTGCCGTTTAAAGCGCTGAATCTTGTCCTCAAAGGGGAAAGCCGATGACATGTCAGA  
CGATCAGGGTACTTCTGTGCAAAGTAAAGCCCCGATTTAGAGGCCTCTTTGGACACCTTGAAAAACAAGTGTCA  
TGTGGGTTCTGACATAGACTTTAGACCGAAACTTGTCAACGGGAAGGGTCCCTTAGATAACTTTTAAAGAAATAG  
AATCGAAACCAGTATTGGCCAGAGCACAGTCATCATTGATTTGACAGAGGACTCGAATGAGCAGCCAGACAGTCT  
TGTGGACCACAATAAACTAAATTCTGAAGCCTCTCCCTCCAGGGAGGCAATAAATGGCCAGCGAGAAGACACTGG  
GGATCAGCAGGGGTTGTTGAAGGCCATTGAGAACGACAAGTTGGCATTTCCTGGAGAGACCCTTTCAGACATTCC  
TTGCAAAACAGAGGAGGAGGGTGTGGCTGTGGAGGTGACAGGAGGAGAGGCGACTCCAGGAATGTTCCGCCACG  
GAGCTGCCCCGAGCTGACGAGTGGCCCGAGAATGTGCCCCAGAAAGGAGCAGGACAGTTGGAGTGAAGCTGGGGG  
CATCCTGTTCAAAGGGAAGGTGCCTATGGTGGTCTTGACAGGACATCTTGCTGTGAGACCACCGCAATCAAGTC  
CCTTCCAGCCACACCCCAAGGCAAGAATGACCCCTGAGAGTGAGGTGCTGGAATCTTTCCCGAAGAAGACTC  
TGTACTCAGCCATTCTGCCCTGAGCTCTCCCTCTTCCACCAGCTCGCCGAGGGGCGCCTGCTCCCCAAAGCA  
GCACAGCAGTACCAGTCCCTTCCCCACCTCCACGCCCTCCGCAGAATAACTAAGAAATTCGTCAAAGGCTCTAC  
AGAGAAGAACAAGCTCAGACTGCAAAGAGATCAGGAGCGTCTGGGCAAGCAGCTCAAGTTACGTGCAGAAAGGGA  
AGAAAAGGAGAAAGCTGAAAGAGGAGGCCAAGCGGGCCAAGGAGGAGGCCAAGAAGAAGAAGGAGGAAGAGAAGGA  
GCTTAAGGAAAAGGAGAGGCGGGAGAAGCGGGAGAAGGATGAGAAGGAGAAGGCGGAGAAGCAGCGGCTCAAGGA  
GGAGCGGCGCAAGGAGAGACAGGAAGCCCTGGAGGCTAAACTTGAGGAAAAAAGGAAAAAGGAAGAAGAGAAACG  
GTTAAGAGAAGAAGAGAAGCGCATTAAAGCAGAGAAGGCCGAAATCACGAGGTTCTTCCAGAAACCAAAGACTCC  
ACAGGCCCCCAAGACCCTGGCCGGCTCCTGTGGGAAGTTTGCCCCCTTTGAAATTAAAGAGCACATGGTCCTGGC  
CCCTCGGCGTCGGACCGCTTTCCATCCAGACCTCTGCAGTCAGCTGGACCAGCTCCTCCAGCAGCAGAGCGGCGA  
GTTCTCCTTCTTGAAAGACCTCAAAGGCCGGCAGCCCCCTGAGGTCCGGACCCACGCACGTTTCCACCCGGAATGC  
AGATATTTTAAACAGTGATGTCGTCATCGTGAGCGTGGAAGGGCGACGGTGTTCAGAGAGGAGGAAGTTTGG  
CAGGATGAAGCTCCTGCAGTTCTGTGAGAACCACGGCCTGCCTACTGGGGTACCTGGAATAAGAAGACGGCACT  
CATCCGCGCGGAGACCCCTGGGCCCAGGACACGAAGCTCCTGGACTATGAGGTGGACAGTGATGAGGAGTGGGA  
AGAAGAGGAGCCTGGGGAGTCCCTGTCCACAGTGAGGGGGATGATGATGACGACATGGGAGAGGATGAAGATGA  
GGACGATGGTTTCTTTGTGCCCCATGGGTACCTGTCTGAGGACGAAGGTGTGACAGAGGAGTGTGCCGACCCTGA  
GAACCATAAGGTCCGCCAGAACTGAAGGCCAAGGAGTGGGACGAGTTCTGGCTAAGGGGAAGCGCTTTCGCGT  
CCTGCAACCTGTGAAGATCGGCTGCGTGTGGGCGGCTGACAGAGACTGCGCAGGCGATGACCTGAAGGTACTGCA  
GCAGTTCGCAGCCTGCTTCTTGAGACCCCTGCCGGCCAGGAGGAGCAGACGCCCAAGGCCTCCAAGCGGGAGAG  
GAGAGACGAGCAGATCCTGGCCCAGCTGCTGCCGCTCCTGCACGGCAATGTGAACGGGAGCAAGGTATCATCCG  
GGAGTTCCAGGAGCACTGCCGCCGGGGACTGCTCAGCAACCACACCGGCAGCCCGCGGACGCCCTCCACCACCTA  
CCTGCACACCCCCACCCCCAGCGAGGATGCCGCCATCCCCCTCTAAGTCCCGGCTCAAGCGGCTCATTTCCGAGAA  
CTCAGTGTATGAGAAGCGGCCTGACTTCAGGATGTGCTGGTACGTGCACCCGCAGGTGCTACAGAGCTTCCAGCA  
GGAGCACCTGCCCGTGCCGTGCCAGTGGAGCTATGTGACATCGGTGCCCTCGGCCCCCAAGAGGACAGTGGCAG  
CGTCCCCCTCCACGGGGCCAGCCAGGGCACTCCCATCTCGCTGAAGAGGAAGTCAGCGGGCAGCATGTGCATCAC  
CCAATTCATGAAGAAGCGCAGGCACGACGGCCAGATTGGTGCTGAAGACATGGACGGCTTCCAGGCAGACACGGA  
GGAGGAGGAAGAGGAGGAGGGCGACTGTATGATCGTGATGTCCCGGATGCTGTGGAGGTCCAAGCCCCGTGTGG  
AGCCGCTTCCGGAGCTGGGGGTGGTGTGGGGGTGGACACCGGCAAGGCCACCCTGACCGCAGCCCCACTGGGTGC  
ATCC**TGAG**AGCAGGGGTGACGTATGTAGAACGCTTAGGGTGTCTCCCCACAGAGCAGATACTTGAACCGACTCA  
ATTCTGTGTAAAGAGCACTTTGTCTGCTTCACGGACCTCCCCAAAGTGTGCAGAGTTCTATATAGGATGCTGG  
ATTAGTTCCTTTGATATTTGTAAAAATTCCCCCAAGACCGCATATGAATCTGCCCTTTAATAAAGCATTATTGA  
GATTGCTGGCCTATTGGGGAAGCTGCGGGCACAGGA

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**FIGURE 351**

MDCKDRPAFPVKKLIQARLPFKRLNLVPKGKADDMSDQGTSVQSKSPDLEASLDTLENNCHVGSDIDFRPKLVN  
GKGPLDNFLRNRIETSIGQSTVIIDLTEDSNEQPDSDLVDHKNLNSEASPSREAINGQREDTGDQQGLLKAIQNDK  
LAFPGETLSDIPCKTEEEGVGCGGAGRRGDSQECSPRSCPELTSGPRMCPRKEQDSWSEAGGILFKGKVP MVVLQ  
DILAVRPPQIKSLPATPQGKNMTPESVLESFPEEDSVLSHSSLSSPSSSTSSPEGPPAPPKQHSSTSPFPTSTPL  
RRITKKFVKGSTENKRLRLQRDQERLGKQLKLRAEREEKEKLKEEAKRAKEEAKKKKEEEKELKEKERREKREKD  
EKEKAQKQRLKEERRKERQEALAKLEEKRKKEEEKRLREEEKRIKAEKAEITRFFQKPKTPQAPKTLAGSCGKF  
APFEIKEHMLAPRRRTAFHPDLCSQLDQLLQQQSSEFSFLKDLKGRQPLRSGPTHVSTRNADIFNSDVVIVERG  
KGDGVPERRKFGRMKLLQFCENHRPAYWGTWNKKTALIRARDPWAQDTKLLDYEVDSDDEWEEEEPGEESLHSEG  
DDDDDMGEDEDEDDGFFVPHGYLSEDEGVTEECADPENHKVRQKLKAKEWDEFLAKGKRFRVLQPVKIGCVWAAD  
RDCAGDDLKVLQQFAACFLETLPQEEQTPKASKRERRDEQILAQLPLHGNVNGSKVIREFQEHCRRLSN  
HTGSPRTPSTTYLHTPTPSDAAIPSKSRLKRLISENSVYEKRPDFRMCWYVHPQVLQSFQEHLPVPCQWSYVT  
SVPSAPKEDSGSVPTGPSQGTPI SLKRKSAGSMCITQFMKKRRHDGQIGAEDMDGFQADTEEEEEEGDCMIVD  
VPDAVEVQAPCGAASGAGGGVGVDTGKATLTASPLGAS

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**FIGURE 352**

GCAGTTCAGACCCCCACACCCATCAAAGAGCCGCTCCTCCCCCGCAGGCGCCTTCGCCGCCTCCCTCCCTT  
CCTTTCCTTTCGCTCCTCTTCCGACCTGTCCACCCGGGAGGAAGGGAGCTGGAAAGGGGGCGGAAACCTCTCCC  
CTCCAAAAGCACAACAAAAGTGTTCAGTGCAGGAGGAGCCGGGTTCGCCCTGCCGACAGCGGGGGGCTTTGTT  
CCCCGCAGTTGTTTCTGCCCATTTGACCTGTACGCTGCTGGGGAAACGCTGCTGTTGACCTTTGGTTGAAGTGC  
TAAGGCGATTTTGCTGATTTTCTTTCTTTTCCGCGAGGGCTGTCTTTGCTCCTCCAAATGAGCCCAGTCCCC  
CTCCCTTCTCCCCAAAGCGCTCCAAGAGAAAGTGCCAGGAAGGGGCTTGTCGCCGAAGGCCTGGCGGCTGAGCGG  
GGCCAGGTCTTGTTAGGCCACCAGGTGGGCGTCCGCGCCATTGTTTGTGAGCTGTGCGGCGCTGGTGGGAGAGAT  
GAGGGCAATTCTCTGGGACGCAAGTCCCCTCGAATGGCCGGGGCTGGCCGGGATGTTCCCCGCACGGCGCTGCC  
CTCGAGTCCCCCGATGGAGAGCGCGGGCGCGCCTTCTTTCGCTGGCGTCCAAACCCGGGACCAGCTAGAACACA  
GCAGGGCTGGGACTGGGTTCAGCCCCACGTGGAGTCTGGATTTGTTTGTGTGTTTGTCTTCTCTCTGGAA  
GAAATCCCAGGGGACCGCCCTAGAGCGGCAGCTCCAGGACCTCGGCCCTTGGGCTTCCGGGGGTGCAGCCACTT  
AGGCCCCGCTCCCGGGGAGAGAGGGATTATTTTTTAAGATTTATCCCCAGGGCGCGCGGCATTTCCCTGTCCCTC  
GTGAATCCCGTTGAGAGTCTCTCCCTCCCAACCTCCTCCATTTCCCCAGCCAGACCGATTTCGAGAGCCCTGGAGA  
TTCTGGGCGAGGCTAGTGACTGGGTAGTACAGGCCTCTAGCCCCACCATTGCTCTCTCTGTCTTCAGTTCCCCAG  
GAGGGCAATGGCATCAAAACGACACAGCTCTGGGGGATGTCAATATTGCATACCTTTTCTACCTAAAGGGAAAATG  
ACTCGCTTTTCTGCTTGCAAATATGGTAGTTTCTGCTTACAAATGTAATACAATGCCCATGACAGCCAAGGACTG  
GAAGCATAAGTTGCTAGGTCTTACAGGTGATTTTTTACAATGAAGCAAACCTCACTATGTTAGACACCATTACAT  
TGGATGTCTCCAACATAACAAAAGTAACTAAAGACAGATGTAGGTGTAATTTGAGAGTGAATTTGACCCCTTAGA  
CCGTCACAACTTCTTGGGCTTATCCTGGGTGCTTATAGGAGAGGTGGGCTCCACCCACAAAATGGACTGCTCA  
GAAAATGAGGGAGAGAGAAAGGGTGGCCACTTTCCCGAGCCAAGAAATTCCTTGAAAAAAATCAGAACATCTG  
AAACCAGAGAGCCGATTTCTTACCGGGAGGCAGTTTCTGGCTAACGAAGAGGAAGCACGATGGGAAGAAAAGTT  
CACTCCAACGGAAGCCAGTTTGTGTAACATAGCAGATCGCCAGGAGGACTGGGAGAGACTGCAAACAGTTTCGA  
GCCCCAGCATGGCGTTAGGTGTCAGCCAGCTGGCAGGAAGGTCCAGGTGTCTGTGTTTCAAGTCTCAAGGCGGC  
TATGAGAGGTTTTCTCCGAGTACCCAGAATTCTGTTCTAAACCAAGGCCCTGGCAGCCATCCCACCCCGGTT  
CCCCCAGTGCCACAGAGCCCTTGGACCTGGGCTGCAGCTCCTGTGGGACCCCACTACACGACCAGGGGGTCTCT  
GTGGAGATCCTTCCCTTCTCTACCTCGGCAGTGCCTACCATGCTGCCCGAGAGACATGCTGGACGCCCTGGGC  
ATCACGGCTCTGTTGAATGTCTCCTCGGACTGCCCAAACCACTTTGAAGGACACTATCAGTACAAGTGCATCCCA  
GTGGAAGATAACCACAAGGCCGACATCAGCTCCTGGTTTATGGAAGCCATAGAGTACATCGATGCCGTGAAGGAC  
TGCCGTGGGCGCGTGCTGGTGCACGTGCCAGGCGGCATCTCGCGGTGGGCCACCATCTGCCTGGCCTACCTGATG  
ATGAAGAAACGGGTGAGGCTGGAGGAGGCCTTCAGATTGTTAAGCAGCGCCGAGCATCATCTCGCCCAACTTC  
AGCTTCATGGGGCAGCTGCTGCAGTTCAGTCCAGGTGCTGGCCACGTCTGTGCTGCGGAGGCTGCTAGCCCC  
TCGGGACCCCTGCGGGAGCGGGGCAAGACCCCGCCACCCCACTCGCAGTTCGTCTTCAGCTTTCCGGTCTCC  
GTGGGCGTGCACTCGGCCCCCAGCAGCCTGCCCTACCTGCACAGCCCCATCACCACCTCTCCAGCTGT**TAGAGC**  
CGCCCTGGGGGCCCCAGAACCAGAGCTGGCTCCAGCAAGGGTAGGACGGGGCCGATGCGGGCAGAAAGTTGGGA  
CTGAGCAGCTGGGAGCAGGCGACCGAGCTCCTTCCCCATCATTTCTCCTTGGCCAACGACGAGGCCAGCCAGAAT  
GGCAATAAGGACTCCGAATACATAATAAAAGCAAACAGAACTCCAACCTTAGAGCAATAACGGCTGCCGAGCA  
GCCAGGGAAGACCTTGTTTGGTTTATGTGTGAGTTTCACTTTTCCGATAGAAATTTCTTACCTCATTTTTTTAA  
GCAGTAAGGCTTGAAGTGATGAAACCCACAGATCCTAGCAAATGTGCCCAACCAGCTTTACTAAAGGGGGAGGAA  
GGGAGGGCAAAGGGATGAGAAGACAAGTTTCCAGAAGTGCCTGGTTCTGTGTACTTGTCCCTTTGTTGTCGTTG  
TTGTAGTTAAAGGAATTTCATTTTTTAAAGAAATCTTCGAAGGTGTGGTTTCAATTTCTCAGTCACCAACAGAT  
GAATAATTATGCTTAATAATAAAGTATTTATTAAGACTTTCTTCAGAGTATGAAAGTACAAAAGTCTAGTTACA  
GTGGATTTAGAAATATATTTATGTTGATGTCAAACAGCTGAGCACCGTAGCATGCAGATGTCAAGGCAGTTAGGAA  
GTAAATGGTGTCTTGTAGATATGTGCAAGGTAGCATGATGAGCAACTTGAGTTTGTGCCACTGAGAAGCAGGCG  
GGTTGGGTGGGAGGAGGAAGAAAGGGAAGAATTAGGTTTGAATTGCTTTTTAAAAAAGAAAAGAAAAGAC  
AGCATCTCACTATGTTGCCAAGGCTCATCTTGAGAAGCAGGCGGGTTGGGTGGGAGGAGGAAGAAAGGGAAGAAT  
TAGGTTTGAATTGCTTTTTTAAAAA

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**FIGURE 353**

MGRKVHSNGSQFAEHSRSPRRTGRDCKPVRAPSMALGVSQLAGRSRCLCSESQGGYERFSSEYPEFCSTKALAA  
IPPPVPPSATEPLDLGCSSCGTPLHDQGGPVEILPFLYLGSAYHAARRDMLDALGITALLNVSSDCPNHFEGHYQ  
YKCIPVEDNHKADISSWFMEAIEYIDAVKDCRGRVLVHCQAGISRSATICLAYLMMKKVRLEEAFEFVKQRRSI  
ISPNFSFMGQLLQFESQVLATSCAAEAASPSGPLRERGKTPATPTSQFVFSFPVSVGVSAPSSLPYLHSPITTS  
PSC

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**FIGURE 354**

CTGCCATTTAGGACAAGCTGGATGATGATGGTTTGATAGCTCCAGGGGTTTCGTGTATAGGAGATGATGAATCTGC  
TTCATCCAGAATCACAACTTTAAAAGGCGGGAAGTGAAGCGACTGTGGGGACATCAGTGATCGTAAGTCTCCTGG  
GCCCCGTTATTCTCAGATTAGGTGACGGAGCTAAGACTTCGAGACCATCTCGTCCTTTTTGTATCGCGGAAACCTG  
AGGAACGAGCCGGCGGCGGTGACCTGCACGAGAAGCCAGGCTAACTGGGTGAAGTACC**ATG**CAAGCATTCTTAA  
AGGTACATCCATCAGTACTAAACCCCGCTGACCAAGGATCGAGGAGTAGCTGCCAGTGCGGGAAGTAGCGGAGA  
GAACAAGAAAGCCAAACCCGTTCCCTGGGTGGAAAAATATCGCCCAAAATGTGTGGATGAAGTTGCTTTCCAGGA  
AGAAGTGGTTGCAGTGCTGAAAAAATCTTTAGAAGGAGCAGATCTTCCTAATCTCTTGTTTTACGGACCACCTGG  
AACTGGAAAAACATCCACTATTTTGGCAGCAGCTAGAGAACTCTTTGGGCCTGAACTTTTCCGATTAAGAGTTCT  
TGAGTTAAATGCATCTGATGAACGTGGAATACAAGTAGTTCGAGAGAAAGTGAAAAATTTTGCTCAATTAAGTGT  
GTCAGGAAGTCGCTCAGATGGGAAGCCGTGTCCGCCTTTTAAGATTGTGATTCTGGATGAAGCAGATTCTATGAC  
CTCAGCTGCTCAGGCAGCTTTAAGACGTACCATGGAGAAGGAGTCGAAAACCACCCGATTCTGTCTTATCTGTAA  
CTATGTCAGTCGAATAATTGAACCCCTGACCTCTAGATGTTCAAAATTCCGCTTCAAGCCTCTGTCAGATAAAAT  
TCAACAGCAGCGATTACTAGACATTGCCAAGAAGGAAAATGTCAAAATTAGTGATGAGGGAATAGCTTATCTTGT  
TAAAGTGTGAGAAGGAGACTTAAGAAAAGCCATTACATTTCTTCAAAGCGCTACTCGATTAACAGGTGGAAAGGA  
GATCACAGAGAAAGTGATTACAGACATTGCTGGGGTAATACCAGCTGAGAAAATTGATGGAGTATTTGCTGCCTG  
TCAGAGTGGCTCTTTTGACAACTAGAAGCTGTGGTCAAGGATTTAATAGATGAGGGTCATGCAGCAACTCAGCT  
CGTCAATCAACTCCATGATGTGGTTGTAGAAAATAACTTATCTGATAAACAGAAGTCTATTATCACAGAAAACT  
TGCCGAAGTTGACAAATGCCTAGCAGATGGTGCTGATGAACATTTGCAACTCATCAGCCTTTGTGCAACTGTGAT  
GCAGCAGTTATCTCAGAATTGT**TAA**CGTGATATATCTGGATGGGGGTTTTGTAAATAATGAAGTTGTAATAAAA  
ATAAAATGACCAAAAGCACCG

**FIGURE 355**

MQAFLKGTSISTKPPLTKDRGVAASAGSSGENKKAKPVPWVEKYRPKCVDEVAFQEEVVAVLKKSLEGADLPNLL  
FYGPPGTGKTSTILAAARELFGPELFRRLRVLELNASDERGIQVVREKVKNFAQLTVSGSRSDGKPCPPFKIVILD  
EADSMTSAAQAALRRMEKESKTTRFCLICNYVSRIIEPLTSRCSKFRFKPLSDKIQQQRLLDIAKKENVKISDE  
GIAYLVKVSEGLRKAITFLQSATRLTGGKEITEKVITDIAGVIPAEKIDGVFAACQSGSFDKLEAVVKDLIDEG  
HAATQLVNQLHDVVVENNLSDKQKSIITEKLAEVDKCLADGADEHLQLISLCATVMQQLSQNC

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**FIGURE 356**

GGCACGAGCTCGGCTCCTGGAAAGATGGAGGCAGCGGAGACAGAGGCGGAAGCTGCAGCCCTAGAGGTCCTGGCT  
GAGGTGGCAGGCATCTTGGAACCTGTAGGCCTGCAGGAGGAGGCAGAACTGCCAGCCAAGATCCTGGTTGAGTTT  
GTGGTGGACTCTCAGAAGAAAGACAAGCTGCTCTGCAGCCAGCTTCAGGTAGCGGATTTCTGCAGAACATCCTG  
GCTCAGGAGGACACTGCTAAGGGTCTCGACCCCTTGGCTTCTGAAGACACGAGCCGACAGAAGGCAATTGCAGCT  
AAGGAACAATGGAAAGAGCTGAAGGCCACCTACAGGGAGCACGTAGAGGCCATCAAAATTGGCCTCACCAAGGCC  
CTGACTCAGATGGAGGAAGCCCAGAGGAAACGGACACAACCTCCGGAAGCCTTTGAGCAGCTCCAGGCCAAGAAA  
CAAATGGCCATGGAGAAACGCAGAGCAGTCCAGAACCAGTGGCAGCTACAACAGGAGAAGCATCTGCAGCATCTG  
GCGGAGGTTTCTGCAGAGGTGAGGGAGCGTAAGACAGGGACTCAGCAGGAGCTTGACAGGGTGTTTCAGAACTT  
GGAAACCTGAAGCAGCAGGCAGAACAGGAGCGGGACAAGCTGCAGAGGTATCAGACCTTCCTCCAGCTTCTGTAT  
ACCCTGCAGGGTAAGCTGTTGTTCCCTGAGGCTGAGGCTGAGGCAGAGAATCTTCCAGATGATAAACCCAGCAG  
CCGACTCGACCCAGGAGCAGAGTACAGGAGACACCATGGGGAGAGACCCTGGTGTCCTTCAAGGCTGTTGGT  
CTACAACCTGCTGGAGATGTAAATTTGCCATGACTTCCTGGAGGACAGCAGCATGGAGAAAGATCCTAGAAAAGG  
CCTCTGACTTCCCTCACCTCCCAACCATCATTACAGGAAAGACTGTGAACTCCTGAGTTCAGCTTGATTTCTGAC  
TACATCCCAGCAAGCTCTGGCATCTGTGGATTAAATCCCTGGATCTCTCTCAGTTGTGTATTTGTTTCATCTTCA  
TATGCTGGCAGGAACAACCTATTAATACAGATACTCAGAAGCCAATAACATGACAGGAGCTGGGACTGGTTTGAAC  
ACAGGGTGTGCAGATGGGGAGGGGGTACTGGCCTTGGGCCTCCTATGATGCAGACATGGTGAATTTAATTCAAGG  
AGGAGGAGAATGTTTTAGGCAGGTGGTTATATGTGGGAAGATAATTTTATTCATGGATCCAAATGTTTGTGAGT  
CCTTTCTTTGTGCTAAGGTTCTTGCGGTGAACCAGAATTATAACAGTGAGCTCATCTGACTGTTTTAGGATGTAC  
AGCCTAGTGTTAACATTCTTGGTATCTTTTTGTGCCTTATCTAAAACATTTCTCGATCACTGGTTTCAGATGTTT  
ATTTATTATATTCTTTCAAAGATTCAGAGATTGGCTTTTGTCACTCCACTATTGTATGTTTTGTTTCATTGACCT  
CTAGTGATACCTTGATCTTTCCCACTTTCTGTTTTCGGATTGGAGAAGATGTACCTTTTTTGTCAACTCTTACTT  
TTATCAGATGATCAACTCACGTATTTGGATCTTTATTTGTTTTCTCAATAAATATTTAAGGTTAAAAA  
AAAAA



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**FIGURE 357**

MEAAETEAEAAALEVLAEVAGILEPVGLQEEAELPAKILVEFVVDSQKKDKLLCSQLQVADFLQNILAQEDTAKG  
LDPLASEDTSRQKAIAAKEQWKELKATYREHVEAIKIGLTKALTQMEEAQRKRTQLREAFEQLQAKKQMAMEKRR  
AVQNQWQLQQEKHLQHLEVSAEVRERKTGTQQELDRVFQKLGNLKQQAEEQERDKLQRYQTFLQLLYTLQKLLF  
PEAEAEAENLPDDKPQQPTRPQEQSTGDTMGRDPGVSFKAVGLQFAGDVNLP

**FIGURE 358**

CCTTCAGCATAAAAGCTGATCCACAAACAAGAGGAGCACCAGACCTCCTCTTGGCTTCGAGATGGCTTCGCCACA  
CCAAGAGCCCAAACCTGGAGACCTGATTGAGATTTCCGCCTTGGCTATGAGCACTGGGCCCTGTATATAGGAGA  
TGGCTACGTGATCCATCTGGCTCCTCCAAGTGAGTACCCGGGGCTGGCTCCTCCAGTGTCTTCTCAGTCCTGAG  
CAACAGTGCAGAGGTGAAACGGGGGCGCCTGGAAGATGTGGTGGGAGGCTGTTGCTATCGGGTCAACAACAGCTT  
GGACCATGAGTACCAACCACGGCCCCGTGGAGGTGATCATCAGTTCTGCGAAGGAGATGGTTGGTCAGAAGATGAA  
GTACAGTATTGTGAGCAGGAACCTGTGAGCACTTTGTCGCCCAGCTGAGATATGGCAAGTCCCGCTGTAAACAGGT  
GGAAAAGGCCAAGGTTGAAGTCGGTGTGGCCACGGCGCTTGGAATCCTGGTTGTTGCTGGATGCTCTTTTGCGAT  
TAGGAGATACCAAAAAAAGCAACAGCCTGAAGCAGCCACAAAATCCTGTGTTAGAAGCAGCTGTGGGGGTCCCA  
GTGGAGATGAGCCTCCCCCATGCCTCCAGCAGCCTGACCCTCGTGCCCTGTCTCAGGCGTTCTCTAGATCCTTTC  
CTCTGTTTCCCTCTCTCGCTGGCAAAAGTATGATCTAATTGAAACAAGACTGAAGGATCAATAAACAGCCATCTG  
CCCCTTCAAAAAAAAAA

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**FIGURE 359**

MASPHQEPKPGDLIEIFRLGYEHWALYIGDGYVIHLAPPSEYPGAGSSSVFSVLSNSAEVKRGRLEDVVGGCCYR  
VNNSLDHEYQPRPVEVI ISSAKEMVGQMKYSIVSRNCEHFVAQLRYGKSRCKQVEKAKVEGVATALGILVVAG  
CSFAIRRYQKKATA

## FIGURE 360A

AGGGGGCGGCGCTCCCGGCCCATCCCTTAGCCCCGCGGCGGCCGTGTGGGCCGGAGGCTGCCTGCACCGCGTCAG  
GGAGGCCGGCCTAGAAACCCTCCCTCCCAGAAGAAAGCCGATCCCAGTTCAGGTGGGGTCTTCTCGGTTGCGTA  
CCTGGCTGGAGCCGAGCTGGTGGGCGGCCGCGAGCCGGCGTTTCTGGTGATGACAGCCCCGAAATGAAAGCAGCG  
CGGCCGCCGCTCCGAGGGCTGCAGGGAGATCAGCGTCCAGCAAATAAGAAGCAAGTCTTGGACCCGGAGGAGGA  
GGAGCGGCCGAGCATCTCTCTGCTCCGCCGTGTCTTTAGATGAGCACTCCCGGCCGGAGCCGGAGGTGGATC  
CGCAGAGCTGCCTCTGGGCGCCTGACCCCGCGCTGACATCACAACTGTGACAGGCGCATCACGCCCGGTACCTG  
CTCCCGGCCGCTGCCCGTCTCCAGCCTCTTTGTATGCCGCGAGCATGGCCAGCCAGCAGGATTGGGGCTTCTT  
TGAGATCAGTATCAAATATTTACTGAAATCCTGGAGTAATACTTCTCCCGTTGGCAACGGTTACATCAAGCCTCC  
GGTTCCACCTGCTTCTGGCAGGCACAGGGAGAAAGGGCCGCCAACCATGCTACCCATCAATGTGGACCCAGACAG  
TAAACCAGGAGAATATGTCCTCAAAAGTTTATTTGTCAACTTCACCACTCAGGCTGAACGCAAGATTTCGTATCAT  
TATGGCAGAGCCCCTGGAAGCCATTGACGAAATCTCTGCAACGTGGAGAAGACCCCCAATTTGATCAGGTCAT  
CAGCTCAATGAGCTCCCTTTCTGAGTACTGCCTGCCTTCCATTCTACGTACATTATTTGACTGGTATAAAAGGCA  
AAATGGCATTGAGGATGAATCACATGAATACAGACCAAGAACAAGCAATAAATCAAAAAGCGATGAACAACAGCG  
AGATTATTTAATGGAAAGACGGGACCTCGCCATTGATTTTATTTTTCTTTAGTATTAATAGAAGTTTTGAAACA  
GATTCCACTTCATCCTGTAATAGACAGTTTAATACATGATGTTATTAACCTGGCTTTCAAGCACTTTAAATACAA  
AGAAGGGTACCTTGGTCCCAACACTGGCAATATGCATATTGTGGCAGACCTGTATGCAGAAGTCATTGGAGTGTT  
GGCACAAGCCAAATTCCTGCTGTAAAGAAGAAATTTATGGCGGAGCTAAAAGAATTACGGCACAAAGAGCAGAA  
CCCATATGTGGTTCAAAGCATTATCAGCTTAATAATGGGCATGAAATTCCTTCGAATTAAGATGTATCCAGTGGA  
GGATTTTGAGGCCTCTCTTCAGTTTATGCAGGAATGTGCACATTACTTCCTCGAGGTCAAAGACAAAGATATCAA  
GCATGCCTTGGCTGGGCTTTTTGTTGAAATACTTGTTCAGTTGCTGCTGCTGTTAAAAATGAAGTAAATGTTCC  
CTGCCTTAGAAATTTTGTGGAAAGCCTGTATGACACCACGCTGGAACCTTCTTCTCGAAAGAAGCATTCTTTGGC  
CTTGTAACCCCTGGTGACCTGTTTGCTCTGTGTGTCAGTCAGAAGCAGCTGTTTCTGAACAGGTGGCACATTTTCTT  
CAACAACTGCTTGTCCAACCTTAAAAACAAAGATCCCAAGATGGCTCGAGTTGCACTGGAATCTCTCTACAGATT  
ACTTTGGGTTTACATGATTGCAATTAAATGTGAAAGCAACACAGCTACTCAGAGCCGACTTATAACCATCATCAC  
AACACTTTTCCCCAAAGGTC<sup>2</sup>CGCGGTGTGGTACCAAGGGACATGCCTCTGAACATCTTTGTGAAATCATCCA  
GTTTATTGCCCAGGAACGTTTAGATTTTGCAATGAAAGAAATCATTTTCGATTTTCTTTGTGTGGGAAAACCAGC  
AAAAGCATTTCAGTCTCAACCCAGAGAGAATGAACATTGGTTTACGGGCATTCTTGGTCATAGCTGATAGCTTGCA  
GCAGAAAGATGGGGAACCTCCCATGCCGGTTACAGGAGCCGTTCTTCTTCAGGAAACACGTTAAGAGTAAAGAA  
AACATATTTGAGTAAACACTAACTGAAGAGGAAGCCAAATGATAGGCATGTCCTTATATTACTCTCAAGTACG  
AAAAGCTGTAGACAACATTTTAAGGCACCTTGATAAAGAAGTAGGAAGGTGTATGATGCTGACTAATGTACAGAT  
GTTAAACAAGAACC<sup>3</sup>GGAAGACATGATCACGGGTGAGAGAAAGCCAAAATAGATCTTTTCAGGACCTGTGTTGC  
TGCTATTCTCGACTGCTTCTGTATGGGATGTCAAAACTTGAACCTTATTGACTTACTGGCTAGGCTCTCTATTCA  
TATGGATGATGAATTGCGACATATTGCACAAAATTCTCTTCAGGGTTTACTTGTGACTTCTCAGATTGGAGGGA  
AGATGTACTATTTGGCTTTACCAACTTCTGTCTCCGGGAAGTAAATGATATGCATCACACACTCCTTGATTCTGTC  
CCTGAAGTTGCTGCTGCAGCTGCTCACCCAGTGGA<sup>4</sup>AACTAGTCATCCAGACACAAGGAAAAGTCTATGAACAAGC  
CAACAAAATCAGAAATTCAGAGCTCATCGCAAATGGCTCCAGTCACAGAATTCAGTCGGAACGAGGTCCCCACTG  
CAGTGTA<sup>5</sup>CTCCACGCTGTAGAAGGTTTTGCTCTGGTTTTACTCTGCAGTTTCCAGGTGGCCACACGCAA<sup>6</sup>ACTGTC  
CGTTTTAATACTCAAGGAAATTCGAGCGTTGTTTATTGCCCTGGGGCAGCCTGAGGATGACGACAGGCCGATGAT  
TGATGTCATGGATCAGCTAAGTTCTTCCATTCTAGAAAGTTTTATTTCATGTAGCAGTTTCGGATTTCAGCAACATT  
ACCACTCACCCACAATGTGGATCTGCAGTGGTTGGTGGAATGGAACGCAGTCCTGGTCAATAGCCATTATGATGT  
GAAAAGCCCTTCCCATGTCTGGATATTTGCACAGTCTGTCAAAGACCCCTGGGTCTCTGCCTCTTCAGCTTCTT  
CCGGCAGGAGAACTTACCCAAGCACTGCCCCACAGCCCTCAGCTATGCCTGGCCTTATGCCTTCACTCGGCTCCA  
GTCGGTGATGCCTCTGGTGGACCCAAATAGCCCAATTAATGCCAAGAAAACCAGCACTGCCGGCAGCGGAGACAA  
CTATGTTACTTTGTGGAGAAATTACCTAATTCTTTGTTTTGGAGTTGCAAAACCCAGTATTATGAGCCCAGGACA  
CTTAAGAGCTTCCACTCCAGAAATAATGGCGACCACACCTGATGGTACAGTGAGCTACGATAACAAGGCCATAGG  
CACCCCATCGGTGGGAGTTCTGTTAAAGCAGTTGGTGCCTTTGATGAGACTAGAGAGCATTGAGATCACAGAGTC  
CTTAGTTTTAGGATTTGGAAGAACAATTCCCTTGTTTTAGAGAATTGGTAGAAGA<sup>7</sup>ACTTCATCCATTAATGAA  
AGAAGCTCTGGAAGAAGACCAGAGAACAAGAAACGCCGAGAAACGGCGAGACTTGTTAAGGCTACA<sup>8</sup>ACTACTTCG

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**FIGURE 360B**

AATTTTGAACTTTTGGCTGATGCTGGTGTAAATAAGTGACAGCACAAATGGAGCCCTAGAGCGGGATACTTTAGC  
CCTGGGAGCTTTGTTCTTAGAATATGTGGACTTGACCCGCATGCTCCTAGAAGCTGAAAATGACAAAGAAGTTGA  
AATTCTTAAAGATATCCGGGCACATTTTAGTGCAATGGTGGCCAACTTGATTCAGTGTGTTCCAGTTCACCACCG  
AAGATTTCTCTTCCCCCAGCAAAGTCTGAGGCACCACCTTTTCATCTTATTCAGCCAGTGGGCAGGACCCTTCAG  
CATTATGTTCACTCCTCTGGATCGTTACAGTGACAGAAATCATCAGATTACAAGATATCAGTATTGTGCATTAAA  
AGCAATGTCAGCAGTACTGTGCTGTGGCCCTGTCTTTGACAATGTGGGCCTTTCCCCAGATGGCTACCTATATAA  
ATGGCTTGACAACATTCTGGCTTGTCAAGATTTACGAGTTCATCAACTTGGCTGCGAAGTTGTTGTCTTGCTACT  
GGAACCTTAATCCTGACCAAATAAATCTTTTTAACTGGGCAATTGACCGATGCTACACAGGTTCTACCAACTTGC  
ATCTGGCTGCTTCAAAGCCATAGCAACTGTGTGTGGAAGCAGGAACTATCCCTTCGACATAGTGACATTGTTAAA  
CCTTGTTCTATTCAAGGCCTCTGACACCAACAGAGAGATTTATGAAATCTCCATGCAGCTCATGCAGATCCTTGA  
AGCAAAGCTTTTTGTATACTCAAAGAAAGTCGCTGAGCAAAGACCGGGAAGTATTCTCTATGGAACACACGGCCC  
GCTGCCACCCCTCTACAGCGTGTCACTCGCCCTCTTGTCTGTGAGCTGGCCAGGATGTACCCTGAGCTCACACT  
CCCCCTCTTCTCAGGTAAGCCAGCGATTCCCCACAACACACCCCAACGGGCGCCAGATCATGCTTACCTACCTGC  
TGCCCTGGCTGCACAACATCGAGCTGGTGGACAGCAGGCTCCTCCTCCCGGTCGAGCCCCAGCAGCCAGAGGA  
CGAAGTCAAGGACCGGGAAGGTGACGTGACTGCTTCTCACGGGCTGAGAGGAAATGGCTGGGGCTCTCCAGAAGC  
CACGTCACTGGTCTGAACAACCTCATGTACATGACGGCCAAGTATGGAGATGAAGTTCTTGGGCCAGAAATGGA  
AAATGCTTGGAATGCTTTAGCCAACAATGAGAAATGGAGCAACAACCTGAGGATCACCTTGCAGTTCCTGATTAG  
CCTCTGTGGGGTCAGCAGCGACACAGTTCCTACCTATATTAAGGAGTGGCAATATACTTGTGCCGTAACAA  
CACCATTCAAACCATGGAAGAGCTTCTCTTTGAGCTGCAGCAGACAGAACCCGTGAACCCCATCGTCCAGCATTG  
TGACAACCCGCCCTTCTACCGCTTACGGCCAGTAGCAAGGCTTCCGCAGCAGCCTCAGGAACCACTCTAGCAG  
CAATACAGTGGTTGCTGGCCAGGAAAATTTCCCAGATGCTGAGGAGAAACAAGATATTGAAAGAATCTGATGAAAG  
GTTTAGTAATGTCATCAGAGCCACACTCGCCTCGAGTCAAGATACAGCAATAGCTCTGGAGGATCCTACGATGA  
AGATAAAAATGATCCAATTTCTCCCTACACGGGCTGGTTGCTGACTATTACAGAGACCAAGCAGCCGCAGCCCTT  
ACCGATGCCTTGTACTGGAGGATGCTGGGCCCCCTGGTTGACTATCTCCCGGAGACCATCACTCCCCGGGGGCC  
ACTCCACAGGTGCAATATTGCTGTAATTTTTATGACTGAAATGGTGGTGGATCACAGTGTACGAGAAGACTGGGC  
GCTTCATCTACCATTATTACTTCATGCTGTCTTCTTAGGTTTAGACCACTACCGGCCTGAAGTCTTTGAACACAG  
CAAAAACTGCTTCTTACCTCTTGATTGCCCTCTCTTGCAACAGCAATTTCCATTCCATTGCTTCCGTGCTCCT  
GCAGACCCGAGAGATGGGTGAAGCTAAGACTCTAACCGTGCAGCCAGCCTACCAACCTGAATATCTCTATACAGG  
TGGCTTTGACTTCCTGAGAGAGGACCAGTCATCCCCGGTGCCTGACTCAGGGCTTAGTTCAAGCTCCACCTCCTC  
TAGCATCAGTCTGGGAGGCAGCAGTGGAACCTCCACAGATGACCCAGGAGGTAGAAGATGTGGACACAGCTGC  
TGAAACAGATGAGAAGGCAAACAAGCTCATTGAGTTTCTCACGACCAGGGCATTGTTGCTCCACTTTGGTGCCATGA  
AGACATCACACCTAAAAATCAAATTCAAAGAGTGCTGAACAGCTCACTAATTTCTACGTACAGTTGTATCTGT  
ATTTAAAGATTCCAATCAGGCTTCCATCTGGAGCACCAGTTGAGTGAAGTTGCATTGCAGACAGCCCTCGCAAG  
CTCTTCAAGGCACTATGCTGGTTCGTCCTTCCAGATATTCCGGGCCCTCAAGCAACCTCTGTGACACATGCCTT  
ATCTGACCTTCTCTCAAGATTGGTGGAGGTGATAGGAGAACATGGAGATGAGATTGAGGTTATGTAATGGAAGC  
GCTCCTAACCTTGGAGGCGGCTGTGGATAACTTGTCTGACTGCTTGAAGAACAGTGACCTCCTAACTGTATTGTC  
CCGCTCTTCTCACCAGATTTAAGCTCCAGCAGTAACTAACAGCAAGCAGAAAGAGCACAGGACAACCTAAACAT  
GAACCCGGGAACCAACAGCGGCAACACCGCAACTGCCGAACGGAGCCGGCATCAACGAAGCTTCTCTGTGCCAA  
GAAGTTTGGTGTATCGACCGATCCTCTGACCCACCTCGAAGTGCCACACTGGACAGAATTCAGGCTTGTACCCA  
ACAAGGCCCTCTCTCAAACAGGAGCTCATCCTCCTTGAAGGACAGTCTCACGGACCCATCCACATAAACCA  
TCCCACCAACCTGCTGGCCACCATATTCTGGGTACAGTGGCCTTGATGGAGTCTGATTTTGAAGTTTGAATACTT  
AATGGCCTTAAGGCTGTTGAGCAGACTACTGGCACATATGCCACTCGATAAGGCTGAGAACCAGAGAAAAGCTTGA  
GAACTCCAGGCACAGCTGAAGTGGGCGACTTCTCCGGCTGCAGCAGCTGCTGCTGAAAGGATTACATCCCT  
CACCACCACAGACCTGACCTGCAGCTCTTCACTGCTGCTGACACCAGTGTCCAAAATATCCATGGTGGATGCATC  
CCACGCTATTGGGTTTCACTGAATGTCTTGTGCTCCTGCCTCAGCTGATTGAGCATTGAAATCCCAATCA  
GTTCTGTAAGGATATAGCCGAAAGGATTGCTCAGGTTTGTGTTAGAAGAGAAGAACCCCAACTTTCAAATCTTGC  
ACATGTCATGACTCTTTATAAAACGCACAGCTACACGAGGGACTGTGCCACGTGGGTCAATGTGGTCTGTCGATA  
CCTTCATGAAGCATATGCTGACATTACCTTGAATATGGTTACCTACCTGGCAGAGCTGCTGGAGAAGGGCCTCCC

**FIGURE 360C**

TAGTGTGCAGCAGCCCCCTGCTCCAGGTGATCTACAGTCTTCTCAGCTACATGGACCTTTCTGTGCTTCCTGTCAA  
ACAGTTCAATGTGGAAGTTCTGAAGACAATTGAAAAATATGTGCAAAGTGTTCACTGGAGAGAAGCTCTGAATAT  
CTTGAAGCTGGTAGTTTCTCGGTCAGCCAGCCTTGTTTTACCTTCATACCAGCACAGTGACCTCTCAAAAATAGA  
AATACATCGAGTGTGGACTAGTGCTTCCAAGGAATTACCTGGGAAAACCCTGGACTTCCACTTCGATATTTTCGGA  
GACTCCAATCATCGGGAGGCGGTATGATGAGCTGCAGAATTCTTCTGGGCGTGATGGGAAGCCCAGGGCCATGGC  
CGTCACCCGGAGCACATCTTCCACTTCCTCAGGCTCCAACCTCCAACGTCCTTGTTCCAGTGAGCTGGAAAAGGCC  
CCAGTATTCTCAGAAGAGAACAAAAGAGAAGTTGGTACATGTCTTTCTCTGTGTGGCCAAGAAGTAGGATTGAG  
CAAAAATCCATCAGTGATTTTTTCATCGTGTGGGGATCTGGATCTGCTTGAGCACCAGACAAGCTTGGTATCTTC  
TGAGGACGGTGCCCCGAGAGCAGGAGAACATGGATGACACAAACAGCGAGCAGCAGTTTAGAGTCTTCAGAGACTT  
CGACTTCCTAGATGTGGAGCTGGAGGATGGAGAGGGTGAGAGTATGGACAATTTCAACTGGGGAGTGCGCAGACG  
TTCTCTGGACAGCCTGGATAAGTGTGATATGCAGATTCTGGAGGAGCGCCAAGTGTGAGGAAGCACTCCTAGCCT  
GAATAAAATGCACCATGAGGACTCCGATGAATCATCCGAGGAGGAGGACCTCACAGCCAGCCAGATCCTGGAGCA  
CTCAGACCTAATCATGACTCTCTCCCCCTCTGAAGAGACGAATCCCATGGAGCTGCTCACCACAGCCTGTGACTC  
GACCCCTGCAGAACCTCATTCTTTAACACCAGAATGTCCAGCTTTGATGCTTCCTTGCCCTGATATGAATAATCT  
GCAGATTTCTGAGGGTTCAAAGGCTGAAGCTGTTTCGTGAGGAGGAGGACACCACCGTGCATGAGGATGATCTTTC  
TAGTTCCATCAATGAACTCCCAGCAGCTTTTGAATGCAGCGACAGCTTTAGCCTGGACATGACTGAGGGGGAAGA  
AAAAGGCAATCGGGCACTGGACCAGTTTACCCTGGCGAGCTTTGGAGAAGGTGACAGGGGAGTCTCTCCCCCTCC  
CTCGCCCTTCTTCTCAGCCATCCTTGCCGCCTTTTCAGCCCGCAGCCTGTGACGATGCCGAGGAGGCCTGGCGCAG  
CCACATCAACCAGCTTATGTGTGACTCAGATGGCTCCTGTGCTGTGTATACATTTTCATGTGTTCTCCTCCTTGTT  
TAAGAATATTGAGAAAAGGTTCTGCTTCCTAACCTGTGATGCAGCCAGTTACCTTGGAGATAACCTCCGGGGAAT  
CGGATCCAAATTTGTGAGCTCTTCCCAGATGCTCACCTCCTGCTCTGAATGTCCTACACTTTTTGTGGATGCCGA  
GACTCTCCTTTTCATGTGACTTCTGGACAAGCTCAAGTTCAGTGTGTTAGAACTGCAAGAATATTTGGATACCTA  
CAACAACAGGAAAGAGGCCACACTCTCTTGGCTTGCAAATTGTAAGGCAACATTTGCAGGGGGATCAAGAGATGG  
AGTAATTACCTGTCAACCAGGGGACTCCGAAGAAAAGCAATTGGAAGTGTGTGAGAGATTATATAAGCTACACTT  
CCAGCTGCTATTGCTTTTTTCAGTCTACTGTAAGCTCATCGGCCAGGTGCACGAAGTTAGCTCCATGCCAGAGCT  
GCTGAATATGTCCAGGGAAGTGAAGTACCTAAAGAAACACCTGAAGGAAGCCAGTGCAGTCATTGCAGCTGACCC  
TCTCTATTGACAGCGCGGTGGTCCGAGCCACCTTCACGTCCACTGAAGCAGCCATCCAGTCCATGCTGGAGTG  
CCTGAAGAACAACGAACTCGGCAAAGCTTTGCGGCAGATCAGGGAGTGCAGAAGTCTGTGGCCCAATGACATCTT  
TGGAAGCAGTTCTGATGATGAGGTCCAGACACTACTGAATATTTATTTCCGTACCAAACCTCTGGGACAGACGGG  
TACTTATGCCCTGGTGGGGTCTAACCAGAGCCTGACCGAGATCTGCACCAAGCTGATGGAGCTGAACATGGAGAT  
CCGGGACATGATCCGCAGGGGCCAGAGTTACCGAGTCTCTACTACTTTTCTTCCAGACTCCAGTGTTTCTGGCAC  
TAGTCTCTGACAGGAGCCTCCTGTCCCCACTGGGTTCCAAACTGCAGTGCTGCCATGCTGGGGCAACGTCATTCA  
GTGTCTTCTCGGCCTTCAAAGGCTTGGACAGACTGTTCTCCCTCTTGTTACCTGTAGGGCTTTTTCTAAAGAGG  
ATGGCAGAAGTTCCAACGTGTAGCAATACTATAAGAACCAAGGTAGCTTAGAACGTCCTGGACAGACTCCACTCA  
TCATGCTGTGTGGCACAATGTGTTACATTTGACCGAGCATATGCAACTCGCTACTGAAGAAGTGACTTCCGTTG  
CATACCAAAGCCGACTACACTGAACAGTACCTTCCTTTCTAGAAACAATTTTAGATTGGCAAAAGTGCAATGTTT  
TCTTCACTCAAAAAATTTTATATTCTCAAACATGTATATTCTTCCCTGTCTTGTTCCATTTTCTTTTTCTTTTT  
CTTTTTCTTTTTCTTTCTTTCTGTTGGCTGAGAAAGGGCAGGCAAAATGAAGCTGGCCACTGAAAAGTGAAG  
ATGGTCAAAAGCTGACAGCCTGTGTATGTGAAAAGGGAATTGTAATGGACTGCAATGTAATGTACACTGTAATT  
TGAATACAATTACTGTATCTAAAAGGAGCTGCTATGAAGTACCTTTCTTATGTTGCTAGGCTACTGTTTCTGAAA  
GCCCTGGATCTCTTTGCACCAAAAATGGTCCAGATAGACTCTTTTAAAGGATCTTGGCTGCTTTTTACTAGAAGG  
TTGCTTTTATGAGCATATTTATACTGCTGAAGGATGAGTGTTAATTTAATTAACCTTGCCGTTTTGTAGAGAAA  
ACTATTCAAGATAAATTCGAAGTCTTTTACCTGTGAGGATGCATATTTTAAATATCTGTTTGGATAGTCAGA  
AGTAGAATCATAAAGGTAAATATGAGTTGTTACTTTGTTTCTTCGATGTCATATTTTATGTGTAATATATATGT  
AAAGGGCCATTCTTAAGTTCTCTCTTAAACTTAATGCTGTCAAGTGTTAGATGTGTGCATGTGAACCTGTTGCA  
CTGCAGAAACATATTCAGAGTTTATCTATGTAACCTTATCACTCTGTAAATACATTTAAAGTTTTTGTGATGTAA  
GCTTAATTGATATTCTGTTTCAAGACTTTCTTTAGACTAAAAAAAAAAAAAAAAAAGACAAA

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**FIGURE 361**

MASQQDSGFFEISIKYLLKSWNTSPVGNKYIKPPVPPASGTHREKGPPTMLPINVDPDSKPGEYVLKSLFVNFT  
TQAEKIRIIMAEPLEKPLTKSLQRGEDPQFDQVISSMSSLSEYCLPSILRTLFDWYKRQNGIEDESHEYRPRTS  
NKSKSDEQQRDYLMERRDLAIDFIFSLVLIEVLKQIPLHPVIDSLIHDVINLAFKHFKYKEGYLGPNTGNMHIVA  
DLYAEVIGVLAQAKFPAVKKKFMAELKELRHKEQNPYVVQSIISLIMGKFFRIKMPVEDFEASLQFMQECAHY  
FLEVKDKDIKHALAGLFEVILVPVAAAVKNEVNVPCLRNFLVESLYDTTLELSSRKKHSLALYPLVTCLLCVSQKQ  
LFLNRWHIFLNNCLSNLKNKDPKMARVALESYRLLWVYMIRIKCESNTATQSRITITITLFPKSGRGVVPDM  
PLNIFVKIIQFIAQERLDFAMKEIIFDFLCVGKPAKAFSLNPERMNIGLRAFLVIADSLQQKDGEPPMPVTGAVL  
PSGNTLRVKKTYLSKLTTEEEAKMIGMSLYYSQVRKAVDNILRHLDKEVGRCMMLTNVQMLNKEPEDMITGERKP  
KIDLFRTCVAAIPRLLPDGMSKLELIDLLARLSIHMDDEL RHIAQNSLQGLLVDFS DWREDVLF GFTN FLLREV N  
DMHHTLLDSSLKLLQLLTQWKLVIQTQGVYEQANKIRNSEL IANGSSHRIQSERGPHCSVLHAVEGFALVLLC  
SFQVATRKL SVLILKEIRALFIALGQPEDDDRPMIDVMDQLSSSILESFIHVAVSDSATLPLTHNVDLQWLVEWN  
AVLVNSHYDVKSPSHVWIFAQSVKDPWVLCFSFLRQENLPKHCPTALS YAWPYAFTR LQSV MPLVDPNSP INAK  
KTSTAGSGDNVYTLWRNYLILCFGVAKPSIMSPGHLRASTPEIMATTPDGTVSYDNKAIGTPSVGVLLKQLVPLM  
RLESIEITESLVLGFGRTNSLVFRELVEELHPLMKEALERRPENKKRRERRDLLRLQLLRIFELLADAGVISDST  
NGALERDTLALGALFLEYVDLTRMLLEAENDKEVEILKDIRAHFSAMVANLIQCVPVHHRRLFPQQSLRHHLFI  
LFSQWAGPFSIMFTPLDRYSDRNHQITRYQYCALKAMSAVLCCGPVFDNVGLSPDGYLYKWLDNILACQDLRVHQ  
LGCEVVVLLLELNPQINLFWAIDRCYTGSYQLASGCFKAIATVCGSRNYPFDIVTLLNLVLFKASDTNREIYE  
ISMQLMQILEAKLFVYSKKVAEQRPGSILYGTHGPLPLYSVSLALLSCELARMYPELTLP LFSGKPAIPHNT PQ  
RAPDHAYLPAALAAQHRAGGQQAPPPGSSPSPPEDEVKDREGDVTASHGLRGNGWGSPEATSLVLNNLMYMTAKY  
GDEVPGPEMENAWNALANNEKWSNNLRITLQFLISLCGVSSDVTLLPYIKKVAIYLCRNNTIQTMEELLFELQOT  
EPVNP IVQHCDNPPFYRFTASSKASAAASGTTSSSNTVVAGQENFPDAEENKILKESDERFSNVIRAHTRLSRY  
SNSSGGSYDEDKNDPISPYTGWLLTITETKQPQLPMPCTGGCWAPLVDYLPETITPRGPLHRCNIAVIFMTEMV  
VDHSVREDWALHLP LLLHAVFLGLDHYRPEVFEHSKLLHLHLLIALSCNSNFHSIASVLLQTREMGEAKTLTVQP  
AYQPEYLYTGGFDFLREDQSSPVPD SGLSSSSTSSSISLGGSSGNLPQMTQEVEDVDTAETDEKANKLIEFLT  
RAFGPLWCHEDITPKNQNSKSAEQLTNFLRHVVS VFKDSKSGFHLEHQLSEVALQTALASSSRHYAGRSFQIFRA  
LKQPLSAHALSDLLSRLVEVIGEHGDEIQGYVMEALLTLEAAVDNLS DCLKNSDLLTVLSRSSSPDLSSSSKLTA  
SRKSTGQLNMNPGTTSGNTATAERSRHQRSFSVPKKFGVIDRSSDPPRSA

**FIGURE 362**

TTCCCCCCCCCCCCCCCCCCCCCGCCCGAGCACAGGACACAGCTGGGTTCCTGAAGCTTCTGAGTTCTGCAGCCT  
CACCTCTGAGAAAACCTCTTTTCCACCAATACCATGAAGCTCTGCGTGACTGTCCTGTCTCTCCTCATGCTAGTA  
GCTGCCTTCTGCTCTCCAGCGCTCTCAGCACCAATGGGCTCAGACCCTCCCACCGCCTGCTGCTTTTCTTACACC  
GCGAGGAAGCTTCCTCGCAACTTTGTGGTAGATTACTATGAGACCAGCAGCCTCTGCTCCCAGCCAGCTGTGGTA  
TTCCAAACCAAAAGAAGCAAGCAAGTCTGTGCTGATCCCAGTGAATCCTGGGTCCAGGAGTACGTGTATGACCTG  
GAACTGAACTGAGCTGCTCAGAGACAGGAAGTCTTCAGGGAAGGTCACCTGAGCCCGGATGCTTCTCCATGAGAC  
ACATCTCCTCCATACTCAGGACTCCTCTCCGCAGTTCCTGTCCCTTCTCTTAATTTAATCTTTTTTATGTGCCGT  
GTTATTGTATTAGGTGTCATTTCCATTATTTATATTAGTTTAGCCAAAGGATAAGTGTCTATGGGGATGGTCCA  
CTGTCACTGTTTCTCTGCTGTTGCAAATACATGGATAACACATTTGATTCTGTGTGTTTTCCATAATAAACTTT  
AAAATAAAATGCAGACAGTTA



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**FIGURE 363**

MKLCVTVLSLLMLVAAFCSFALSAPMGSDPPTACCFSTARKLPRNFVVDYYETSSLCSQPAVVFQTKRSKQVCA  
DPSESWVQEYVYDLELN

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**FIGURE 364**

GGCACGAGGCTCGTGCCGCCGGGCTCTTGGTACCTCAGCGGAGCGCCAGGCGTCCGGCCGCCGTGGCT**ATGTT**  
CGTGTCGATTTCGCAAAGAGTTCTACGAGGTGGTCCAGAGCCAGAGGGTCCTTCTCTTCGTGGCCTCGGACGT  
GGATGCTCTGTGTGCGTGCAAGATCCTTCAGGCCTTGTTCCAGTGTGACCACGTGCAATATACGCTGGTTCCAGT  
TTCTGGGTGGCAAGAACTTGAACTGCATTTCTTGAGCATAAAGAACAGTTTCATTATTTTATTCTCATAACTG  
TGGAGCTAATGTAGACCTATTGGATATTCTTCAACCTGATGAAGACACTATATTCTTTGTGTGTGACACCCATAG  
GCCAGTCAATGTCTCAATGTATACAACGATACCCAGATCAAATTACTCATTAAACAAGATGATGACCTTGAAGT  
TCCCGCCTATGAAGACATCTTCAGGGATGAAGAGGAGGATGAAGAGCATTTCAGGAAATGACAGTGTGGGTGAGA  
GCCTTCTGAGAAGCGCACACGGTTAGAAGAGGAGATAGTGGAGCAAACCATGCGGAGGAGGCAGCGCGAGAGTG  
GGAGGCCCGGAGAAGAGACATCCTCTTTGACTACGAGCAGTATGAATATCATGGGACATCGTCAGCCATGGTGAT  
GTTTGAGCTGGCTTGATGCTGTCCAAGGACCTGAATGACATGCTGTGGTGGGCCATCGTTGGACTAACAGACCA  
GTGGGTGCAAGACAAGATCACTCAAATGAAATACGTGACTGATGTTGGTGTCTGTCAGCGCCACGTTTCCCGCCA  
CAACCACCGGAACGAGGATGAGGAGAACACACTCTCCGTGGACTGCACACGGATCTCCTTTGAGTATGACCTCCG  
CCTGGTGCTCTACCAGCACTGGTCCCTCCATGACAGCCTGTGCAACACCAGCTATACCGCAGCCAGGTTCAAGCT  
GTGGTCTGTGCATGGACAGAAGCGGCTCCAGGAGTTCTTGCAGACATGGGTCTTCCCCTGAAGCAGGTGAAGCA  
GAAGTTCCAGGCCATGGACATCTCCTTGAAGGAGAATTTGCGGGAAATGATTGAAGAGTCTGCAATAAATTTGG  
GATGAAGGACATGCGCGTGCAGACTTTCAGCATTCATTTTGGGTTCAGGCACAAGTTTCTGGCCAGCGACGTGGT  
CTTTGCCACCATGTCTTTGATGGAGAGCCCCGAGAAGGATGGCTCAGGGACAGATCACTTCATCCAGGCTCTGGA  
CAGCCTCTCCAGGAGTAACCTGGACAAGCTGTACCATGGCCTGGAATCGCCAAGAAGCAGCTGCGAGCCACCCA  
GCAGACCATTGCCAGCTGCCTTTGCACCAACCTCGTCATCTCCAGGGGCCTTTCCTGTACTGCTCTCTCATGGA  
GGGCACTCCAGATGTCATGCTGTTCTCTAGGCCGGCATCCCTAAGCCTGCTCAGCAAACACCTGCTCAAGTCCTT  
TGTGTGTTGACAAAGAACCGGCGCTGCAAACTGCTGCCCCCTGGTGATGGCTGCCCCCTGAGCATGGAGCATGG  
CACAGTGACCGTGGTGGGCATCCCCCAGAGACCGACAGCTCGGACAGGAAGAACTTTTTTGGGAGGGCGTTTGA  
GAAGGCAGCGGAAAGCACCAGCTCCCGGATGCTGCACAACCATTTTGACCTCTCAGTAATTGAGCTGAAAGCTGA  
GGATCGGAGCAAGTTTCTGGACGCATTATTTCCCTCCTGTCC**TAGGA**ATTGATTCTTCCAGAATGACCTTCTT  
ATTTATGTAAGTGGCTTTTCAATTTAGATTGTAAGTTATGGACATGATTTGAGATGTAGAAGCCATTTTTTATTAAA  
TAAATGCTTATTTTAGGCTCCGTCCCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

**FIGURE 365**

MFVSDFRKEFYEVVQSQRVLLFVASDVDALCACKILQALFQCDHVQYTLVPVSGWQELETAFLEHKEQFHYFILI  
NCGANVDLLDILQPDEDTIFFVCDTHRPVNVVNVYNDTQIKLLIKQDDDLVPAYEDIFRDEEEDDEHSGNDSGD  
SEPSEKRTRLEEEIVEQTMRRRQRREWEARRRDILFDYEQYEHGTSSAMVMFELAWMLSKDLNDMLWWAIVGLT  
DQWVQDKITQMKYVTDVGVLQRHVSRRNHRNEDEENTLSVDCTRISFEYDLRLVLYQHWSLHDSLCNTSYTAARF  
KLWSVHGQKRLQEFLADMGLPLKQVKQKFQAMDISLKENLREMIEESANKFGMKDMRVQTFSTHFGFKHKFLASD  
VVFATMSLMESPEKDGSCTDHFIAQALDSLRSNLDKLYHGLELAKKQLRATQQTIASCLCTNLVISQGPFLYCSL  
MEGTPDVMLFSRPASLSLLSKHLLKSFVCSTKNRRCKLLPLVMAAPLSMEHGTVTTVGIPPETDSSDRKNFFGRA  
FEKAAESTSSRMLHNHFDLSVIELKAEDRSKFLDALISLLS

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**FIGURE 366**

GC GGGATTTTCAAGCGTAGGCCCGGGAAGCTCGAGCTGCC**ATG**AGCCTCTGGGTGGACAAGTATCGGCCCTGCT  
CCTTGGGACGGCTGGACTATCACAAGGAGCAGGCGGCCAGCTGCGGAACCTGGTGCAGTGTGGTGACTTTCCTC  
ATCTGTTAGTGTACGGACCATCAGGTGCTGGAAAAAGACAAGAATTATGTGTATTCTACGTGAACTTTATGGTG  
TTGGAGTGGAAAAATTGAGAATTGAACATCAGACCATCACAACCTCCATCTAAAAAAAATTGAAATTAGCACCA  
TTGCAAGTAACTACCACCTTGAAGTTAATCCTAGTGATGCTGGAAATAGTGACCGAGTAGTCATTGAGGAGATGT  
TGAAAAAGTGGCACAATCACAACAACCTTGAACAAACTCTCAAAGGGATTTTAAAGTGGTATTATTGACAGAAG  
TTGACAAACTCACCAAAGATGCTCAGCATGCCTTGCGAAGAACCATGGAAAAATATATGTCTACCTGCAGATTGA  
TCTTGCTGCTGCAATTCTACATCTAAAGTGATCCACCTATTCTAGTAGGTGCTTGGCGGTTCTGTGCTGCTC  
CCAGCATTGAAGATATTTGCCACGTGTTATCTACTGTGTGTAAGAAGGAAGGTCTGAATCTTCCTTCACAACCTGG  
CTCATAGACTTGCAGAGAAGTCTTGTAGAAATCTCAGAAAAAGCCCTGCTTATGTGTGAAGCCTGCAGAGTGCAAC  
AATATCCTTTTACTGCAGATCAAGAAATCCCTGAGACAGATTGGGAGGTGTATCTGAGGGAGACTGCAAAATGCTA  
TTGTGAGTCAGCAAACCTCCACAAGGCTCCTTGAAGTTTCGTGGAAGGCTGTATGAGCTTCTAACTCATTGTATTC  
CTCCTGAGATAATAATGAAGGGCCTTCTCTCAGAACTGTTACATAATTGTGATGGACAACCTGAAAGGGGAGGTGG  
CACAAATGGCAGCTTACTATGAGCATCGTCTACAGCTGGGTAGCAAAGCCATTTATCACTTGGAAAGCGTTTGTGG  
CCAAATTGATGGCACTTTATAAGAAGTTCATGGAGGATGGATTGGAAGGCATGATGTTCT**TGAC**TTCTGTGAGTTA  
TTCTTGCAAGATTTCTCAGTATCAGTATTTACATACAGCTTATATTAAAGAGCTGTGGGTAAATTAAGTGAAC  
TTAATCATGTCGTATTTGCGTTTTTTTGGTAATAACTTCTCTGTGAACCTATTAATCATCCTCTGAGTTAAATAAT  
TGCTCCTATACTATTGAAGTATGTAGTTTTGTACATAACTTAGAGACTTTAGAGTCTAAGAAAATGATCTTAATT  
TACTTTAAGCATTGGTTATTCAAGTATTCATTGTTGATCCTCCTATTCTCTTCCGTCTAATCTCTCACCTGCTAA  
AGGAGATTTACACATTAGAAAGCAAAGATTATTTTCATTTATCCAGATGACCATTTTCTGCCACAGGTAACATGA  
TTGTTTGACACACCATTATATTTAATTCTAGTTTCTCTCAATGAATAATTGTATTTTTGTAGGAAATGTAAGATT  
TCATTCTGAAACATAATTATTGGTATGGACAAAATTGCAGATACCATTTCTGTTGAGGCTGCAGATTTCCAACCTT  
TTATTTGAGTGGTTCAGATTAGTATTAGGTGCGTACTAAGAAATAAGCATGTTTTCTACTAATTTAAGTACTTGAG  
ACTCTTGAAAGAAATTGAGAATGAAGTTCTGGAGAAAGGTATGTTACTGTAGTAATTACTCTTTGAACAGGTTTT  
GTGTTTTGTCATTAGCTCTGCCCTTTTTAATTAATAATTTTGGTTCATGGACCAAAGGGTTTACTTGACAAATTT  
GTGTGACAGACTCCGAACAATTCCTTTACTACGAAGTATAATTTATAAAATAAAATATACCCATTTTAAGGGTAC  
AGTTTGATTTTTGACCAGTGAAACTATGATCCCAATCAAGGTATAGATGCCGTCACCCCAAAAGTTCCCTCCAT  
ATCCCTTTGCAGTCAGTTCATCCCTACCCTGGCCCAGATGATCACTGATCTTGTCATTATAGATGAGTTTTGCCA  
GTTCAAGAATTTAATGGAATCAGATATTGTAAGCATTCTTGTTGAATACTTCATTCTCTCATTATTGAGATTC  
ATCCATATTGTTGAATGTTTCACTAGTTAATGTTTATTGTTCAATATTTTTGTATATACTTTTAAAGCCTATTCA  
CTTGCTGATGGATCTTTGGTTTGTTCAGGTTTGGTTATTATGAATAAAGTTGCTGTGAATAAAAAAAAAAAAAA  
AAAAAA

**FIGURE 367**

MSLWVDKYRPCSLGRLDYHKEQAAQLRNLVQCGDFPHLLVYGPSGAGKKTRIMCILRELYGVGVEKLRIEHQTIT  
TPSKKKIEISTIASNYHLEVNP SDAGNSDRVVIQEMLKTVAQSQQLETN SQRDFKVVLLEVDKLT KDAQHALRR  
TMEKYMSTCRLILCCNSTSKVIPPIRSRCLAVRVPAPSI EDICHVLSTVCKKEGLNLP SQLAHR LAEKSCRNLRK  
ALLMCEACRVQQYPFTADQEIPETDWEVYLRETANAIVSQQTPQRLLEVGRGRLYELLTHCIPPEIIMKGLLSELL  
HNCDGQLKGEVAQMAAYYEHRLQLGSKAIYHLEAFVAKFMALYKKFMEDGLEGMMF

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**FIGURE 368**

CGAGCTGCC**ATG**AGCCTCTGGGTGGACAAGTATCGGCCCTGCTCCTTGGGACGGCTGGACTATCACAAGGAGCAG  
GCGGCCCAGCTGCGGAACCTGGTGCAGTGTGGTGACTTTCCTCATCTGTTAGTGTACGGACCATCAGGTGCTGGA  
AAAAAGACAAGAATTATGTGTATTTTACGTGAACCTTATGGTGTTGGAGTGAAAAATTGAGAATTGAACATCAG  
ACCATCACAACTCCATCTAAAAAAAATTGAAATTAGCACCATTGCAAGTAACTACCACCTTGAAGTTAATCCT  
AGTGATGCTGGAAATAGTGACCGAGTAGTCATTTCAGGAGATGTTGAAAACAGTGGCACAATCACAACAACCTTGAA  
ACAAACTCTCAAAGGGATTTTAAAGTGGTATTATTGACAGAAGTTGACAAACTCACCAAAGATGCTCAGCATGCC  
TTGCGAAGAACCATGGAAAAATATATGTCTACCTGCAGATTGATCTTGTGCTGCAATTCTACATCTAAAGTGATC  
CCACCTATTTCGTAGTAGGTGCTTGGCGGTTTCGTGTGCCTGCTCCCAGCATTGAAGATATTTGCCACGTGTTATCT  
ACTGTGTGTAAGAAGGAAGGTCTGAATCTTCCTTCACAACCTGGCTCATAGACTTGCAGAGAAGTCTTGTAGAAAT  
CTCAGAAAAGCCCTGCTTATGTGTGAAGCCTGCAGAGTGCAACAATATCCTTTTACTGCAGATCAAGAAATCCCT  
GAGACAGATTGGGAGGTGTATCTGAGGGAGACTGCAAATGCTATTGTCAGTCAGCAAACCTCCACAAAGGCTCCTT  
GAAGTTCGTGGAAGGCTGTATGAGCTTCTAACTCATTGTATTCCCTCCTGAGATAATAATGAAGGGCCTTCTCTCA  
GAACTGTTACATAATTGTGATGGACAACCTGAAAGGGGAGGTGGCACAATGGCAGCTTACTATGAGCATCGTCTA  
CAGCTGGGTAGCAAAGCCATTTATCACTTGGAAAGCGTTTGTGGCCAAATTCATGGCACTTTATAAGAAGTTCATG  
GAGGATGGATTGGAAGGCATGATGTTCT**TGAC**TTCTGTTCAGTTATTCTTGCAAAGATTTCTCAGTATCAGTATTTA  
CATACAGCTTATATTTAAAGAGCTGTGGGTAAATTAACCTGAACCTAATCATGTCGTATTTGGGTTTTTTTGGTAA  
TAACTTCTCTGTGAACCTATTAATCATCCTCTGAGTTAAATAATTGCTCCTATACTATTGAAGTATGTAGTTTTGT  
ACATAACTTAGAGACTTTAGAGTCTAAGAAAATGATCTTAATTTACTTTAAGCATTGGTTATTCAAGTATTCATT  
GTTGATCCTCCTATTCTCTTCCGTCTAATCTCTCACCTGCTAAAGGAGATTTACACATTAGAAAGCAAAGATTAT  
TTTCATTTATCCAGATGACCATTTTCTGCCACAGGTAACATGATTGTTTGACGG

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**FIGURE 369**

MSLWVDKYRPCSLGRLDYHKEQAAQLRNLVQCGDFPHLLVYGPSGAGKKTRIMCILRELYGVGVEKLRIEHQTIT  
TPSKKKIEISTIASNYHLEVNPSDAGNSDRVVIQEMLKTVAQSQQLETNSQRDFKVVLLTEVDKLTKDAQHALRR  
TMEKYMSTCRLILCCNSTSKVIPP IRSRCLAVRVPAPSI EDICHVLSTVCKKEGLNLP SQLAHLRAEKSCRNLRK  
ALLMCEACRVQQYPFTADQEIPETDWEVYLRETANAIVSQQTPQRLLEVGRGRLYELLTHCIPPEIIMKGLLSELL  
HNCDGQLKGEVAQMAAYYEHRLQLGSKAIYHLEAFVAKFMALYKKFMEDGLEGMMF

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**FIGURE 370**

AGTCTCCGGCGAGTTGTTGCCTGGGCTGGACGTGGTTTTGTCTGCTGCGCCCGCTCTTCGCGCTCTCGTTTCATT  
TTCTGCAGCGCGCCACGAGGATGGCCCACAAGCAGATCTACTACTCGGACAAGTACTTCGACGAACACTACGAGT  
ACCGGCATGTTATGTTACCCAGAGAACTTTCCAAACAAGTACCTAAAACATCTGTATGTCTGAAGAGGAGTGGA  
GGAGACTTGGTGTCCAACAGAGTCTAGGCTGGGTTTATTACATGATTCATGAGCCAGAACCACATATTCTTCTCT  
TTAGACGACCTCTTCCAAAAGATCAACAAAAATGAAAGTTTATCTGGGGATCGTCAAATCTTTTTCAAATTTAATG  
TATATGTGTATATAAGGTAGTATTCAGTGAATACTTGAGAAATGTACAAATCTTTCATCCATACCTGTGCATGAG  
CTGTATTCTTCACAGCAACAGAGCTCAGTTAAATGCAACTGCAAGTAGGTTACTGTAAGATGTTTAAGATAAAAG  
TTCTTCCAGTCAGTTTTTCTCTTAAGTGCCTGTTTGAGTTTACTGAAACAGTTTACTTTTGTTCAATAAAGTTTG  
TATGTTGCATTTAAAAAAAAAAAAAAAAA



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**FIGURE 371**

MAHKQIYYSDKYFDEHYEYRHVMLPRELSKQVPKTHLMSEEEWRRRLGVQQSLGWVHYMIHEPEPHILLFRRPLPK  
DQQK

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**FIGURE 372**

GAATTCCTCCAAACGTGCACAGGGGAGTGAGGGCAGGGCGCTCGCAGGGGGCACGCAGGGAGGGCCCAGGGCGCCAG  
GGAGGCCGCGCCGGGCTAATCCGAAGGGGCTGCGAGGTCAGGCTGTAACCGGGTCAATGTGTGGAATATTGGGGG  
GCTCGGCTGCAGACTTGGCCAAATGGACGGGACTATTAAGGAGGCTCTGTCGGTGGTGAGCGACGACCAGTCCCT  
CTTTGACTCAGCGTACGGAGCGGCAGCCCATCTCCCCAAGGCCGACATGACTGCCTCGGGGAGTCTTGACTACGG  
GCAGCCCCACAAGATCAACCCCTCCCACCACAGCAGGAGTGGATCAATCAGCCAGTGAGGGTCAACGTCAAGCG  
GGAGTATGACCACATGAATGGATCCAGGGAGTCTCCGGTGGACTGCAGCGTTAGCAAATGCAGCAAGCTGGTGGG  
CGGAGGCGAGTCCAACCCCATGAACTACAACAGCTATATGGACGAGAAGAATGGCCCCCTCCTCCCAACATGAC  
CACCAACGAGAGGAGAGTATCGTCCCCGAGACCCACACTGTGGACACAGGAGCATGTGAGGCAATGGCTGGA  
GTGGGCCATAAAGGAGTACAGCTTGATGGAGATCGACACATCCTTTTTCCAGAACATGGATGGCAAGGAACTGTG  
TAAAATGAACAAGGAGGACTTCTCCGCGCCACCACCTCTACAACACGGAAGTGCTGTTGTACACCTCAGTTA  
CCTCAGGGAAAGTTCACTGCTGGCCTATAATACAACCTCCCACACCGACCAATCCTCAGATTGAGTGTCAAAGA  
AGACCTTCTTATGACTCAGTCAGAAGAGGAGCTTGGGGCAATAACATGAATTCTGGCCTCAACAAAAGTCTCTC  
CCTTGAGGGGCACAAACGATCAGTAAGAATACAGAGCAACGGCCCCAGCCAGATCCGTATCAGATCCTGGGGCC  
GACCAGCAGTCGCCTAGCCAACCTGGAAGCGGGCAGATCCAGCTGTGGCAATCCTCCTGGAGCTGCTCTCCGA  
CAGCGCCAACGCCAGCTGTATCACCTGGGAGGGGACCAACGGGGAGTTCAAATGACGGACCCCGATGAGGTGGC  
CAGGCGCTGGGGCGAGCGGAAAAGCAAGCCCAACATGAATTACGACAAGCTGAGCCGGGCCCTCCGTTATTACTA  
TGATAAAAACATTATGACCAAAGTGACGGCAAAAGATATGCTTACAAATTTGACTTCCACGGCATTGCCAGGC  
TCTGCAGCCACATCCGACCGAGTCGTCCATGTACAAGTACCCTTCTGACATCTCCTACATGCCTTCTTACCATGC  
CCACCAGCAGAAGGTGAACCTTTGTCCCTCCCCATCCATCCTCCATGCCTGTCACTTCTCCAGCTTCTTTGGAGC  
CGCATCACAATACTGGACCTCCCCACGGGGGAATCTACCCCAACCCCAACGTCCCCGCCATCTAACACCCA  
CGTGCTTCACACTTAGGCAGCTACTACTAGAGCTTCTTCTAGCTGAAGCCCATCCTGCACACTTACTGGATGC  
TTTGGACTCAACAGGACATATGTGGCCTTGAAGGGAAGACAAAACCTGGATGTTCTTTCTTGTGGATAGAACCTT  
TGTATTTGTTCTTTAAAAACATTTTTTTTTAATGTTGGTAACTTTTGCTTCTCTACCTGAACAAAGAGATGAATA  
ATTCCATGGGCCAGTATGCCAGTTTGAATTCTCAGTCTCCTAGCATCTTGTGAGTTGCATATTAAGATTACTGGA  
ATGGTTAAGTCATGGTTCTGAGAAAGAAGCTGTACGTTTTCTTTATGTTTTTATGACCAAAGCAGTTTCTTGTCA  
ATACACGGGGTTCACTATGACACAGAATCATGGACTTAACCCGTCATGTTCTGGTTTGAGATTTAGTGACAAATA  
GAGGTGGGAAGCTTATAATCTAATTTTAGGAGGACCAATTCAGCGGATGGCAACTGGAACATTGATTGTAAGGC  
CAGTGAAGTTTTACCCAACTGGAATTTGATGGAAAGAAGGTTTGTGTGTTTAAGACGCCAAGGGCATTGCAGAA  
TCCCTCTCAGTGGACAGTATGCACTCAGCTGACCACTCTCTCTAGAAATAGTCAAGATATGAACTAAGAAATTTT  
AATGCAAAATACATACATTCTGAAAGACGGGGAATTAAATTACTAATTTTTTTTTTTTAAATGATGACAGTGGTC  
CCAGAACTTGAAAAAGTTGTAGGGATTTCTAAACTCAAGCAGATTGCAAGTGCTGTGCGCTTGTGACACCATCA  
GACCAGGGCCAACCAATCAGAAGGCAACTTACTGTATAAATTATGCAGAGTTATTTTCTATATCTCACAGTATT  
AAAAAATAAATAATTAATAAATAAATAAACGAGTTGACCTCGGTCACAAAAGCAGTTTTACTATCGAAT  
CAATCGCTGTTATTTTTTTTTAATGTAATTTGTACATCTTTTTTCAATCTGTACATTTGGGCTGTCTTGTATGTT  
TTTATGCTCCTTTTTTAAAAAGCATAATATGCCTATAGCTGAAAAGGAAACAGGGCTGTTTAAGTCACTGACTTAT  
GAGAAAGCAAAGCACTGGTACAGTTATTTAACAGGCATACACAAGCAGGGAAAAGATAATCCATTTAGATCTTTA  
ATGCTTTGGAAATGCGTGTAACAGTACTGCAATAATCACAGCTCTGGGAAAAACAACGAACTTTCCCTTGTGGA  
GAGGAGGGATTTTCTGCTCTATATAAGCAACATATTTTTAGACATTAAATATATATAATTTTGCAGGTAATTG  
TTGACTTTTTTAACTATATTAAGTGTTAAGCTGACAACCTGTCAAAGAAGACCATGTTGTAAATAATTTGACTAA  
ATAAATGGTTCTTCTCTCAAAAAAAAAAAAAA

**FIGURE 373**

MDGTIKEALSVVSDDQSLFDSAYGAAHLPKADMTASGSPDYGQPHKINPLPPQEWINQFVRVNVKREYDHMNG  
SRESPVDCSVSKCSKLVGGESNPMNYNSYMDEKNGPPPNMTTNERRVIVPADPTLWTQEHVRQWLEWAIKEYS  
LMEIDTSFFQNMDGKELCKMNKEDFLRATTLYNTEVLLSHLSYLRESSLLAYNTTSHTDQSSRLSVKEDPSYDSV  
RRGAWGNMNSGLNKSPPPLGGAQTISKNTEQRPQDPYQILGPTSSRLANPGSGQIQLWQFLLELLSDSANASCI  
TWEGTNGEFKMTDPDEVARRWGERKSKPNMNYDKLSRALRYYYDKNIMTKVHGKRYAYKFDFHGIAQALQPHPT  
SSMYKYPDISYMP SYHAHQKVNFVPPHPSSMPVTSSSFFGAASQYWTSPTGGIYPNPNVPRHPNTHVPSHLGS  
YY

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**FIGURE 374A**

CGGCGCGGGTGTGAGAGCGGTGTGGTAGGTGTTGTAGCCGCTATGGTGAAGTTCGCTTTGTAGCGGCCCCGGCT  
AGAGAGTTGGCCTGTTCCCTGCCTTTGTGACCCGGAGGAGCTTTTGGGGGTGCGTCAAGCCCCTGGCCTGAGGCA  
GCGAACTGGTTTGTGGCCTGTTTGATTCTGTGAGAGGTTTGTGACCCAAGACAGTATCGAAAATGCATATTAA  
GTCAATTATTCTAGAGGGATTCAAGTCCTATGCTCAGAGGACCGAAGTCAATGGTTTTGACCCCTCTTCAATGC  
TATCACTGGCTTAAATGGTAGTGGGAAATCCAACATATTGGACTCCATCTGCTTTTTACTGGGCATCTCCAACCT  
GTCTCAGGTTGCGGCTTCTAATTTACAAGATTTAGTTTACAAAAATGGGCAGGCTGGTATTACCAAAGCCTCTGT  
GTCAATCACTTTTGATAATTCTGACAAAAAGCAAAGTCCTTTAGGATTTGAGGTTTCATGATGAAATCACAGTAAC  
AAGGCAGGTGGTTATTGGTGGTAGAAATAAATATTTAATCAATGGAGTCAATGCCAACAACACCAGAGTACAGGA  
TCTCTTCTGTTCTGTTGGCCTTAATGTTAACAACCTTCACTTTCTCATCATGCAGGGCCGAATTACAAAAGTATT  
GAATATGAAACCACCAGAGATTTTATCCATGATAGAAGAAGCAGCTGGAACCAGGATGTATGAATACAAAAAAT  
AGCTGCACAGAAAACTATAGAAAAAAGGAGGCTAAGCTGAAAGAAATTAAGACGATACTTGAAGAAGAGATTAC  
TCCAACCATTCAAAAATTAAAAGAGGAAAGATCGTCTACTTGGAGTACCAAAAAGTAATGAGAGAAATAGAACA  
TTTGAGTCGTTTATATATTGCTTATCAGTTTTTGTGCGCTGAAGATACCAAAGTACGCTCAGCTGAGGAATTAAA  
AGAAATGCAAGATAAAGTTATAAAGCTTCAGGAAGAATTGTCTGAGAATGATAAAAAAATAAAGCACTTAATCA  
TGAAATAGAAGAATTGGAAAAAGAAAAGATAAGGAACTGGAGTTATACTTCGATCTTTAGAAGATGCTCTTGC  
AGAGGCTCAGCGAGTTAATACTAAATCTCAAAGCGCATTTGATCTCAAGAAGAAAAATCTGGCATGTGAGGAAAG  
CAAACGCAAAGAGCTGGAAAAAATATGGTTGAGGACTCAAAAACCTTAGCAGCAAAGGAAAAAGAGGTTAAAAA  
GATAACAGATGGACTGCATGCCCTTCAAGAAGCAAGTAATAAAGATGCTGAAGCTCTGGCAGCTGCACAGCAGCA  
CTTCAATGCTGTTTCCGCTGGCCTGTCCAGTAATGAAGATGGAGCAGAAGCAACTCTTGCTGGTCAAATGATGGC  
CTGTAAAAATGATATAAGTAAAGCTCAGACAGAAGCCAAACAGGCTCAGATGAAGTTGAAGCATGCTCAACAGGA  
ATTAAGAATAAAACAAGCTGAAGTTAAGAAGATGGATAGTGGCTACAGGAAGGATCAAGAAGCTCTAGAAGCTGT  
AAAAAGACTTAAAGAAAACTTGAAGCTGAAATGAAAAAGCTAAATTATGAAGAAAATAAAGAGGAAAGCCTTTT  
GGAAAAGCGCAGGCAGCTGTCTCGTGATATTGGTAGATTGAAAGAAACATATGAAGCTCTATTAGCCAGATTTCC  
CAATCTTCGATTTGCATACAAGGATCCAGAGAAGAACTGGAATAGAAATTGTGTGAAAGGACTTGTGGCTTCTCT  
GATTAGTGTGAAAGACACTTCTGCAACCACAGCTTTAGAATTAGTGGCTGGAGAACGACTCTACAATGTTGTAGT  
AGACACAGAAGTTACTGGTAAAAAGCTACTAGAAAGGGGGGAACTGAAACGTCGATACACTATAATTCCACTCAA  
TAAAATTTACGCCAGATGTATTGCACCAGAACTCTGAGAGTTGCTCAGAATCTTGTTGGCCCTGACAACGTTCA  
TGTGGCTCTTTCCTTGTTGAATATAAACCAGAACTTCAGAAAGCAATGGAGTTTGTCTTTGGAACAACATTTGT  
TTGTGACAATATGGATAATGCCAAAAAAGTGGCCTTTGATAAGAGGATAATGACTAGAACTGTAACCTCTCGGAGG  
TGATGTGTTTGATCCTCATGGGACATTGAGTGGAGGTGCTCGATCCCAGGCAGCTTCCATTTTAACCAAGTTTCA  
AGAACTCAAAGATGTTCAAGATGAACTGAGAATCAAAGAGAATGAGCTGCGGGCTCTAGAAGAGGAATTAGCAGG  
TCTTAAAAACACTGCTGAAAAGTATCGCCAACATAAACAGCAGTGGGAGATGAAAACCTGAAGAGGCAGATTTATT  
ACAAACCAAGCTCCAGCAAAGCTCATATCACAAGCAACAAGAAGAATTAGATGCCCTTAAAAAACCATTTAGGA  
AAGTGAGGAGACTTTGAAAAACACTAAAGAAATCCAAAGAAAAGCAGAAGAAAAATATGAAGTATTGGAAAAATA  
AATGAAAAATGCAGAAGCTGAAAGAGAGCGAGAAGTGAAGATGCTCAGAAAAAACTGGATTGTGCCAAAAACAA  
GGCAGATGCATCTAGCAAGAAGATGAAAGAAAAACAACAGGAAGTTGAAGCTATCACTCTGGAACCTGGAAGAGCT  
CAAGAGAGAGCATACATCTTACAAACAACAGCTTGAAGCTGTAAATGAAGCTATCAAATCCTATGAAAGTCAGAT  
TGAAGTAATGGCAGCTGAGGTGGCTAAAAATAAGGAGTCAGTAAATAAAGCTCAAGAAGAGGTGACCAAGCAAAA  
AGAGGTGATAACAGCCCAAGACACTGTAATTAAGCTAAATATGCAGAAAGTGGCAAAACACAAGGAGCAAAAACAT  
GATTCTCAGCCTTAAAAATTAAGGAATTAGACCACCACATCAGCAAAACATAAACGGGAGGCTGAAGATGGTGCTGC  
AAAGGTATCCAAAATGTTGAAAGATTATGACTGGATTAATGCAGAGAGACACCTCTTTGGCCAACCCAATAGTGC  
CTATGATTTTCAAACTAACAACCTTAAAGAAGCTGGTCAGAGACTTCAGAAGTTGCAAGAAATGAAGGAGAACT  
AGGAAGAAATGTCAATATGAGAGCTATGAATGTATTGACAGAAGCTGAAGAGCGATGCAATGACTTGATGAAGAA  
GAAGAGAATTGTAGAAAAATGACAAATCCAAAATTCTTACAACATATAGAAGACCTTGACCAGAAGAAAAACCAAGC  
CCTAAATATTGCATGGCAAAAGGTGAACAAGGACTTTGGGTCTATTTTTTCTACTCTTTTGCCTGGTGCTAATGC  
TATGCTTGCAACCACAGAGGGTCAAACCTGTTTTGGATGGTCTGGAGTTCAAGGTTGCCTTAGGAAATACCTGGAA  
AGAAAACCTAACTGAACTTAGTGGTGGTCAGAGGTCTTTAGTGGCCTTGTCATTAATACTGTCCATGCTTCTCTT  
CAAACCTGCTCCAATTTATATCCTTGATGAGGTAGATGCAGCCTTGGATCTTCTCATACCCAAAACATTGGACA

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**FIGURE 374B**

GATGCTGCGTACTCATTTCACACATTCTCAGTTCATTGTGGTGTCCTAAAAGAAGGTATGTTCAACAATGCAAA  
CGTTCTTTTCAAAACCAAGTTTGTGGATGGTGTCTTCTACAGTAGCCAGATTACTCAATGTCAAAATGGAAAGAT  
TTCAAAGGAAGCAAAATCCAAGGCAAAACCACCCAAAGGAGCACATGTGGAAGTTTAACTACAAAGTTATTTCT  
TCATCTTGACCTGTTTTTTTAAATGTAACTTTTAAGGACTTGAGATAACTAATTTGTTTATATACAAAAATTAA  
TGTTACTGTGTTACTTAACCCATGTTTTCTCTTTATATAATCACTTATCGCTTACAAATGAGCATATATTCCTCA  
TCTCTTAACTAGTCTAATTATGGTCCAATTATTGTGGTTGTGATTTTATGCATATCCATCAAAATGTTTTTTTC  
TTATGCGGGTCTTTTATATATTAGGGATCCTGAGATACCCGATTCTATATGTAAAAGCTAATATACAAAAAGCA  
GATTAAATTACATGATAAATGTAGCTGAAAAAAAAAAAAA

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**FIGURE 375**

MHIKSIILEGFKSYAQRTEVNGFDPLFNAITGLNGSGKSNILDSICFLLGISNLSQVRASNLQDLVYKNGQAGIT  
KASVSITFDNSDKKQSPLGFEVHDEITVTRQVVIGGRNKYLINGVNANNTRVQDLFCVGLNVNPHFLIMQGRI  
TKVLNMKPPEILSMIEEAAGTRMYEYKKIAAQKTIEKKEAKLKEIKTILEEEITPTIQKLKEERSŠYLEYQKVMR  
EIEHLSRLYIAYQFLLAEDTKVRSAAELKEMQDKVIKLQEELSENDKKIKALNHEIEELEKRKDKETGVILRSLE  
DALAEAQRVNTKSQSADFLLKKKNLACEESKRKELEKNMVEDSKTLAAKEKEVKKITDGLHALQEASNKDAEALAA  
AQQHFNAVSAGLSSNEDGAEATLAGQMMACKNDISKAQTEAKQAQMKLKHAQQELKNKQAEVKKMDSGYRKDQEA  
LEAVKRLKEKLEAEMKKLNYEENKEESLLEKRRQLSRDIGRLKETYEALLARFPNLRFAVKDPEKNWNRNCVKGL  
VASLISVKDTSATTALELVAGERLYNVVVDTEVTGKKLLERGELKRRYTIIPLNKISARCIAPETLRVAQNLVGP  
DNVHVALSLVEYKPELQKAMEFVFGTTFVCDNMDNAKKVAFDKRIMTRTVTLGGDVFDPHGTLSSGGARSQAASIL  
TKFQELKDVQDELRIKENELRALEEEELAGLKNTAEKYRQLKQQWEMKTEEADLLQTKLQQSSYHKQQEELDALKK  
TIEESEETLKNTKEIQRKAEKYEVLNKMKNAAEAERERELKDAQKKLDCAKTKADASSKKMKEKQQEVEAITLE  
LEELKREHTSYKQQLEAVNEAIKSYESQIEVMAAEVAKNKESVNKAQEEVTKQKEVITAQDTVIKLNMQKWQNT  
SKTMILSLKIKELDHHISKHKREAEDGAAKVSMLKDYDWINAERHLFGQPN SAYDFKTNNPKEAGQRLQKLQEM  
KEKLGRNVNMRAMNVLTEAEERCNDLMKKKRIVENDKSKILTIEDLDQKKNQALNIAWQKVNKDFGSIFSTLLP  
GANAMLAPPEGQTVLDGLEFKVALGNTWKENLTESGGQORSLVALSLILSMLLFKPAPIYILDEVDAALDLSHTQ  
NIGQMLRTHFTHSQFIVVSLKEGMFNNANVLFKTKFVDGVSTVARFTQCQNGKISKEAKSKAKPPKGAHVEV

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**FIGURE 376**

ACTAAGACCGCAAGGCATTCAATTCCTCCTACGGTGGATGCGGACGCCGGGAGGAGAGAGCCCCAGAGAGAGGA  
GCTGGGAGCGGAGGCGCAGGCAATGCTCAGCCCTGGATGTAGCTGAGAGGCTGGGAGAAGAGACGACCGCTGGAG  
ACCGAGCGGCGTGGGGAAAGACCTAGGGGGGTGGGTGGGGGAAGCAGACAGGAGAACACTCGAAATCAAGCGCTTT  
ACAGATTATTTTATTTTGTATAGAGAACACGTAGCGACTCCGAAGATCAGCCCCAATGAACATGTCAGTGTTGAC  
TTTACAAGAATATGAATTCGAAAAGCAGTTCAACGAGAATGAAGCCATCCAATGGATGCAGGAAAACCTGGAAGAA  
ATCTTTCTGTTTTCTGCTCTGTATGCTGCCTTTATATTCGGTGGTTCGGCACCTAATGAATAAACGAGCAAAGTT  
TGAAGTGAAGAACCCATTAGTGCTCTGGTCTCTGACCCTTGCACTCTTCAGTATATTCGGTGTCTCTTCGAAGTGG  
TGCTTATATGGTGACATTTTGATGACCAAAGGCCTGAAGCAGTCAGTTTGTGACCAGGGTTTTTACAATGGACC  
TGTCAGCAAATTCGCGGCTTATGCATTTGTGCTAAGCAAAGCACCCGAAGTGGAGATACAATATTCATTATTCT  
GAGGAAGCAGAAGCTGATCTTCCTGCCTGGTATCACCACATCACTGTGCTCCTGTACTCTTGGTACTCCTACAA  
AGACATGGTTGCCGGGGGAGGTTGGTTTCATGACTATGAACTATGGCGTGCACGCCGTGATGTACTCTTACTATGC  
CTTGCGGGCGGCAGGTTTCCGAGTCTCCCGGAAGTTTGGCATGTTTCATCACCTTGTCCTCAGATCACTCAGATGCT  
GATGGGCTGTGTGGTTAACTACCTGGTCTTCTGCTGGATGCAGCATGACCAGTGTCACTCTCACTTTTCAAGACAT  
CTTCTGGTCTCACTCATGTACCTCAGCTACCTTGCTCTTCTGCCATTTCTTCTTTGAGGCCTACATCGGCAA  
AATGAGGAAAAACAAGCAAGCTGAATAGTGTGGAACTGAGGAGGAAGCCATAGCTCAGGGTCATCAAGAAAAAT  
AATAGACAAAAAGAAAATGGCACAAGGAATCACACGTGGTGCAGCTAAAACAAAACAAAACATGAGCAAACACAAA  
ACCCAAGGCAGCTTAGGGATAATTAGGTTGATTTAACCAGTAAGTTTATGATCCTTTTAGGGTGAGGACTCACT  
GAGTGCACCTCCATCTCCAAGCACTGCTGCTGGAAGACCCCATTCCTCTTTATCTATCAACTCTAGGACAAGGG  
AGAACAAAAGCAAGCCAGAAGCAGAGGAGACTAATCAAAGGCAAACAAAGGCTATTAACACATAGGAAAATATGT  
ATTTACTAAGTGTACATTTCTCTAAGATGAAAGATTTTTACTCTAGAACTGTGCGAGCACACACACAATC  
CTTTCTAACTTTATGGACACTAACTGGAGCCAATAGAAAAGACAAAATGAAAGAGACACAGGGTGTATATCTA  
GAACGATAATGCTTTTGAGAACTAAAGCCTTTTTAAGAAATGCCAGCTGCTGTAGACCCCATGAGAAAAGATG  
TCTTAATCATCCTTATGAAAACAGATGTAAACAATATATTTCAACTAACTTCATCTTCACTGCATAGCCTCAGG  
CTAGTGAGTTTGCCAAAACCAAGGGGGTGAATACTTCCCCAAGATTCTTCTGGGAGGATGGAACAGTGCAGC  
CCAGGTCCCATGGGGCAGCTCCATCCAGAGCATTCTGATAGTTGAAGTGAATTTCTACTCTTAAGTGAGAT  
ATGAAGTATTATCCTTTTGTTAGTTGCCCGGGCTTTTGAACAGAAGAGTAAATACAGAATTGAAAAAGATAAA  
CACTCAACCAACAATGTGAAAACGGGTCTGTAGTATTTGTAAAAAGGCCCGGCCAGGACCACTGTGAGCTGG  
AAAAGGGAGAAAGGCAGTGGGAAAAGAGGTGAGCCGAAGATCAATTCGACAGACAGACGGTGTGTATGCCCTCC  
CTGTTTGACTTCACACACACTCATACTTTCCAAATGAAACCCACAGTATAGCGCATATTTTCGATATTTTGT  
GAATTCCAAAAGGAAATCACAGGGCTGTTGAAATATTGGGGGAACACTGTGTTTCTGCATCATCTGCATTGCT  
CCCCAAGCAATGTAGAGGTGTTTAAAGGGCCCTCTGCTGGCTGAGTGGCAATACTACAACAACTTCAAGGCAAG  
TTTGGCTGAAAACAGTTGACAACAAAGGGCCCCCATACACTTATCCCTCAAATTTTAAAGTGATATGAAATACTTG  
TCATGTCTTTGGCCAAATCAGAAGATATTCATCCTGCTTCAAGTCAGCTTCAGAAATGTTTTAAAGGGACTTTA  
GCTCTGGAACCTCAAATCAATTTATTAAGAGCCATATCTTTAAAAAAAAGCTGGATAATATTATCTGTAATA  
TTTCAGTCCTTTACAAGCCAAATACATGTGTCAATGTTTCTAGTATTTCAAAGAAGCAATTATGTAAAGTTGTTT  
AATGTGACATAATAGTATTATAATTGGTTAAGTAGCTTAATGATTAGGCAAAGTATGAAAAGATTAGGGGCTT  
CCACACTGCATAGATCACACGCACATAGCCACGCATACACACACAGACACACAGATGTGGGGTACACTGAATTC  
AAAGCCCAAATGAATAGAAACACATTTTCTGGCTAGCAGAAAAAACAAAACAACTGTTGTTTCTCTTTCTTG  
CTTTGAGAGTGACAGTAAAGGGATTTTTTCGAATTATTTTTATATTATTTAGCTTTAATTGTGCTGTCGTTT  
ATGAAACAGAGCTGCTCTGCTTTTCTGTCAGAGATGGCAAGGGCTTTTTCAGCATCTCGTTTTATGTGTGGAATTT  
AAAAAGAATAAAGTTTTATTCCATTCTGAAAAA

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**FIGURE 377**

MNMSVLTLQEYEFKQFNENEAIQWMQENWKKSFLFSALYAAFIFGGRHLMNKRAKFE LRKPLVLWSLTLAVFSI  
FGALRTGAYMVYILMTKGLKQSVCDQGFYNGPVSKFWAYAFVL SKAPELGDTIFIILRKQKLIFLHWYHHITVLL  
YSWYSYKDMVAGGGWFMTMNYGVHAVMYSYYALRAAGFRVSRKFAMF ITLSQITQMLMGCVVNYLVFCWMQHDQC  
HSHFQNIFWSSLMYLSYLVLFCHFFFEAYIGKMRKTTKAE



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**FIGURE 378**

CGGGCACTCACCGTGTGTAGTTGGCATCTCCGCGCGTCCGGACACCCGATCCCAGCATCCCTGCCTGCAGGACTG  
TTCGTGTTTCAGCTCGCGTCCCTGCAGCTGTCCGAGGTGCTCCAGTTGGAGGCTGAGGTTCCCGGGCTCTGTGCTG  
AGTGGGCGGGCGGCACCGGCGGAGATGCCTGGGAAGAAGGCGCGCAAGAACGCTCAACCGAGCCCCGCGGGGCTC  
CAGCAGAGCTGGAAGTCGAGTGTGCTACTCAACTCAGGAGATTTGGAGACAACTGAACCTCCGGCAGAACTTC  
TGAATCTGATATCCAACTCTTCTGCTCAGGAACCTTGACTGCATCAAAAACTTGCATGAGGGGACTCCTTCAAAA  
GAGTTTTCTCAGGAGGTGCACGTTTCATCAATTTGAAGAAAGACTGCATTGTAATTGAGAGGAATGTGAAGGTGC  
ATTCATGGGTGCCCTTGGAACGGAAGATGGAATACATCAAAGTGAATTTCTGTTCAAGTTTTCCAGATTATCA  
TTCTTTGGGATGAGAGAACATTATAAAACCACTTTGTTTTATTTTAAAGCAAGAATGGAAGACCCTTGAAAATAAA  
GAAGTAATTATTGACACATTTCTTTTTTACTTAGAGAATCGTTCTAGTGTTTTTGCCGAAGATTACCGCTGGCCT  
ACTGTGAAGGTAGATGACCTGTGATTAGACTGGGCGGCTGGGGAGAAAACAGTTCAGTGCATTGTTGTTGTTGCTG  
TTTTTGGTGTTTTGCTTTTCAGTGCCAACTCAGCACATTGTATATGATTCGGTTTATACATATTACCTTGTTATA  
ATGAAAAAACTCATTCTGAGAACACTGAAATGTTATACTCAGTGTTGATTTCTTCGGTCACTACACAACGTAAAA  
TCATTTGTTTCTTTTGACTCAAATTTGTATTGCTTCTGTTTCAGATGATCTTTCATTCAATGTGTTCTGTTGGGCG  
TTACTAGAACTATGGAAACTGGAAAATAACTTTGAAAAAATTGGATAAAGTATAGGAGGGTTACTTGGGGCCA  
GTAAATCAGTAGACTGAACATTCAATATAATAAAGAACATGGGGATTTTGTATAACCAGGGATAATAAAAAGAA  
AAAGAAGTTAATTTTAAATTGATGTTTTTGAACCTTAGTAGAACAAATATTCAGAAGTAAGTTGATAAGATATGA  
ATGTTTCTAAAGAGTTTCTAAAGGTTGAAATGCTCCTTGTCACATTAGTGTGCATCCTACAAAAGTGATCTCT  
TAATGTAAATTAAGAATATTTTCATAATTGGAATATACTTTTCTTAAAAAAAAGGAACAGTTAGTTCTCATCTAG  
AATGAAAGTTCCATATATGCATTGGTGAATATATATGTATACACATACTTACATACTTATATGGGTATCTGTATA  
GATAATTTGTATTAGAGTATTATATAGCTTCTTAGTAGGGTCTCAAGTAAGTTCATTTTTTTTTATCTGGGCTATA  
TACAGTCTCAAATAAATAATGTCTTGATTTTATTTTCAGCAGGAATAATTTTATTTATTTTGCCTATTTATAATT  
AAAGTATTTTTCTTTAGTTTGAAATGTGTATTAAAGTTACATTTTGTAGTTACAAGAGTCTTATAACTACTTGAA  
TTTTTAGTTAAAATGTCTTAATGTAGGTGTAGTCACTTTAGATGGAAAATTACCTCACATCTGTTTTCTTCAGT  
ATTACTTAAGATTGTTTATTTAGTGGTAGAGAGATTTTTTTTTTTCAGCCTAGAGGCAGCTATTTTACCATCTGGT  
ATTTATGGTCTAATTTGTATTTAAACATATGCACACATATAAAAAGTTGATACTGTGGCAGTAACTATTAAAAGT  
TTTCACTGTT

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**FIGURE 379**

MPGKKARKNAQPSAPAPAELEVECATQLRRFGDKLNFRQKLLNLISKLFCSGT

**FIGURE 380**

CGGGCACTCACCGTGTGTAGTTGGCATCTCCGCGCGTCCGGACACCCGATCCCAGCATCCCCTGCCTGCAGGACTG  
TTCGTGTTTCAGCTCGCGTCTCTGCAGCTGTCCGAGGTGCTCCAGTTGGAGGCTGAGGTTCCCGGGCTCTGTGCTG  
AGTGGGCGGCGGCACCGGCGGAGATGCCTGGGAAGAAGGCGCGCAAGAACGCTCAACCGAGCCCCGCGGGGCTC  
CAGCAGAGCTGGAAGTCGAGTGTGCTACTCAACTCAGGAGATTTGGAGACAACTGAACTTCCGGCAGAACTTC  
TGAATCTGATATCCAACTCTTCTGCTCAGGAACCTTGACTGCATCAAAAACTTGCATGAGGGGACTCCTTCAAAA  
GAGTTTTCTCAGGAGGTGCACGTTTCATCAATTTGAAGAAAGACTGCATTGTAATTGAGAGGAATGTGAAGGTGC  
ATTTCATGGGTGCCCTTGGAAACGGAAGATGGAATACATCAAAGTGAATTTCTGTTCAAGTTTTCCAGATTATCA  
TTCTTTGGGATGAGAGAACATTATAAAACCACTTTGTTTTATTTTAAAGCAAGAATGGAAGACCCTTGAAAATAAA  
GAAGTAATTATTGACACATTTCTTTTTTACTTAGAGAATCGTTCTAGTGTTTTTGCCGAAGATTACCGCTGGCCT  
ACTGTGAAGGTAGATGACCTGTGATTAGACTGGGCGGCTGGGGAGAAACAGTTCAGTGCATTGTTGTTGTTGCTG  
TTTTTGGTGTGTTTTGCTTTTCAGTGCCAACTCAGCACATTGTATATGATTCGGTTTATACATATTACCTTGTTATA  
ATGAAAAAATCATTCTGAGAACTGAAATGTTATACTCAGTGTGATTTCTTCGGTCACTACACAACGTAAAA  
TCATTTGTTTTCTTTTGACTCAAATTGTATTGCTTCTGTTTCAGATGATCTTTCATTCAATGTGTTCTGTTGGGCG  
TTACTAGAACTATGGAACCTGGAATAAATTTGAAAAAATTGGATAAAGTATAGGAGGGTACTTGGGGCCA  
GTAAATCAGTAGACTGAACATTCAATATAATAAAGAACATGGGGATTTTGTATAACCAGGGATAATAAAAAGAA  
AAAGAAGTTAATTTTTAATTGATGTTTTTGAACCTTAGTAGAACAAATATTCAGAAGTAACCTTGATAAGATATGA  
ATGTTTCTAAAGAGTTTCTAAAGGTTGAAATGCTCCTTGTCACATTAGTGTGCATCCTACAAAAAGTGATCTCT  
TAATGTAAATTAAGAATATTTTCATAATTGGAATATACTTTTCTTAAAAAAAAGGAACAGTTAGTTCTCATCTAG  
AATGAAAGTTCCATATATGCATTGGTGAATATATATGTATACACATACTTACATACTTATATGGGTATCTGTATA  
GATAATTTGTATTAGAGTATTATATAGCTTCTTAGTAGGGTCTCAAGTAAGTTCATTTTTTTTTATCTGGGCTATA  
TACAGTCTCAAATAAATAATGTCTTGATTTTATTTTCAGCAGGAATAATTTTATTTATTTTGCCTATTTATAATT  
AAAGTATTTTTCTTTAGTTTGAAATGTGTATTAAAGTTACATTTTTTGAGTTACAAGAGTCTTATAACTACTTGAA  
TTTTTAGTTAAATGTCTTAATGTAGGTTGTAGTCACTTTAGATGGAAAAATTACCTCACATCTGTTTTCTTCAGT  
ATTACTTAAGATTGTTTATTTAGTGGTAGAGAGATTTTTTTTTTTCAGCCTAGAGGCAGCTATTTTACCATCTGGT  
ATTTATGGTCTAATTTGTATTTAAACATATGCACACATATAAAAAGTTGATACTGTGGCAGTAACTATTAAAAGT  
TTTCACTGTT

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**FIGURE 381**

MPGKKARKNAQPSPARAPAELEVECATQLRRFGDKLNFRQKLLNLISKLFCSGT

## FIGURE 382

AGCCTGCCCTTGGGGCTGCCACGCCCCCTTCAGATCCTTTGCTCCGGAGAGAGACCTGTCCGAGCAGAGGCCTG  
GACTACATCTCCCGGCGTGCTGGCAGTGTGGTGGCCTCTGTGCGCCGTCTGCACTCGTTGCAGGCGACG**ATGCA**  
GAGGGCTGTAAGTGTGGTGGCCCGTCTGGGCTTTTCGCCTGCAGGCATTCCCCCGGCCCTTGTGTCGTCCACTTAG  
TTGCGCACAGGAGGTGCTCCGCAGGACACCGCTCTATGACTTCCACCTGGCCACGGCGGGAAAATGGTGGCGTT  
TGCGGGTTGGAGTCTGCCAGTGCAGTACCGGGACAGTCACACTGACTCGCACCTGCACACAGCCAGCACTGCTC  
GCTCTTTGACGTGTCTCATATGCTGCAGACCAAGATACTTGGTAGTGACAGGTGTAAGCTGATGGAGAGTCTAGT  
GGTTGGAGACATTGCAGAGCTAAGACCAAACAGGGGACACTGTCGCTGTTTACCAACGAGGCTGGAGGCATCTT  
AGATGACTTGATTGTAACCAATACTTCTGAGGGCCACCTGTATGTGGTGTCCAACGCTGGCTGCTGGGAGAAAGA  
TTTGGCCCTCATGCAGGACAAGGTGAGGGAGCTTCAGAACAGGGGAGAGATGTGGGCCTGGAGGTGTTGGATAA  
TGCCCTGCTAGCTCTGCAAGGCCCACTGCAGCCCAGGTACTACAGGCCGCGGTGGCAGATGACCTGAGGAACT  
GCCCTTCATGACCAGTGCTGTGATGGAGGTGTTTGGCGTGTCTGGCTGCCGCGTGACCCGCTGTGGCTACACAGG  
AGAGGATGGTGTGGAGATCTCGGTGCCGGTAGCGGGGGCAGTTACCTGGCAACAGCTATTCTGAAAAACCCAGA  
GGTGAAGCTGGCAGGGCTGGCAGCCAGGGACAGCCTGCGCCTGGAGGCAGGCCTCTGCCTGTATGGGAATGACAT  
TGATGAACACACTACACCTGTGGAGGGCAGCCTCAGTTGGACACTGGGGAAGCGCCGCCGAGCTGCTATGGACTT  
CCCTGGAGCCAAGGTCATTGTTCCCCAGCTGAAGGGCAGGGTGCAGCGAGGCGTGTGGGGTTGATGTGTGAGGG  
GGCCCCCATGCGGGCACACAGTCCCATCCTGAACATGGAGGGTACCAAGATTGGTACTGTGACTAGTGGCTGCCC  
CTCCCCCTCTCTGAAGAAGAATGTGGCGATGGGTTATGTGCCCTGCGAGTACAGTCGTCCAGGGACAATGCTGCT  
GGTAGAGGTGCGGCGGAAGCAGCAGATGGCTGTAGTCAGCAAGATGCCCTTTGTGCCCACAACTACTATAACCT  
CAAG**TGAA**AGCTGGCTCAGGGTGGGGCTGTCCCTTCAGGAGTTTTGCCCTACAAGGGGTTAGTCAAGAAGCTGA  
GGCAGAACTCACTGGGGGTGGGCAGTTAAGGTGGAGGCTGATTCTAATTGTCTGGTTGAGGGGCCACACCACCTA  
TTCCCCCACCTAACTCATGCCATTCCAGCTTCCTTCAGGACCCTGCTTCTGAGTGACGGACCAGCTCACACAAT  
GTCTTGTTCAGTCCATGATCCCACTGACCTACTCTTGCTGCTGGAGGGTAATGAGAAGCTTTGGTTCTGCCAT  
CTCTCCCACTCTGCCAGGTGCTGGCTGTGGAGCAAAGGCTCACCTTTGTGGAGAGGATAAAACCTKCCCAACCTA  
CCTCACCATGGTTTTTTCACATTGCAAAGGGTAATAACATGGGCAGTGCGGACTTAGGCTACCCCTCCAGTTTGC  
TTTCCGTAAATGCAAATTGTCCTTACTGCAAGTCAGGAATGATTGCTGACTCACAGTAGGGCTGCTATGCCTGTG  
TGTAACCTTGGGGATGGCTGAGGGAACATAGACTCACTCTTCCACATTCCCAAGTTGGTCTAGTGTGCTGCCAG  
TAGCAAACCATGGCAGACTACACCTATTCTGAGTTCCAGGGCTGCTGTAGGGCAGGGTGGGCTTCTCCCCAGA  
CTTGCTTACCCTGGGCTGATCTTTGCCCTGGTATGCATTAATGGACTCCACTGAATCCTGAAAAAAAAATTAA°  
ACTTCCTTCTTACTTGCCA

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**FIGURE 383**

MQRAVSVVARLGFR LQAFFPALCRPLSCAQEVLRRTPLYDFHLAHGGKMVAFAGWSLPVQYRDSHTD SHLHTRQH  
CSLFDVSHMLQTKILGSDRCKLMESLVVGDIAELRPNQGTLSLFTNEAGGILDDLIVTNTSEGHLYVVS NAGCWE  
KDLALMQDKVRELQNQGRDVGLEVL DNALLALQGPTAAQVLQAGVADDLRKLPFMTSAVMEVFGVSGCRVTRCGY  
TGEDGVEISVPVAGAVHLATAILKNPEVKLAGLAARDSLRLEAGLCLYGNDIDEHTTPVEGSLSWTLGKRRRAAM  
DFPGAKVIVPQLKGRVQRRRVGLMCEGAPMRAHSPILNMEGTKIGTVTSGCPSPSLKKNVAMGYVPCEYSRPGTM  
LLVEVRRKQQMAVVSKMPFVPTNYITLK

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**FIGURE 384**

AGCGCAGCACTCCCCGCTCGTTGGCCCGGGTATCCAGCGCGGACCCACGCGATACGCTGACGCCCCGACGCCGA  
TCCGGCCGAGCCAAGTAAGGGGGACGGCCCGAGACGGAGAAGGGAGAGAGTGGGAGTTTCCCAGCCCGCAGAACT  
TTCGAAGTTGAGAAGAGAACCCCTGGAACGTGCGCTCAGCACTGGGATTTTCTGGACTCAACGATGACTCTGAAT  
AATGTCACCATGCGCCAGGGCACTGTGGGCATGCAGCCACAGCAGCAGCGCTGGAGCATCCAGCTGATGGCAGG  
CATCTGATGGTCCAGAAAGAGCCCCACCAGTACAGCCACCGCAACCGCCATTCTGCTACCCCTGAGGACCACTGC  
CGCCGAAGCTGGTCCTCTGACTCCACAGACTCAGTCATCTCCTCTGAGTCAGGGAACACCTACTACCGAGTGGTG  
CTCATAGGGGAGCAGGGGGTGGGCAAGTCCACTCTGGCCAACATCTTTGCAGGTGTGCATGACAGCATGGACAGC  
GACTGCGAGGTGCTGGGAGAAGATACATATGAACGAACCCCTGATGGTTGATGGGGAAAGTGCAACGATTATACTC  
CTGGATATGTGGGAAAATAAGGGGGGAAAATGAATGGCTCCATGACCACTGCATGCAGGTCGGGGACGCATACCTG  
ATTGTCTACTCAATCACAGACCGAGCGAGCTTCGAGAAGGCATCTGAGCTGCGAATCCAGCTCCGCAGGGCCCCG  
CAGACAGAGGACATTCCCATAATTTTGGTTGGCAACAAAAGTGACTTAGTGCGGTGCCGAGAAGTGTCTGTATCA  
GAAGGGAGAGCCTGTGCAGTGGTGTTTACTGCAAGTTTCATCGAGACCTCTGCAGCTGTCCAGCACAAACGTGAAG  
GAGCTGTTTGAGGGCATTGTGCGACAGGTGCGCCTTCGGCGGGACAGCAAGGAGAAGAATGAACGGCGGCTGGCC  
TACCAGAAAAGGAAGGAGAGCATGCCCAGGAAAGCCAGGCGCTTCTGGGGCAAGATCGTGGCCAAAAACAACAAG  
AATATGGCCTTCAAGCTCAAGTCCAAATCCTGCCATGACCTCTCTGTACTCTAGGAACCCAGGGTCACCCAGATG  
TCCCTTTGATGGCCCTTGTTGAAGGCCATTGGGACCAATAATCTATATTAGATTGAATACTTAAGTTAGATGTGG  
TTTCCCCCATTGTAGCAGGGAGCTAGCGTATTAGCCTTGTGGGCAACATGATGCATGGGAAATGAAAGATTTTGT  
TAAAAAGTCAGTATTTATTTCCAGGAAAAGCCTGACCTTGCTATTTGAACACCCAAGACTCTTTAGAGGATGTGT  
TTGGTGTTACATGTGTTTCTTCTATTTTGGATAGTAGGGAAGTAAAGCTTACAAAGAATGCCTAGAACAAGAAC  
TTTTCATCATTAATAAATTTTCCCAGTGTTCTGATATGTGACTTTGAGGCCAATGAGTCATAAACAATATAAGA  
AAGCTGTCAATGAGTTTCTTCAAAGGAGGGGAAAACCTTTCTACGAATCTAAGATCCATGGAGCTAGAATTGTAGAA  
CTAGGCTCATCAGAATCGTGACTATTATTGCTCCATCAAACCTGTGAAAAGAAATGATGTGGACCTTGCTGGAAAC  
AAAGGCTTAGCAAAACAATTTTGTTCATGCCCACCGAGACATATAGAATTGGGAACGTGATACATGTGTCCCTTA  
TAGGCTCAAAAATTATATCTTACAATTTCTTATTTAGGGGAAATTTATTTGAATCAGATTCTATTTAGTCAAACC  
ACCTTTTATGTTTTATTATTTTGAATTCATGGAGCCATCATAAAAAATTTTTTAAATCAGAATTATTGATACC  
CTGTAGTGCAAAATGTCAATTTTAAATGTATAATCAGAAGTCTGAATTTTCATAAAACATATAGCATAAAAAACCT  
CCAGTACTTTGGTTGACCTTGATGTGACAGCTCTGCTCTATTTATTATTATTTTGCAAAATAACCATTTTAAAC  
ATTTGATAAAGCATATTTATGAACATATTTCTTAATAAGAAAAATATCCATTTTATTACCATTTTCTATCTTTTT  
CAAAATATGCAAGTTTTTACCTATATGTCTTATAATAAAGAAATAAAATATTTGA

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**FIGURE 385**

MTLNNVTMRQGTVGMQPQQQRWSIPADGRHLMVQKEPHQYSHRNRHSATPEDHCRRSWSSDSTDVISSESGNTY  
YRVVLIGEQQGVGKSTLANIFAGVHDSMDSCEVLGEDTYERTLMVDGESATIILLDMWENKGENEWLHDHCMQVG  
DAYLIVYSITDRASFEEKASELRIQLRRARQTEDIPIILVGNKSDLVRCREVS SVSEGRACAVVFDCKFIETSAAVQ  
HNVKELFEGIVRQVRLRRDSKEKNERRLAYQKRKESMPRKARRFWGKIVAKNNKNMAFKLKSCHDLSVL



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**FIGURE 386A**

ACGTTGCCCGGGATGCGGACAGGTTCCGCCGCTCCAGCGCCCCATCCTGAGCCGATTATCTGCAATTATGAAAT  
GAAGTAACTCAAGATGAGCAAGTTAAAAGTGATACCAGAAAAAGCCTTACCAATAATTCTAGGATCGTAGGACT  
CCTGGCTCAACTGGAGAAGATCAATGCTGAGCCTTCAGAATCAGACACTGCCGATATGTTACATCAAAAATTCT  
TCATCTGGCTCAGAGTCAAGAAAAACAAGGAGAGAAATGACAGCCAAAGTTCTACAGGAATGGAAATTCTGCT  
GTCAACATTAGAGAACACAAAAGATCTTCAAACACTACTTAATATCTTAAGCATTCTTGTTGAGCTGGTGTGACG  
TGGTGGAGGTCGAAGAGTGAGTTTCTTAGTCACCAAAGGTGGTTCACAAATATTGTTGCAGTTACTTATGAATGC  
CAGCAAAGAATCTCCCCACATGAGGACTTAATGGTACAGATTCATTCTATTCTTGCAAAGATTGGACCAAAGA  
TAAAAAATTTGGAGTAAAGGCTAGAATTAATGGGGCTCTGAATATAACCCTGAATTTGGTCAAGCAGAATTTGCA  
GAATCATCGCTTGGTTCTACCTTGCCTTCAGCTTTTACGAGTATATTCTGCCAACTCTGTGAATTCAGTATCCTT  
AGGGAAAAATGGAGTTGTGGAAGTATGTTTAAATCATTGGACCATTTAGTAAGAAGAATTCAGTCTTATAAA  
GGTTGCTTTAGACACTCTTGCTGCATTGCTAAAAATCAAAAACAAATGCCAGGAGAGCTGTAGACAGAGGATATGT  
CCAAGTGCTTTTAAACAATTTATGTAGATTGGCACCGCCATGATAACCGGCATAGAAACATGCTCATTCCGAAAGG  
AATTTTACGGAGTTTAAAAAGTGTTACAAACATCAAGTTGGGAAGAAAAGCATTATTGATGCCAATGGGATGAA  
AATTCTGTATAATACTTCGCAATTGCCTGTTATTCTGTGACTGGTCTGTGGCTCAGCTCTACAGCTTACCTCC  
TGAAGTGGATGACGTAGTAGATGAAAGTGATGACAACGATGATATTGATGTAGAAGCTGAAAACGAAACTGAGAA  
TGAAGATGACCTAGATCAAAATTTTAAAGATGATGATATTGAAACAGATATTAACAAACTAAAACCCCCAGCAAGA  
ACCGGGACGAACAATAGAAGATCTAAAAATGTATGAACACCTTTTCCCTGAGCTTGTTGATGATTTTCAGGACTA  
TGATTTAATCTCAAAGAACCAAAGCCTTTTGATTTGAGGGAAGTACGTGGTCTATTGTTGTTTCCCTACGGC  
AGGCGAGGGAACATCTGGGAATTCTGGCAATTTAAGAAAAGTTGTAATGAAGGAGAACATATCTTCTAAAGGAGA  
TGAAGGTGAAAAGAAGTCTACCTTTATGGATCTAGCAAAAGAAGATATTAAAGATAATGATAGAACATTACAACA  
GCAGCCAGGTGATCAAAATAGAACTATTTTCATCAGTCCATGGTTTAAACAATGATATTGTAAAGGCCTTGGACCG  
AATTACATTGCAGAATATTCTTCTCAAACAGCCCCAGGTTTTACTGCAGAAATGAAGAAGGACTGCAGTCTTCC  
TCTTACTGTCTTACCTGTGCTAAAGCATGTCCACACATGGCTACTTGTGGAAATGTTCTGTTTGAGGGAAGAAC  
AGTTCAGCTAGGGAAGCTTTGCTGCACTGGAGTTGGAAGTGAAGATGATGAAGATACTGAGTCAAATTCATCGGT  
AGAACAAGCATCGGTTGAAGTACCTGATGGACCAACACTCCATGACCCAGACCTCTATATTGAGATTGTGAAAAA  
TACGAAGTCTGTCCCAGAATATTAGAGGTGGCTTATCCCGATTATTTTGGTCAATTCCGCCTCCATTCAAAGA  
GCCTATTTTAGAAAGGCCTTATGGTGTACAAAGGACAAAAATTGCTCAAGATATTGAAAGGCTAATACATCAGAG  
TGATATCATAGATCGTGTGGTATATGACTTGGATAACCCAAATTACACCATTCCAGAAGAGGGAGATATTTTGAA  
ATTTAACTCCAAATTTGAGTCTGGGAATCTGCGCAAAGTAATTCAAATTAGAAAAAATGAATATGATCTTATTCT  
GAACTCAGACATAAACAGCAATCATTATCATCAGTGGTTTTACTTTGAAGTCAGTGGAAATGCGACCAGGTGTTGC  
TTACAGGTTTAAACATCATTAACTGTGAAAAGTCCAACAGTCAGTTTAAATTATGGTATGCAACCACTCATGTATTC  
GGTTCAGGAAGCATTAAATGCCAGACCATGGTGGATTCTGATGGGGACTGACATTTGTTACTATAAAAAATCATT  
CTCAAGAAGTTCAGTTGCTGCAGGTGGGCAAAAGGGAATCCTACTATACAATTACATTTACTGTCAATTTTCC  
ACATAAAGATGATGTTTGCTACTTTGCTTATCACTATCCATATACGTATTCAACTTTACAGATGCATCTTCAAAA  
ATTGGAATCAGCACACAATCCTCAGCAAATCTATTTTCGGAAAGATGTGTTATGTGAAACCTGTCTGGAAACAG  
CTGCCCCCTTGGTGACTATAACAGCAATGCCAGAGTCTAATTATTATGAACATATCTGCCATTTAGAAATCGCCC  
TTACGTTTTCTGTCTGCTCGGGTACATCCTGGAGAACTAATGCAAGTTGGGTTATGAAAGGAACGTTGGAATA  
TCTCATGAGCAATAACCCCACTGCTCAGAGCTTACGAGAATCTTATATTTTAAATTTGTCCTATGTTAAATCC  
AGATGGTGTCAATGGAATCATCGCTGTTCTTAAAGTGAGAGGATTGGAATAGGCAGTGGCAAAGTCCAAG  
TCCGGATTACATCCTACAATTTACCATGCTAAGGGGCTGTTGCAATACTTGGCTGCAGTGAAGCGTTTACCCTT  
GGTTTATTGTGATTATCATGGCCATTCCCGAAAGAAGATGATTTTATGTATGGTTGCAGCATCAAAGAGACAGT  
GTGGCATAACCAATGATAATGCAACTTCATGTGATGTTGTGGAGGATACGGGATACAGGACATTGCCTAAGATACT  
GAGCCATATCGCCCCAGCATTTTGCATGAGCAGCTGTAGCTTCGTAGTGGAAAAATCTAAAGAATCCACAGCACG  
TGTTGTAGTTTGGAGGGAATAGGAGTACAAAGAAGTTATACCATGGAGAGTACTTTATGTGGCTGTGATCAGGG  
AAAAACAAGGGTTTACAGATTGGTACCCGAGAACTGGAAGAGATGGGAGCAAAATTTTGTGTTGGTCTTTTACG  
TTTGAAAAGACTGACCTCTCCATTGGAGTATAATCTGCCCTCCAGCCTGCTTGACTTTGAAAATGATTTAATTGA  
ATCAAGCTGCAAAGTAAGTACCCCTACCACTTATGTCTTGGATGAAGATGAACCTCGATTCTTGAAGAAGTTGA  
TTACAGTGCAGAAAGTAATGATGAGTTAGATATTGAGTTGGCTGAAAATGTAGGAGATTATGAACCTTCTGCTCA

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**FIGURE 386B**

AGAAGAAGTACTTTCTGACTCTGAATTATCAAGAACATACCTACCTTGAGCCCCGCTGCCATCTCTTGTTAACTGC  
AAAGAATAAATGAAATATCTTGGTTTTTTATTTCCCAGGAAGCTTGAGAGAAATGAGTTTATACAGAGCTGACTCA  
AAAAGACAAAAAGTAACTTGGGCCAGTTTGGTTTCAAGATAATAAATGTGTTATTAATTAATGATAAAAATTGGCG  
CTTGTTTTATTTTCGATATTCAATGCACCTTTATGTAGCATTGAATGATCAAATATTGGATTTACCTTTAAAAAAA  
AAAAACCTGAGTATCATTGCATGAATTTTTATCTCCCTATGGTTATATCCTGCATCAAGTGGATAATTTTGAAGT  
GTGTTTCAAGATATAAAATTGAAATTTTAGAGTTGTTGAAAATCCTGACTTGTGAAAATAATATATATGTACAT  
GGATTTCTATAGATGTGTTTGTGTTAGAAAGTGGGTAGATATTGCAGATAAGACTGTTCTTCAGAAATCATGTTAACT  
ATTGGGTTGTGACTGAAGTAGTGCAGGGTTTGCCTTGAAACCATTACATTCTACATTTACCAAATTAAACAAATA  
AAAACCTGTATTAAATGTTGC

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**FIGURE 387**

MSKLKVIPEKSLTNNRIVGLLAQLEKINAEPSESDTARYVTSKILHLAQSQEKTRREMTAKGSTGMEILLSTLE  
NTKDLQTTLNILSILVELVSAGGGRRVSFLVTKGGSQILLQLLMNASKESPPEHEDLMVQIHSILAKIGPKDKKFG  
VKARINGALNITLNLVKQNLQNHRLVLPCLQLLRVYSANSVNSVSLGKNGVVELMFKIIGPFSKKNSSLIKVALD  
TLAALLKSKTNARRAVDRGYVQVLLTIYVDWHRHDNRHRNMLIRKILRSLKSVTNIKLGRKAFIDANGMKILYN  
TSQLPVIPVTGPVAQLYSLPPEVDDVVDESDDNDDIDVEAENETENEDDLDQNFKNDDIETDINKLKPQQEPGRT  
IEDLKMYEHLFPELVDDFQDYDLISKEPKPFVFEGKVRGPIVVPTAGEGTSGNSGNLRKVVMKENISSKGDEGEK  
KSTFMDLAKEDIKDNDRTLQQQPGDQNRTISSVHGLNNDIVKALDRITLQNIPSQTAPGFTAEMKKDCSLPLTVL  
TCAKACPHMATCGNVLFEGRTVQLGKLCCTGVGTEDDEDTESNSSVEQASVEVPDGPTLHDPDLYIEIVKNTKSV  
PEYSEVAYPDYFGHIPPPFKEPILERPYGVQRTKIAQDIERLIHQSDIIDRVVYDLNPNYTIPEEGDILKFNSK  
FESGNLRKVIQIRKNEYDLILNSDINSNHYHQWFYFEVSGMRPGVAYRFNIINCEKSNSQFNMGQPLMYSVQEA  
LNARPWWIRMGTDICYYKNHFSRSSVAAGGQKGKSYTTITFTVNFPKHDDVCYFAYHYPYTYSTLQMHLOKLESA  
HNPQQIYFRKDVLCETLSGNSCPLVTITAMPESNYEHIHCFRNRPHYVFLSARVHPGETNASWVMKGTLEYLMSN  
NPTAQSLRESYIFKIVPMLNPDGVINGNHRCSLSGEDLNRQWQSPSPDLHPTIYHAKGLLQYLAAVKRLPLVYCD  
YHGHSRKKNVFMYGCSIKETVWHTNDNATSCDVVEDTGYRTLKILSHIAPAFCMSSCSFVVEKSKESTARVVW  
REIGVQRSYTMESTLCGCDQGKYKGLQIGTRELEEMGAKFCVGLLRKRLTSPLEYNLPSSLLDFENDLIESSCK  
VTSPTTYVLDEDEPRFLEEVDYSAESNDELDELAEENVGDYEPSAQEEVLSDSELSRTYLP

**FIGURE 388**

GGCGGACGCTGGAAAGCGCCGTTCTGACTCTAATGTACTTAGACACTTGAAGCCACAAAAGGATTTATCCCCGA  
GGTTCTCATCTGCTCGCGAGGATGCCTTTTCTCTTCTGCTTGCAGAAATAACAGCAGCCTAGCTGTTGCCCGTG  
ACCAGTGAGAAAGGCAGCGTCGCGGGCTGATTAGGTTTACCCCAAAGGGTGCCGCGGCCGAATTGGTTTCTAACG  
AGAACTTTTAAAATGATCCGTTCCAAAAAAGGGTAGGAGCCGCGAGACCTCCAAGTCCCAGAGAAAAACAAGTC  
TCGTCTGGCAAAGTTCTCGGCCACGCGGTCCGCGGCCAAGGGCCAACGGTCCCTCGCCCCACGTTGCCGCGAGCA  
CTGCGCGTGCGCGAGCCGCTGTCAAACGCGCTGACGGAGGCCGAGAAGAAAAAAGGCGGGAGCCGTCAATCCCG  
GGTTGAGCAAAATGCGCGGGGAGAAGGAGATGCAGGAGTTACCCGTAGCTTCTTCCGAGGCCGCCCGGACCTCA  
GCACGCTTACGCATTCCATCGTGCGGCGGAGGTAAGTCTAGCTCACTCGGGCCGCGAGCCACCTGGAGCCCCGAGGAGA  
AGCAGGCACTGAAGCGGCTGGTGGAGGAGGAGCTGCTGAAGATGCAGGTGGATGAAGCCGCTTCCAGGGAAGACA  
AACTGGACCTTACCAAGAAGGGCAAGAGGCCTCCCACCCCTTGTAAGCAGCCGGAGAGAAAAAGGTTCCGCTTCA  
ATTGAGAGTCGGAGTCCGGCTCTGAAGCCTCCAGCCCAGACTACTTTGGACCCCCAGCAAAGAATGGGGTGGCAG  
CAGAAGTCAGCCCAGCCAAAGAGGAGAATCCAAGGCGAGCCTCAAAGGCAGTTGAGGAGAGCAGTGATGAGGAAC  
GGCAGAGGGACCTGCCCGCACAGAGGGGAGAGGAGAGCAGTGAGGAGGAGGAAAAGGGGTACAAGGGGAAGACTA  
GGAAGAAACCTGTGGTAAAGAAGCAGGCACCAGGCAAGGCCTCAGTCAGTAGGAAGCAGGCCAGGGAAGAAAGTG  
AGGAGAGCGAGGCAGAACCCGTTGAGAGACAGCAAAGAAGGTGGAGGGAAATAAAGGAAGTAAAGGCCTGAAGG  
AAAGTGAACAGGAGAGTGAAGAGGAGATCCTAGCCCAGAAGAAAGAGCAGAGAGAGGAGGAAGTGGAGGAGGAAG  
AGAAAGAAGAGGATGAGGAAAAGGGGATTGGAACCCAGAACCAGGAGCAATGGCCGGAGAAAGTCAGCTAGGG  
AGGAGAGGAGCTGTAAGCAGAAAAGCCAGGCAAAGAGGCTCTTGGGAGACTCAGACAGCGAGGAAGAGCAGAAAG  
AGGCAGCCAGCAGTGGGGATGACAGTGGGAGAGATAGAGAACCCCCAGTGCAGAGGAAGAGTGAGGACAGGACCC  
AGCTTAAGGGTGGGAAGAGGTTGAGTGGGAAGCAGCGAGGACGAGGAAGACAGTGGGAAGGGGGAACCCACAGCTA  
AAGGCTCTAGAAAGATGGCCAGACTGGGCAGCACCAGTGGTGAGGAAAGTGACTTGGAGAGGGAGGTAAGTGACA  
GCGAGGCAGGGGGAGGCCCCAGGGGGAGAGGAAGAACCCTCTTCCAAGAAGAGCTCCAGGAAAGGCAGGACAC  
GAAGCTCCTCTTCTCCTCAGATGGAAGTCCAGAGGCCAAAGGAGGGAAGGCTGGCTCAGGTCGCCGTGGAGAGG  
ACCACCCGGCTGTGATGAGGCTGAAGCGCTACATTGCGGCCCTGTGGTGCCCATCGAAACTACAAGAAGCTGTTGG  
GCTCCTGTTGCTCACACAAGGAGCGCCTGAGTATCCTCCGGGCAGAACTGGAAGCGCTAGGCATGAAGGGTACCC  
CTTCCCTAGGGAAGTGTCGGGCCCTGAAGGAGCAGAGGGAGGAGGCAGCTGAGGTGGCCTCCTTGATGTTGCGA  
ACATCATCAGTGGCTCGGGCCGGCCACGCAGACGTACAGCCTGGAACCCCTTAGGAGAAGCAGCACCCCCAGGGG  
AGCTGTACCGACGACCCCTGGACTCAGATGAAGAGCGCCCCGTCCCGCACCCCCAGACTGGTCACATATGCGTG  
GCATCATCAGCAGTGATGGCGAGAGTAAGTGAAGCTCTGCCACCCCCAGGAGGGACCCCTTGATACATGTACAAAGC  
ATACATAGCACCCCTTGCCCTGTGTCTGTGGAACAGAAGCAGCTTCCTTCAGAGAAGACTGCAGCTCCCAAGGAC  
ACAAGCTGTTGGGATGCTACTTCTCAGCTTCACGCTGTCCCTTTAAGGTGTTTATTTTTTAAGACTCAATAAAGG  
AGTGTTTTTAATCACCTCAAAAAAAA

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**FIGURE 389**

MAREKEMQEFTRSFFRGRPDLSTLTHSIVRRRYLAHSGRSHLEPEEKQALKRLVEEELLKMQVDEAASREDKLDL  
TKKGKRPTPCSDPERKRFRFNSESESGSEASSPDYFGPPAKNGVAAEVSPAKEENPRRASKAVEESSDEERQRD  
LPAQRGEESSEEEKGYKGKTRKKPVVKKQAPGKASVSRKQAREESESEAEVPQRTAKKVEGNKGTKSLKESEQ  
ESEEI LAQKKEQREEEVEEEKEEDEEKGDWKPRTRSNRRKSAREERSCKQKSQAKRLLGDSDEEEQKEAAS  
SGDDSGRDREPPVQRKSEDRTQLKGGKRLSGSSEDEEDSGKGEP TAKGSRKMARLGSTSGEESDLEREVSDSEAG  
GGPQGERKNRSSKKSSRKGRTRSSSSSDGSPEAKGGKAGSGRRGEDHPAVMLKRYIRACGAHRNYKKLLGSCC  
SHKERLSILRAELEALGMKGTPSLGKCRALEQREEA AEVASLDVANIISGSGRPRRR TAWNPLGEAAPP GELYR  
RTLDSDEERPRPAPPDWSHMRGIISDGEN

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**FIGURE 390**

CTCCCTTTGGGCAAGGACCTGAGACCCTTGIGCTAAGTCAAGAGGCTCAATGGGCTGCAGAAGAACTAGAGAAGG  
ACCAAGCAAAGCC**ATG**ATATTTCCATGGAAATGTCAGAGCACCCAGAGGGACTTATGGAACATCTTCAAGTTGTG  
GGGGTGGACAATGCTCTGTGTGATTTCCTGGCACATCATGGAACCGACTGCTGGACTTACCATTATTCTGAAAA  
ACCCATGAACTGGCAAAGGGCTAGAAGATTCTGCCGAGACAATTACACAGATTAGTTGCCATACAAAACAAGGC  
GGAAATTGAGTATCTGGAGAAGACTCTGCCTTTTCAGTCGTTCTTACTACTGGATAGGAATCCGGAAGATAGGAGG  
AATATGGACGTGGGTGGGAACCAACAAATCTCTTACTGAAGAAGCAGAGAAGCTGGGGAGATGGTGAGCCCAACAA  
CAAGAAGAACAAGGAGGACTGCGTGGAGATCTATATCAAGAGAAACAAAGATGCAGGCAAATGGAACGATGACGC  
CTGCCACAACTAAAGGCAGCCCTCTGTTACACAGCTTCTTGCCAGCCCTGGTCATGCAGTGGCCATGGAGAATG  
TGTAAGAAATCATCAATAATTACACCTGCAACTGTGATGTGGGGTACTATGGGCCCCAGTGTCAAGTTTGTGATTCA  
GTGTGAGCCTTTGGAGGCCCCAGAGCTGGGTACCATGGACTGTACTCACCCCTTGGGAACTTCAGCTTCAGCTC  
ACAGTGTGCCTTCAGCTGCTCTGAAGGAACAACTTAACTGGGATTGAAGAAACCACCTGTGGACCATTGGGAAA  
CTGGTCATCTCCAGAACCAACCTGTCAAGTGATTCAAGTGTGAGCCTCTATCAGCACCAGATTGGGGATCATGAA  
CTGTAGCCATCCCCTGCCAGCTTCAGCTTTACCTCTGCATGTACCTTCATCTGCTCAGAAGGAACTGAGTTAAT  
TGGGAAGAAGAAAACCATTTGTGAATCATCTGGAATCTGGTCAAATCCTAGTCCAATATGTCAAAAATTGGACAA  
AAGTTTCTCAATGATTAAGGAGGGTGATTATAACCCCTCTTCATTCCAGTGGCAGTCATGGTTACTGCATTCTC  
TGGGTTGGCATTATCATTTGGCTGGCAAGGAGATTAAAAAAGGCAAGAAATCCAAGAGAAGTATGAATGACCC  
ATAT**TAA**ATCGCCCTTGTTGAAAGAAAATTCTTGGAATACTAAAAATCATGAGATCCTTTAAATCCTTCCATGAA  
ACGTTTTGTGTGGTGGCACCTCCTACGTCAAACATGAAGTGTGTTTCTTCAGTGCATCTGGGAAGATTTCTACC  
TGACCAACAGTTCCTTCAGCTTCATTTGCCCCCTCATTTATCCCTCAACCCCCAGCCACAGGTGTTTATACAG  
CTCAGCTTTTTGTCTTTTCTGAGGAGAAACAAATAAGACCATAAAGGGAAAGGATTCATGTGGAATATAAAGATG  
GCTGACTTTGCTCTTTCTTGACTCTTGTTTTTCAGTTTTCAATTCAGTGTGTACTTGATGACAGACACTTCTAAAT  
GAAGTGCAAAATTTGATACATATGTGAATATGGACTCAGTTTTCTTGACAGATCAAATTTACGTCGTCTTCTGTAT  
ACTGTGGAGGTACACTCTTATAGAAAGTTCAAAAAGTCTACGCTCTCCTTTCTTTCTAACTCCAGTGAAGTAATG  
GGGTCTCTCAAGTTGAAAGAGTCCTATTTGCACTGTAGCCTCGCCGTCTGTGAATTGGACCATCCTATTTAAC  
TGGCTTCAGCCTCCCCACCTTCTTCAGCCACCTCTCTTTTTTCAGTTGGCTGACTTCCACACCTAGCATCTCATGA  
GTGCCAAGCAAAAAGGAGAGAAGAGAGAAATAGCCTGCGCTGTTTTTTAGTTTGGGGGTTTTGCTGTTTTCTTTTA  
TGAGACCCATTCCATTTCTTATAGTCAATGTTTTCTTTTATCACGATATTATTAGTAAGAAAACATCACTGAAAT  
GCTAGCTGCAAGTGACATCTCTTTGATGTCAATGGAAGAGTTAAAAACAGGTGGAGAAATTCCTTGATTACAAAT  
GAAATGCTCTCCTTTCCCTGCCCCAGACCTTTTATCCACTTACCTAGATTCTACATATTCTTTAAATTTTCATC  
TCAGGCCTCCCTCAACCCACCACTTCTTTTATAACTAGTCCTTTACTAATCCAACCCATGATGAGCTCCTCTTC  
CTGGCTTCTTACTGAAAGGTTACCCTGTAACATGCAATTTTGCAATTTGAATAAAGCCTGCTTTTTAAGTGTTAA

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**FIGURE 391**

MIFPWKCQSTQRDNLWNIFKLWGWTMLCCDFLAHHGTDWYHYSEKPMNWQRARRFCRDNYTDLVAIQNKAEIEY  
LEKTLPFSSRSYYWIGIRKIGGIWTWVGTKSLTEEAENWGDGEPNNKKNKEDCVEIYIKRNKDAGKWDDACHKL  
KAALCYTASCQPWSCSGHGECVEIINNYTCNCDVGYYPQCQFVIQCEPLEAPELGTMDC THPLGNFSFSSQCAF  
SCSEGTNLTGIEETTCGPFGNWSSPEPTCQVIQCEPLSAPDLGIMNC SHPLASFSTACTFICSEGTELIGKKK  
TICSSGIWSNPSPICQKLDKSF SMIKEGDYNPLFIPVAVMVTAFSGLAFIIWLARRLKKGKSKRSMNDPY

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**FIGURE 392A**

AACTCATGCGGCCAGAGCGGGAAAGAGACTCGTCTTTGCGTCCGAGTTCTGGAGCCGCCGACCCCGACTCCTGG  
GGCCGCGGCAGCGGCTGCGAGGGGACGGGCGTCCGCTGTCTCCTGGGTTCCCTCGTAGCGACCCGCGGGATCGG  
AAAAAAGGAGAAG**ATG**GAGGAGGAGGGTGGCAGCAGCGCGGCCGCGGGGACCAGCGCGGACGGCGGCGACG  
GAGGAGAGCAGCTCCTCACTGTCAAGCAGAGCTGCGGACTGCTAATTTGACAGGACATGCTGAGAAGGTGGGAA  
TAGAAAATTTTGAGCTCCTGAAGGTCCTAGGAACTGGAGCTTATGGAAAAGTATTTCTAGTTTCGTAAAATAAGTG  
GCCATGATACTGGAAAGCTGTATGCCATGAAAGTTTTGAAAAAGGCAACAATCGTTCAAAAGGCCAAAACCACAG  
AGCATACAAGGACAGAACGACAAGTCCTGGAACACATTAGGCAGTCGCCATTTTGGTAACATTACATTATGCTT  
TCCAGACAGAAACCAAACCTTCATCTCATTTTAGATTATATAAATGGTGGTGAACTTTTTACTCATCTTTCTCAAA  
GAGAGCGTTTCACAGAGCATGAGGTGCAGATTTATGTTGGAGAGATTGTGCTTGCCCTCGAACATCTCCACAAGT  
TGGGGATTATATATCGTGATATTAAGCTTGAGAATATTCTACTTGATTCTAATGGCCATGTGGTGCTGACAGATT  
TTGGTCTGAGTAAGGAGTTTGTGGCTGATGAAACTGAAAGAGCATATTCCTTTTGTGGAACATTGAATACATGG  
CACCAGATATTGTGAGAGGGGAGATTGAGGACATGACAAGGCAGTTGACTGGTGGAGTTTGGGTGTTCTAATGT  
ATGAATTACTAAGTGGAGCATCTCCTTTCACTGTTGATGGAGAAAAAATTCCCAAGCTGAGATATCTAGGAGAA  
TATTAAAAAGTGAGCCTCCATATCCCCAAGAAATGAGTGCTTTAGCGAAAGACCTAATTCAGCGTCTTTTGATGA  
AAGATCCCAAGAAGAGATTGGGATGTGGTCCACGTGATGCAGATGAAATCAAAGAACATCTCTTCTTTTCAGAAAA  
TAAATTGGGATGATTTAGCCGCCAAAAAAGTGCTGCACCATTTAAGCCAGTCATTTCGAGATGAATTAGATGTGA  
GTAACCTTTCAGAGAAGATTACAGAAATGGATCCCACTTATTCTCCCGCAGCCCTGCCCCAGAGTTCTGAGAAGC  
TGTTTCAGGGCTATTCTTTGTTGCTCCTTCCATCCTATTCAAGCGTAATGCAGCTGTCATAGACCCTCTTCAGT  
TTCACATGGGAGTTGAACGTCCTGGAGTGACAAATGTTGCCAGGAGTGCAATGATGAAGGACTCTCCATTCTATC  
AACACTATGACCTAGATTTGAAGGACAAACCCCTGGGAGAAGGTAGTTTTTCAATTTGTGAAAGTGTGTGCATA  
AAAAAAGTAACCAAGCTTTGCAAGTCAAAATAATCAGCAAAAGGATGGAAGCCAATACTCAAAAGGAAATAACAG  
CTCTGAAACTCTGTGAAGGACACCCCAATATTGTGAAGTTGCATGAAGTTTTTTCATGATCAGCTTCACACGTTTC  
TAGTGATGGAACCTCTGAATGGAGGAGAACTGTTTGACGCATTAAGAAAAAAGAAGCACTTCAGTGAGACGGAAG  
CCAGCTACATCATGAGGAAGCTTGTTCAGCTCTAAGCCACATGCATGATCTTGGAGTGGTGCACAGGGATCTGA  
AACCTGAGAATTTATTGTTTACCGATGAAAATGACAATTTGGAATTTAAATAATTGATTTTGGATTGTCACGGC  
TAAAGCCACCGGATAATCAGCCCTGAAGACTCCATGCTTACCCTTCATTTCATGCCGCCAGAGCTCTTGAATC  
AGAACGGCTACGATGAGTCTGTGACCTGTGGAGCTTGGGCGTCATTTTGTACACAATGTTGTCAGGACAGGTTTC  
CCTTCCAATCTCATGACCGAAGTTTGACGTGTACCAGCGCGGTGGAATCATGAAGAAAAATTAAAAAGGGAGATT  
TCTCCTTTGAAGGAGAAGCCTGGAAGAATGTATCCCAAGAGGCTAAAGATTTGATCCAAGGACTTCTCACAGTAG  
ATCCAAACAAAAGGCTTAAATGTCTGGCTTGAGGTACAATGAATGGCTACAAGATGGAAGTCAGCTGTCCTCCA  
ATCCTCTGATGACTCCGGATATTCTAGGATCTTCCGGAGCTGCCGTGCATACCTGTGTGAAAGCAACCTTCCACG  
CCTTTAACAATAACAAGAGAGAGGGGTTTTGCCTTCAGAATGTTGATAAGGCCCTTTGGCTAAGAGAAGAAAA  
TGAAAAAGACTAGCACCAGTACCGAGACGCGCAGAGGGTCCAGTGAGAGTTCCCATTTCTTCTCTCATTCTC  
ACGGTAAACTACACCCACCAAGACACTGCAGCCAGCAATCCTGCCGACAGCAATAACCCGAGACCCTCTTCC  
AGTTCTCGGACTCAGAGCTTAGGCATGGTAGGAGTGATCAG**TGAT**CCATTGCACCTTTATTCCTCAGCATATGC  
CTGAGTCGATCTTTTATGCTTTTAAAAATGTTTCCCGTTGGTCTCATTGGAATCTGCCTCCTAATGATTTTTTTC  
AGGAAAACCTGTTTGGTTATCCTCATTCAAAGCACTGGACAGAGAATGTTACTGTGAATAGAGCACATATTACT  
CTTTTACGAACCTAGCATGATGCCAACAAGACTATTCTTGAAGAGCAAAGGTTCTGTAAATTTAATTAGGGC  
TAGATTTGAGCTGCTTGTAAGTCACAGGTTTTCCAGATGTCTGCCAACAAGAAATGACTCATACTGTGATGATAC  
CTTTTGCTTTGCCTTGTGGACAATGTGGGTTTTTGAATTTGCACCCTTCAAACAATGATTTATCAGAGAAAGGG  
GTCTGTTTTTCAAAAAAGATTCTGTAATGAATTTTATGTGTGGCATATACTTATTTCTTGAGAGAAGATTTTAACT  
TATTGTTTTTATTTTATGGTTACATATGATGATAACCTGCTATTATTAACTTTTTTCTAAAAAGTGAAAAAAAT  
AAAAAAGATATAAGAACTCAAGGTCCCATACTCTGTATTCCGGATCCATCTGAGATGCATGCTAAGCTATGTGTA  
TGTTTTTAATTTTGCACTGCTCTTTTCTGGCAATTTGTTTTAATGGTTATTGCAGAATATTAAGGTACATGTCTC  
TCTGTTTTAAGTAATATTGCACTTTATAAAAAAGTATGAATAAAGCAAACCTATTTTATAAAGTGCACTGTTTTAA  
GCATTTGCACTGTATTTTTGCCATTTATTTTCAATTTTCTACTTTAAATTTGTCCCTCACATGCCCTTTCTACTTTG  
TATGCAACAAGTAGAATGGGGCCTTGTGTGTGATGTAGTCAGCCACTTATGCACCAATGTGAGGAAAACCTAAA  
GGGAAATTAACATAACACTGTGCTTCATATTGTACACTGTGTTGTACTACAGTGAGGAATTTCTCTCTGTAGT



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**FIGURE 392B**

CATATATTATGTACATAATATTTTAGAATCATACCTATGACTTGTTTGGAAATTTTCTGTTGAATTTTAAATCC  
AGAAAGCATATTTTATAAACTTATGCAGAGCACTTTTATTGCTCAAAAAGTTCTGAATTCATACAGAAAACAAGTA  
CTATGTGATGAAAACATTCATTGAAAGATTGCGGCATTTAAAAATACAATTAATTCGTTCCCTATGCAAAAAA  
AAAAAA

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**FIGURE 393**

MEEEGSSGGAAGTSADGGDGGEQLLTVKHELRTANLTGHAEKVGIENFELLKVLGTGAYGKVFLVRKISGHDTG  
KLYAMKVLKKATIVQKAKTTEHTRTERQVLEHIRQSPFLVTLHYAFQTETKLHLILDYINGGELFTHLSQRERFT  
EHEVQIYVGEIVLALEHLHKLGIYRDIKLENILLDSNGHVVLTDGFLSKEFVADETERAYSFCGTIEYMAPDIV  
RGGDSGHDKAVDWWSLGVLMYELLTGASPFTVDGEKNSQAEISRRIKSEPPYPQEMSALAKDLIQRLLMKDPKK  
RLGCGPRDADEIKEHLFFQKINWDDLAACKVPAPFKPVIRDELVDVSNFAEEFTEMPTYSPAALPQSSEKLFQGY  
SFVAPSILFKRNAVIDPLQFHMVERPGVTNVARSAMMKDSPFYQHYDLDLKDKPLGEGSFSICRKCVHKKSNQ  
ALQVKIISKRMEANTQKEITALKCEGHPNIVKLHEVFHDQLHTFLVMELLNGGELFDALRKKKHFSETEASYIM  
RKLVSALSHMHDLGVVHRDLKPENLLFTDENDNLEIKIIDFGFARLKPPDNQPLKTPCFTLHSCRPELLNQNGYD  
ESCDLWSLGVILYTMLSGQVPFQSHDRSLTCTSAVEIMKKIKKGDFSFEGEAWKNVSQEAKDLIQGLLTVDPNKR  
LKMSGLRYNEWLQDGSQSSNPLMTPDILGSSGAHVHTCVKATFHAFNKYKREGFCLQNVDKAPLAKRRKMKKTS  
TSTETRRGSSSESSSSSSSHGKTTPTKTLQPSNPADSNNPETLQFSDSELRHGRSDQ

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**FIGURE 394**

TATATTGGCAGTTATTGAGGGTAAAGCAATATATTGTAACAGAATGTATAAAATATTTTTGATAAAACAGTCTATA  
TTTTATTAAAAAATGAATTATAACCCATTTTCAGTTTTGCCTGCATCATAAGAGTGAGCACTCCATTGCTTTCTT  
TCCTGGCCACACTGCTACAATCCAGCACTAACTATCCATGTCCAGGGTAAGGATCGAGATCGAGAAGCCCACACT  
GCCAGTGAAAAAGCTACGCTTTTACTGCATAAATTAGAGGAAGCAATTTCCGGAACAACGGAACCTTCAAACCTATA  
AATACTGAATTATCGAACACTTGCCAGGCACCTTCAGCAGAAGACAAGGAACTGAAGAAGCTTTTTAGATGAGGA  
ATTTCTCTACTATGATTCCCTGTCCTGCGCAGATGCAATTCAACAACCTCTTCAAGAAAAATTGAAGCAGTGTTG  
CCACAACTATATGGTGGTCAAGAAGCAAGAATACATCAGACACCCCTGACCTTGAAACATACGTGCTGGTACAC  
ACCTCTGCTGGATGCCTTATCTCTGGATAGTTTTACAGCAGTTCCAACCCCTGGAATCAACACCTTTCTCAGGTGT  
AGCCAACCAAATCCACACTCTGTGTGAAAGGCCACATATGGAGAAGTAAAGGATGGTGCTTTGGATGTAAAAAG  
ACAACACAAGTGCCAGGCCCCACAAGTGGCCCCAGCCCAGGAACGAATCTCTCAGGCTGCATCAGGATGAATGA  
TGACCCAAGTATGGAAGAGAATGGTGTGTAACGCGTGTGTCTGAGAGCCTGCTGCAGTCCAGGGGATATTCCTC  
ACTACCATTACCCAGACACACTTCATCGACAGACGGTACTATAACTTCAAGTGATCCTGGATTAGAAATTCTGAA  
TATGGCTTCTTGTGACCTTGACAGAACTCGCTCTGTGAAGAAAGAGGAGGATACAAGATCAGCTTCTCCCACGAT  
AGAGGCCCAAGGCACAAGTCCAGCTCATGATAATATTGCATTCCAAGACTCTACGAGTAAGGATAAAACCATATT  
AAATCTGGAAGCCAAAAGAGGAACCAGAAACAATAGAAGAACATAAAAAAGAACATGCTTCAGGAGACTCTGTGGT  
TTCCCTCTTCTGTAAACCACTGTGAAATCGGTTAACGTTAGACAAAAGTGAGAACACTTCTGCTAATGAGAAGGA  
GGTGGAGGCAGAATTTCTCAGATTATCTTTGGGATTTAAGTGTGACTGGTTTACCTTGGAGAAGAGAGTGAAGCT  
TGAAGAGAGGTCCCGTGACTGGGCAGAAGAAAATTTGAAGAAAGAAATCACTAACTCTTTAAACTATTAGAGTC  
TTTAACACCTCTGTGTGAAGATGACAACCAGGCACAGGAAATCATTAGAAGCTGGAGAAGAGTATAAAGTTTCT  
TAGCCAGTGTGCAGCACGAGTGGCCAGTAGGGCTGAGATGTTGGGAGCCATCAATCAGGAAAGCCGGGTTAGTAA  
AGCAGTTGAAGTGATGATTGAGCACGTAGAAAACCTGAAGAGGATGTATGCCAAAGAGCACGCTGAATTAGAAGA  
ACTGAAACAGGTTCTTCTGCAGAATGAAAGGTCTTTCAATCCTCTTGAAGATGATGATGACTGCCAAATTAAGAA  
ACGTTTCTAGCTTCTCTAAACTCCAAGCCATCTTCTCTACGAAGAGTGACTATTGCCTCTTTACCCAGAAATATTGG  
AAATGCAGGAATGGTGGCTGGGATGGAAAATAATGATCGATTGAGTAGAAGGTCAAGCAGTTGGCGTATTTTGGG  
GTCAAAGCAGAGTGAACACCGTCCCTCATTACCTCGATTTATTAGCACCTATTCTGGGCAGATGCTGAAGAAGA  
AAAATGTGAACTAAAACTAAAGATGACTCAGAGCCATCTGGAGAAGAAAACAGTAGAAAGGACAAGGAAGCCAAG  
TCTTTCTGAAAAGAAAAATAATCCATCAAAGTGGGATGTCTCTTTCAGTTTATGACACAATAGCTTCTGGGCAAC  
AAATCTCAAGTCTCCATCAGAAAGGCTAATAAGGCCCTCTGGCTCTCTATTGCATTCTTGTACTGTTTGCAGC  
TTTGATGAGCTTCTCACAGGCCAATTATTCCAGAAGTCTGTGGATGCCGCTCCACACAGCAAGAGGACTCATG  
GACGTCTCTAGAACATATCTTGTGGCCATTTACCAGACTCCGACACAATGGGCCACCACCAGTGTGACAGCAGGA  
CATCCTAATATATGGATCTTGATTTTTAAGTTTCAGTATCTGAACTTCGTAAATTAGTAACTTTTAGCTGGGAAA  
GTATAGCATGAAACCAGAGGTTCTCAGAATGACCGTAAGATAGCTTACATTTCTCTTTTTGCCTTTATCTCCCC  
AACTAAATACAATGGG

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**FIGURE 395**

LESTPFSGVANQIHTLCERPTYGEVKDGDALDVKRQHKCPGPTSGPSPGTNLSCIRMNDDPSMEENGVERVCPES  
LLQSRGYSSLPLPRHTSSTDGTITSSDPGLEILNMASCDLDRNSLCKKEEDTRSASPTIEAQGTSPAHDNIAFQD  
STSKDKTIILNLEAKEEPETIEEHKKEHASGDSVVSPLPVTTVKSVNVRQSENTSANEKEVEAEFLRLSLGFKCDW  
FTLEKRVKLEERSRDWAEENLKKEITNSLKLLESITPLCEDDNQAQEI IKKLEKSIKFLSQCAARVASRAEMLGA  
INQESRVSKAVEVMIQHVENLKRMYPKEHAELEELKQVLLQNERSFNPLEDDEDCQIKKRSASLNSKPSSLRRVT  
IASLPRNIGNAGMVAGMENNDRFRRSSSWRILGSKQSEHRPSLPRFISTYSWADAEEEKCELKTKDDSEPSGEE  
TVERTRKPSLSEKKNNPSKWDVSSVYDTIASWATNLKSSIRKANKALWLSIAFIVLFAALMSFLTGLFQKSVDA  
APTQQEDSWTSLEHILWPFTRLRHNGPPP

## FIGURE 396A

CGAAAGGCCGGCCTTGGCTGCGACAGCCTGGGTAAGAGGTGTAGGTGGCTTGGTTTTCTGCTACCCGGAGCTGG  
GCAAGCGGGTGGGAGAACAGCGAAGACAGCGTGAGCCTGGGCCGTGCTCGAGGCTCTCGCCCGGCTTCTCTTG  
CCGACCCGCCACGTTTGTGTTGGATTTAATCTTCAGGTTGCCGGCGCCCGCCCGCTGGCCTCGCGGTGTGAG  
AGGGAAGCACCCGTGCTGTGGCTGGTGGCTGGCGCCTGGAGGGTCCGCACACCCGCCCGCGCGCGCTTTGC  
CCGCGGCAGCCGCTCCCTGAACCGCGGAGTCGTGTTGTGTTGACCCGCGGGCGCGGTGGCGCGCGGCCGAG  
GCCGGTGTGCGCGGGCGGGCGGTGCGCGCGGAGGCAGAGGAAGAGGGAGCGGGAGCTCTGCGAGGCCGGGCGC  
CGCC**ATG**GAACTGGGCCCGAGCCCCGACCGCGCCGCTGCTCTTCGCTGCAGCCCCCTCCCGCTGCGAGCC  
CGTCTGAAGGCGCTATTTGGCGCTTCAGCCGCCGGGGGACTGTGCTGTACCAACCTGACCGTCACTATGGA  
CCAGCTGCAGGGTCTGGGCAGTGATTATGAGCAACCACTGGAGGTGAAGAACAACAGTAATCTGCAGAGAATGGG  
CTCCTCCGAGTCAACAGATTCAAGTTTCTGTCTAGATTCTCCTGGGCCATTGGACAGTAAAGAAAACCTTGAAAA  
TCCTATGAGAAGAATACATTCCCTACCTCAAAAGCTGTTGGGATGTAGTCCAGCTCTGAAGAGGAGCCATTCTGA  
TTCTCTTGACCATGACATCTTTCAGTCTATCGACCCAGATGAGAACAAGGAAAATGAAGCCTTTGAGTTTAAGAA  
GCCAGTAAGACCTGTATCTCGTGGCTGCTGCACTCTCATGGACTCCAGGAGGGTAAAGATCTCTTCACACAGAG  
GCAGAACTCTGCCCAGCTCGGAATGCTTTCCTCAAATGAAAGAGATAGCAGTGAACCAGGGAATTTCACTCTCT  
TTTTACACCCAGTCACCTGTGACAGCCACTTTGTCTGATGAGGATGATGGCTTCGTGGACCTTCTCGATGGAGA  
GAATCTGAAGAATGAGGAGGAGACCCCTCGTGCATGGCAAGCCTCTGGACAGCTCCTCTCGTCACTGAGAACTAC  
AAACCTTGACAACCGATGCAAGCTGTTTGACTCCCCTTCCCTGTGTAGCTCCAGCACTCGGTCACTGTTGAAGAG  
ACCAGAACGATCTCAAGAGGAGTCTCCACCTGGAAGTACAAAGAGGAGGAAGAGCATGTCTGGGGCCAGCCCCAA  
AGAGTCAACTAATCCAGAGAAGGCCCATGAGACTCTTCATCAGTCTTTATCCCTGGCATCTTCCCCCAAAGGAAC  
CATTGAGAACATTTTGACAATGACCCAAGGGACCTTATAGGAGACTTCTCCAAGGGTTATCTCTTTCATACAGT  
TGCTGGGAAACATCAGGATTTAAATACATCTCTCCAGAAATTATGGCATCTGTTTTGAATGGCAAGTTTGCCAA  
CCTCATTAAAGAGTTTGTATCATCGACTGTGATAACCATATGAATACGAGGGAGGCCACATCAAGGGTGCAGT  
GAACTTGCACATGGAAGAAGAGGTTGAAGACTTCTTATTGAAGAAGCCATTGTACCTACTGATGGCAAGCGTGT  
CATTGTTGTGTTTCACTGCGAGTTTTCTTCTGAGAGAGGTCCCCGCATGTGCCGGTATGTGAGAGAGAGAGATCG  
CCTGGGTAATGAATACCCCAAACCTCCACTACCCTGAGCTGTATGTCTGAAGGGGGGATACAAGGAGTTCTTTAT  
GAAATGCCAGTCTTACTGTGAGCCCCCTAGCTACCGGCCCATGCACCACGAGGACTTTAAAGAAGACCTGAAGAA  
GTTCCGCACCAAGAGCCGGACCTGGGCAGGGGAGAAGAGCAAGAGGGAGATGTACAGTCGTCTGAAGAAGCTCT**TG**  
**AGGGCGGCAGGACCAGCCAGCAGCAGCCCAAGCTTCCCTCCATCCCCCTTTACCCTCTTTGCTGCAGAGAACTT**  
**AAGCAAAGGGGACAGCTGTGTGACATTTGAGAGGGGGCCTGGGACTTCCATGCCTTAAACCTACCTCCCACACT**  
**CCCAAGGTTGGAGCCAGGGCATCTTGCTGGCTACGCCTCTTCTGTCCCTGTTAGACGTCTTCCGTCCATATCAG**  
**AACTGTGCCACAATGCAGTTCTGAGCACCGTGTCAAGCTGCTCTGAGCCACAGTGGGATGAACCAGCCGGGGCCT**  
**TATCGGGCTCCAGCCATCTCATGAGGGGAGAGGAGACGGAGGGGAGTAGAGAAGTTACACAGAAATGCTGCTGGC**  
**CAAATAGCAAAGACAACCTGGGAAGGAAAGGTCTTTGTGGGATAATCCATATGTTTAATTTATTCAACTTCATCA**  
**ATCACTTATTTTATTTTTTTTTTCTA**ACTCCTGGAGACTTATTTTACTGCTTCATTAGGTTGAAATACTGCCATT  
CTAGGTAGGGTTTTATTATCCAGGGACTACCTCGGCNNNNNNNNNNNNNNNNNNNNNGAAGTGGGTAAGAAAAT  
GCAAACCTGTTATAAGTTATCGGACAGAAAGCTAGGTGCTCTGTACCCCCAGGAGGCGCTGTGGTACTGGGGCT  
GCTGCTATTTAAGCCAAGAACTGAGGTCTGGTGAGAGCGTTGGACCCAGGCTTGGCTGCCTGACATAAGCTAAA  
TCTCCCAGACCCACCACTGGCTACCGATATCTATTTGGTGGGAGGTGTGGCCCTGTTCTTCTCACCCAGTTCC  
ATGACATTGGCTGGTATAGGAGCCACAGTCAGGAAAGCACTTGAGGCAGCATCTGTTGGGCCACCCCGGCTCAG  
TGCTGGAATGTTGCAGTGTAGGTTTCCAGGCAAGGGGGGTGGGGGTAGGTGGGCTCCACAGGATGGGGGAGGAG  
CATGTCCACTGAGTATCTTCTTATGTTGCTGTGATATTGATAGCTTTTATTTTCTAATTTTTAAAAAATGGTCA  
TATTATGAGTCAAAGAGTATCAAATCAGTGTTGGATGGACCACCAAGGGTGAGGAGAGGGGCTGGAAGCCCTGG  
GCATTAGGAGAAGGGAGTGGGTGCTGGCATGGACATGACTGGATAGAATTTTCTCAGGAGGGAGCTTGGTGGATT  
TTGAAGGTAAACTTTCTGGGTTTATCATGTTTTAATTTTAGAGACAGGGAGTGATGAATCATACCGGTTGTCC  
CCTTATCTAACTCCATAAAAGTGGGAATTTCAAAGAACACCTCATCCAAGGAGCTGGGGCAGACTTCATTGATT  
CTAGAGAGACCTGTTTCACTGCTACTCATCCCTGCCCTCTGGTGCCAGCCTCCTTACCATCACGGCTTCACTGA  
GGTGTAGGTGGGTTTTTCTTAAACAGGAGACAGTCTCTCCCTCTTACCTCAACTTCTTGGGGTGGGAATCAGTG  
ATACTGGAGATGGCTAGTTGCTGTGTTACGGGTTTGAGTTACATTTGGCTATAAAACAATCTTGTGGGAAAAAT

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**FIGURE 396B**

GTGGGGGAGAGGACTTCTTCCTACACGCGCATTGAGACAGATTCCAACCTGGTTAATGATATTGTTTGTAAGAAAG  
AGATTCTGTTGGTTGACTGCCTAAAGAGAAAGGTGGGATGGCCTTCAGATTATACCAGCTTAGCTAGCATTACTA  
ACCAACTGTTGGAAGCTCTGAAAATAAAAGATCTTGAACCCAT

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**FIGURE 397**

MELGPSAPRRLLFACSPPPASQPVVKALFGASAAGGLSPVTNLIVTMDQLQGLGSDYEQPLEVKNNNSNLQRMGS  
SESTDSGFCLDSPGPLDSKENLENPMRRIHSLPQKLLGCSPALKRSHSDSLDHDIFQLIDPDENKENEAFEFKKP  
VRPVSRGCLHSHGLQEGKDLFTQRQNSAQLGMLSSNERDSSEPGNFIPLFTPQSPVTATLSDEDDGFVDLLDGEN  
LKNEEETPSCMASLWTAPLVMRTTNLDNRCKLFDSPSLCSSSTRSVLKRPERSQEESPPGSTKRRKSMGASPK  
STNPEKAHETLHQSLSLASSPKGTIENILDNDPRDLIGDFSKGYLFHTVAGKHQDLKYISPEIMASVLNGKFANL  
IKEFVIIDCRYPYEYEGGHIKAVNLHMEEEVEDFLLKKPIVPTDGKRVIVVFHCEFSSERGPRMCRYVRERDRL  
GNEYPKLHYPELYVLKGGYKEFFMKCQSYCEPPSYRPMHHEDFKEDLKKFRTKSRTWAGEKSKREMYSLKKL

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**FIGURE 398A**

CGGGCAGCGTGGACCCCGGATGAGTTGCTTTTAGGCTTGCTGGCCCGGGGCTGTCCAGGCACGCGAGGCCCT  
CAGGTACGCCCTCTCTCCCTGCAGGATCCGGCCCTCAAAGACGAGGGTCACGCACGCGTTACAACCCGAAACA  
GTAGCACAAGATTTAATTTTTTAAAGAGCGTGTTTCTTCGGGGCTTGCCGTTTCGTTTCGTTTCAGCCTCAGGAAT  
TTATGGTCGCCTTTTTGAATGAGCAACAAATGCTTCAACAAGTTCCAGAAAAACATAAATTTTCTGCTGAAGAA  
GAGAAAATCTTGGAGTTTGGACTGAATTTAATTGTTTTAGGAATGCTTAAAGCAATCAAAACATAAACCAAAA  
TTTACCTTCTATGATGGTCCTCCTTTTGCAACTGGACTGCCTCACTATGGACATATACTTGCGGGTACAATTAA  
GATATAGTTACAAGATATGCTCACCAGAGTGGGTTTCATGTTGACAGAAGATTGGATGGGATTGCCATGGCTTA  
CCTGTGGAATATGAAATTGATAAGACACTGGGAATCAGAGGACCAGAGGATGTGGCCAAAATGGGGATTACAGAG  
TATAACAATCAGTGCCGAGCAATTGTGATGAGATATTCTGCTGAGTGGAAGTCTACTGTTAGCAGACTTGGCCGA  
TGGATTGACTTTGACAATGACTATAAACTCTGTATCCACAATTCATGGAATCAGTCTGGTGGGTCTTCAAACAA  
CTCTATGATAAAGGCCCTTGTTTATAGAGGTGTGAAAGTCATGCCCTTCTCTACGGCATGTAACACTCCACTTTCC  
AACTTCGAGTCACACCAGAATTATAAGGATGTTCAAGATCCTTCAGTATTTGTAACCTTTCCCTTTGGAAGAAGAT  
GAAACTGTATCTTTAGTTGCTTGGACAACCACTCCCTGGACTCTACCTAGTAACCTTGCTGTGTGTGTTAATCCA  
GAAATGCAATATGTGAAAATTAAAGATGTTGCCAGAGGACGATTACTCATTTTAATGGAAGCCAGATTGTCAGCC  
CTCTATAAATTGGAGAGTGACTATGAGATCCTTGAAAGATTTCCCTGGTGCCATCTTAAAGGCAAGAAGTACAGG  
CCCCTGTTTGACTATTTCCCTGAAGTGTAAGAGAATGGCGCTTTCACTGTGCTTGTTGACAACATATGTGAAGGAA  
GAAGAAGGCACAGGGGTTGTCCACCAAGCTCCTTACTTCGGTGCTGAGGACTATCGGGTCTGTATGGACTTTAAC  
ATTATTCGGAAGACTCACTCCCTGTTTGCCCTGTGGATGCTTCAGGCTGCTTCACAACGGAGGTGACAGATTC  
GCAGGACAGTATGTGAAGGATGCTGACAAAAGTATCATCAGGACTTTGAAGGAACAAGGCCGACTTCTGGTTGCC  
ACCACCTTCACTCACAGTACCCTTTTTGCTGGAGATCAGACACTCCTCTAATTTACAAAGCAGTGCCAGCTGG  
TTTGTCGAGTGGAAGACATGGTGGACCAGCTCCTAAGGAACAATGACCTGTGCTACTGGGTCCAGAGTTGGTA  
CGAGAAAAACGATTGGAATTGGCTGAAAGATGCACGTGACTGGACAATTTCCAGAAACAGATACTGGGGCACC  
CCCATCCCCTGTGGGTGAGGATGACTTTGAGGAGGTGGTATGCATTGGGTGAGTGGCGGAACCTTGAAGAACTG  
TCAGGAGCAAAGATCTCAGATCTCCACAGAGAGAGTGTGACCACCTGACCATTCCCTTCACGCTGTGGGAAGGGA  
TCCTTGACCCGATCTCTGAAGTGTTGACTGTTGGTTTGAGAGTGGCAGCATGCCCTATGCTCAGGTTTCAATAC  
CCGTTTGAAAACAAGAGGGAGTTTGAGGATGCTTTTCTGCAGATTTTATTGCGGAGGGCATCGACCAAACAGAA  
GGATGGTTTTATACCTGCTGGTGCTGGCCACGGCCCTCTTTGGACAACCGCTTTCAAGAACGTAATTGTGAAT  
GGGCTTGCTCTGGCAAGTGATGGCCAAAAAATGAGCAACCGAAAAAGAATTATCCAGATCCAGTTTCCATCATC  
CAGAAGTATGGTGCTGATGCCCTCAGATTATATCTGATTAACCTCCCTGTGGTGAGAGCAGAAAACTCCGCTTT  
AAAGAAGAGGGTGTGCGGGACGTCCTTAAGGATGTACTGCTCCCATGGTACAATGCCTATCGCTTCTTAATCCAG  
AACGTTCTGAGGCTCCAGAAGGAGGAAGAAATAGAATTTCTCTACAATGAGAACACGGTTAGAGAAAGCCCCAAC  
ATTACAGACCGGTGGATCCTGTCTTTCATGCAGTCTCTCATTGGCTTCTTTGAGACTGAAATGGCAGCTTATAGG  
CTTTATACTGTGGTGCCTCGCCTGGTCAAGTTTGTAGATATTCTGACCAATTGGTATGTTAGAATGAACCGCAGA  
AGATTAAAGGGTGAAAATGGGATGGAGGATTGTGTATGGCCCTAGAAACCTTGTTTAGTGTTCTGCTTTCTCTT  
TGCAGACTTATAGCTCCCTACACACCTTTTCTCACTGAATTGATGTACCAGAATCTAAAGGTGCTGATTGACCTT  
GTTTCTGTTTCAAGGACAAGGACACACTCAGCATTCACTACCTCATGCTGCCCCGTGTTTCGAGAAGAATTGATTGAC  
AAGAAAACAGAGAGTGCAATATCTCAGATGCAGTCTGTGATTGAACTTGAAGAGTGATCAGAGACCGAAAACT  
ATTCCCATAAAGTATCCTTTGAAAGAAATTGTGGTTATCCATCAAGATCCAGAAGCTCTTAAAGATATCAAGTCT  
TTGGAGAAGTATATCATTGAGGAACCTCAATGTTTCGAAAAGTTACACTGTCTACAGATAAAAACAAGTATGGCATT  
CGGCTAAGGGCAGAACCAGATCACATGGTCCTGGGGAAGCGTCTGAAGGGAGCCTTTAAGGCAGTGATGACGTCC  
ATCAAGCAGTTGAGCAGTGAGGAGCTGGAGCAGTTCCAGAAGACTGGGACCATTGTTGTGGAAGGCCATGAATTG  
CACGATGAAGACATCCGCCTCATGTACACCTTTGATCAGGCCACAGGTGGGACTGCGCAATTTGAAGCACACTCA  
GATGCTCAGGCTTTGGTCCTCTTAGATGTCACTCCTGACCAGTCAATGGTAGATGAAGGAATGGCTCGGGAAGTC  
ATCAATCGCATACAGAACTTCGCAAAAAGTGCAATCTGGTTCCAACCTGATGAAATCACAGTGTACTATAAAGCA  
AAGTCTGAAGGAACATATCTGAATAGTGTTATTGAAAGCCACACAGAGTTTCATATTTACCACCATAAAGGCTCCC  
TTGAAACCATATCCAGTTTCTCCATCGGATAAAGTCTTATTCAAGAAAAAACACAGTTGAAGGGATCTGAACTG  
GAAATTACACTCACCAGAGGATCTTCCCTTCCCTGGTGCTGCTTGTGTCATATGTCAATCTTAACATTTGTGCAAT  
GGCAGTGAACAAGGTGGAGTATTGCTCCTGGAATAAAGGTGACAATAGGTTGGACCTTTTAAAGCTGAAG



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**FIGURE 398B**

AGTGTTGTCACTAGCATTTTTGGTGTGAAAAATACAGAGCTGGCTGTCTTCCATGATGAAACAGAAATACAAAAC  
CAAAC TGACTTACTGAGTCTTAGTGGA AAAACACTTTGTGTGACTGCAGGATCGGCTCCCTCTCTGATCAACAGT  
TCTAGTACTCTTCTTTGTCAGTATATCAACCTACAGCTCCTGAATGCAAAGCCACAAGAGTGTTTAATGGGGACA  
GTGGGCACTCTCCTGCTTGAAAACCCACTTGGGCAGAAATGGACTCACCCACCAAGGTCTTCTGTATGAAGCAGCC  
AAGGTGTTTGGCCTTCGGAGCAGGAAGCTAAAGCTGTTTCTGAATGAGACCCAAACGCAGGAAATTACAGAAGAC  
ATCCCCGTGAAGACTTTGAATATGAAGACTGTGTATGTTTCTGTGTTACCAACAACAGCAGACTTCTAGCATGTA  
CTTATCAATGTTGTTTCGGTCAGCCCTTCCCTAATTACACCTATCCCCTACACATACATGCACATAGACACACACA  
TGAACACACTGAAGATATTTCCCTTCAGGTGTGTGTAAAATATGCTGCTTGGATTGAAATTCAAATGGGATTGATT  
AGTCAAGTAACTTGAGACCTCACAGTAATCTTCACACTTAACCTTAGACACCTATGCAGTCATGTTGGGAGCAGG  
TTACAATGTTACTTCAGCCACAGTTTATTTCTATTCTTGAGTTCTTAAGTACAGAAGATAGAAGTGATTTAAAT  
GGCATAGTATATATATCATTCTTGGCCTTTTAAAATTTATTTGAGACCTCTTGATGAAATGGACATATTATATA  
TTTCTGCCACCTGGATTTTCCTGGATAATTTGATGGAATATTTAAGTTTCAGTAAATCAGAACAATAAACAAAC  
TCAGATAT

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**FIGURE 399**

MLQQVPENINFPAAEEKILEFWTEFNCFQECLKQSKHKPKFTFYDGPPFATGLPHYGHILAGTIKDIVTRYAHQS  
GFHVDRRFGWDCHGLPVEYEIDKTLGIRGPEDVAKMGITEYNNQCRAIVMRYSAEWKSTVSRLGRWIDFDNDYKT  
LYPQFMESVWWVFKQLYDKGLVYRGVKVMPFSTACNTPLSNFESHQNYKDVQDPSVFTFPLEEDETIVSLVAWTT  
TPWTLPSNLAVCVNPEMQYVKIKDVARGRLILMEARLSALYKLESDYEILERFPGAYLKGKKYRPLFDYFLKCK  
ENGAFTVLVDNYVKEEEGTGVVHQAPYFGAEDYRVCMDFNIRKDSLPCPVDASGCFTTEVTDFAGQYVKDADK  
SIIRTLKEQGRLLVATTFTHSYPFCWRSDTPLIYKAVPSWFVRVENMVDQLLRNNDLCYWVPELVREKRFGNWLK  
DARDWTISRNYWGTP IPLWVSDDFEEVVCIGSVAELEELSGAKISDLHRESVDHLTIPSRGKGS LHRISEVFD  
CWFESGSMPIYAQVHYPFENKREFEDAFPADFIAEGIDQTRGWFTLLVLATALFGQPPFKNVIVNGLVLASDGQK  
MSKRKKNYDPVSI IQKYGADALRLYLINSPVVRANLRFKEEGVRDVLKDVLLPWYNAYRFLIQNVRLRQKEEE  
IEFLYNENTVRESPNITDRWILSFMQSLIGFFETEMAAAYRLYTVPRLVKFVDILTWNVYVRMNRRLKGENGMED  
CVMALETLFSVLLSLCRLIAPYTPFLT ELMYQNLKVLIDPVSVQDKDTLSIHYLMLPRVREELIDKKTESAVSQM  
QSVIELGRVIRDRKTIPIKYPLKEIVVIHQDPEALKDIKSLEKYIEELNVRKVTLSTDKNKYGIRLRAEPDHMV  
LGKRLKGAFKAVMTSIKQLSSEEELEQFQKTGTIVVEGHELHDEDIRLMYTFDQATGGTAQFEAHSDAQALVLLDV  
TPDQSMVDEGMAREVINRIQKL RKKCNLVPTDEITVYYKAKSEGTYLNSVIESHTEFIFTTIKAPLKPYPVSPSD  
KVLIQEKTQLKGSELEITLTRGSSLPGPACAYVNLNICANGSEQGGVLLLENPKGDNRLDLLKLKSVVTSIFGVK  
NTELAVFHDETEIQNQTDLLSLSGKTL CVTAGSAPSLINSSSTLLCQYINLQLLNAKPQECLMGTVGTLLLENPL  
GQNGLTHQGLLYEAAKVFLRSRKLKFLNETQTQEITEDIPVKTLNMKTVYVSVLPTTADF

**FIGURE 400**

GAAAAGCGCGCGGGGATTCCAGGAGTCGTGGTTTCTTGCCCTTGATGTACTGGAGCAATCAGATCACACGGCGG  
CTTGAGAGTGAGTGCAAGTTTTTATGAGTGGAATTAGCCCTCAGCAGATGGGGGAGCCAGAAGGCAGTTGGAGT  
GGGAAGAACCCAGGGACCATGGGCGCCTCCAGGCTCTATAACCTGGTGCTGGTCCTGCAGCCTCAGCGAGTTCTC  
CTGGGCATGAAAAAGCGAGGCTTCGGGGCCGGCCGGTGGAATGGCTTTGGGGGCAAAGTGCAAGAAGGAGAGACC  
ATCGAGGATGGGGCTAGGAGGGAGCTGCAGGAGGAGAGCGGTCTGACAGTGGACGCCCTGCACAAGGTGGGCCAG  
ATCGTGTTTGAGTTCGTGGGCGAGCCTGAGCTCATGGACGTGCATGTCTTCTGCACAGACAGCATCCAGGGGACC  
CCCGTGGAGAGCGACGAAATGCGCCCATGCTGGTTCCAGCTGGATCAGATCCCCTTCAAGGACATGTGGCCCGAC  
GACAGCTACTGGTTTCCACTCCTGCTTCAGAAGAAGAAATTCCACGGGTACTTCAAGTTCCAGGGTCAGGACACC  
ATCCTGGACTACACACTCCGCGAGGTGGACACGGTCTTAGCGGGAGCCCAGGGCAGCCCCTGGGCAGGAGACGTGG  
CTGCTGAACAGCTGCAAACCATCTTCACCTGGGGGCATTGAGTGGCGCAGAGCCGGGTTTCATCTGGAATTAAT  
GGATGGAAGGGAAAAATAAGCTATCTAGCGGTGAAAAA

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**FIGURE 401**

MSGISPQQMGEPEGWSGKNPGTMGASRLYTLVLVLQPQRVLLGMKKRGFGAGRWNGFGGKVQEGETIEDGARRE  
LQEESGLTVDALHKVGQIVFEFVGEPELMDVHVFCDSIQGTPVESDEMPCWFQLDQIPFKDMWPDDSYWFPLL  
LQKKKFHGYFKFQGQDTILDYTLREVDTV

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**FIGURE 402**

GGCACGAGGCAGGCCACCCGCCGCTAAGCTGAGAAGGGAGAGCGAGCTTAGGACCGCCTGCCCGGGGCAACCCCG  
AACCAAGCTTTAGCCGCCGAGGCCGCGTGTCCCAAAGGCCAGTCATCCCTCCTCTGTGTTGCC**ATG**GGAATTCAA  
GGCCTGGCCAAACTAATTGCTGATGTGGCCCCCAGTGCCATCCGGGAGAATGACATCAAGAGCTACTTTGGCCGT  
AAGGTGGCCATTGATGCCTCTATGAGCATTATCAGTTCCTGATTGCTGTTGCCAGGGTGGGGATGTGCTGCAG  
AATGAGGAGGGTGAGACCACCAGCCACCTGATGGGCATGTTCTACCGCACCATTTCGCATGATGGAGAACGGCATC  
AAGCCCGTGTATGTCTTTGATGGCAAGCCGCCACAGCTCAAGTCAGGCGAGCTGGCCAAACGCAGTGAGCGGCGG  
GCTGAGGCAGAGAAGCAGCTGCAGCAGGCTCAGGCTGCTGGGGCCGAGCAGGAGGTGGAAAAATTCTACTAAGCGG  
CTGGTGAAGGTCACTAAGCAGCACAAATGATGAGTGCAACATCTGCTGAGCCTCATGGGCATCCCTTATCTTGAT  
GCACCCAGTGAGGCAGAGGCCAGCTGTGCTGCCCTGGTGAAGGCTGGCAAAGTCTATGCTGCGGCTACCGAGGAC  
ATGGACTGCCTCACCTTCGGCAGCCCTGTGCTAATGCGACACCTGACTGCCAGTGAAGCCAAAAAGCTGCCAATC  
CAGGAATTCACCTGAGCCGGATTCTGCAGGAGCTGGGCCTGAACCAGGAACAGTTTGTGGATCTGTGCATCCTG  
CTAGGCAGTGACTACTGTGAGAGTATCCGGGGTATTGGGGCCAAAGCGGGCTGTGGACCTCATCCAGAAGCACAA  
AGCATCGAGGAGATCGTGCGGCGACTTGACCCCAACAAGTACCCTGTGCCAGAAAATTGGCTCCACAAGGAGGCT  
CACCAGCTCTTCTTGGAACCTGAGGTGCTGGACCCAGAGTCTGTGGAGCTGAAGTGAGCGAGCCAAATGAAGAA  
GAGCTGATCAAGTTCATGTGTGGTGAAGAGCAGTTCTCTGAGGAGCGAATCCGCAGTGGGGTCAAGAGGCTGAGT  
AAGAGCCGCCAAGGCAGCACCCAGGGCCGCCTGGATGATTTCTTCAAGGTGACCGGCTCACTCTCTTCAGCTAAG  
CGCAAGGAGCCAGAACCCAAGGGATCCACTAAGAAGAAGGCAAAGACTGGGGCAGCAGGGAAGTTTAAAGGGGA  
**AAATAAA**TGTGTTTCCCCATTATACCTCCTTCACCCCAAGATATTGCGCTCTTGTACCCTTAAGAGCTACAGCT  
AGAGAAACCTTCACGGGGTGGAGAGAGGATTCTAAGGCTTTTCTAGCGTGACCCTTTTTCAGTAGTGCTAGTCCCT  
TTTTTACTTGATCTTAATGGCAAGAAGGCCACAGAGGTACTTTTCTTTTTTAGCTCAGGAAAATATGTCAGGCT  
CAAACCACTTCTCAGGCAGTTTAATGGACACTAAGTCCATTGTTACATGAAAGTGATAGATAGCAACAAGTTTTG  
GAGAAGAGAGAGGGAGATAAAAGGGGGAGACAAAAGATGTACAGAAATGATTTCTGGCTGGCCAACTGGTGGCC  
AGTGGGAGGTGATGGTGGACCTAGACTGTGCTTTTCTGTCTTGTTACGCCTTGACCCACCTTGAGAGAGAGCCAC  
CAGGAAGGCGCATCTTAGCAGATGGGAGGAACTGCTGAGAGAAGATGGGCAGAAAGCTGGAGCCCTGGAGTTGG  
CTGTGTCTGTGTTTGTGACTGATTACTGGCTGTGTCTTGGGTGGGCAGAACTCGAACTTGCTATGTAATTTGTG  
TCTAGTTATTAGAGGAGTAAGATGGTGATGTTACCTGGCAATCAGCTGAGTTGAGACTTTGGAATAAGACACT  
GGTTTTCATGCGCTGTTTTTGTGTTTAAAGTTATGAAGAAAAAAGTCAATAAAATTCTAAAAGTAAAAAAAAAAAA  
AAAAAA

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**FIGURE 403**

MGIQGLAKLIADVAPSAIRENDIKSYFGRKVAIDASMSIYQFLIAVRQGGDVLQNEEGETTSHLMGMFYRTIRMM  
ENGIKPVYVFDGKPPQLKSGELAKRSERRAEAEKQLQQAQAAGAEQEVEKFTKRLVKVTKQHNDCKHLLSLMGI  
PYLDAPSEAEASCAALVKAGKVYAAATEDMDCLTFGSPVLMRHLTASEAKKLP IQEFHLSRILQELGLNQE QFVD  
LCILLGSDYCESIRGIGPKRAVDLIQKHKSIEEIVRRLDPNKYPVPENWLHKEAHQLFLEPEVLD PESVELKWSE  
PNEEELIKFMCGEKQFSEERIRSGVKRLSKSRQGSTQGRLD DFFKVTGSLSSAKRKEPEPKGSTKKKAKTGAAGK  
FKRGK

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**FIGURE 404**

AGTCCTGCGATTTCGGGTGTAGAGGGAGCAGGGGCCTGCGGGGACCTGGTGTGGGTGGAGTGGGGACAAGCGGTG  
 GAGAAGGGTACGCCAGGGTCGCTGAGAGACTCTGTTCTCCCTGGAGGGACTGGTTGCCATGAGAGCAGCCGTCTG  
 AGGGGACGCAGCCTGCACTACGCGCCCCAAGAGGCTGTGCGTGGCGAGCAGGTCACGTGACGGGAGCGCGGGCTT  
 TGGAAGGCGGCTGAACGTACAGGCCACCCGCCGCTAAGCTGAGAAGGGAGAGCGAGCTTAGGACCGCCTGCCCCGG  
 GCAACCCCGAACCAAGCTTTAGCCGCCGAGGCCGCGTGTCCCAAAGGCCAGTCATCCCTCCTCTGTGTTGCC**ATG**

GGAATTCAAGGCCTGGCCAACTAATTGCTGATGTGGCCCCAGTGCCATCCGGGAGAATGACATCAAGAGCTAC  
 TTTGGCCGTAAGGTGGCCATTGATGCCTCTATGAGCATTATCAGTTCCTGATTGCTGTTGCCAGGGTGGGGAT  
 GTGCTGCAGAATGAGGAGGGTGAGACCACCAGCCACCTGATGGGCATGTTCTACCGCACCATTCGCATGATGGAG  
 AACGGCATCAAGCCCGTGTATGTCTTTGATGGCAAGCCGCCACAGCTCAAGTCAGGCGAGCTGGCCAAACGCAGT  
 GAGCGGCGGGCTGAGGCAGAGAAGCAGCTGCAGCAGGCTCAGGCTGCTGGGGCCGAGCAGGAGGTGGAAAAATTC  
 ACTAAGCGGCTGGTGAAGGTCACTAAGCAGCACAAATGATGAGTGCAAACATCTGCTGAGCCTCATGGGCATCCCT  
 TATCTTGATGCACCCAGTGAGGCAGAGGCCAGCTGTGCTGCCCTGGTGAAGGCTGGCAAAGTCTATGCTGCGGCT  
 ACCGAGGACATGGACTGCCTCACCTTCGGCAGCCCTGTGCTAATGCGACACCTGACTGCCAGTGAAGCCAAAAAG  
 CTGCCAATCCAGGAATTCACCTGAGCCGGATTCTGCAGGAGCTGGGCCTGAACCAGGAACAGTTTGTGGATCTG  
 TGCATCCTGCTAGGCAGTGACTACTGTGAGAGTATCCGGGGTATTGGGCCCAAGCGGGCTGTGGACCTCATCCAG  
 AAGCACAAGAGCATCGAGGAGATCGTGCGGCGACTTGACCCCAACAAGTACCCTGTGCCAGAAAATTGGCTCCAC  
 AAGGAGGCTCACCAGCTCTTCTTGGAACCTGAGGTGCTGGACCCAGAGTCTGTGGAGCTGAAGTGGAGCGAGCCA  
 AATGAAGAAGAGCTGATCAAGTTCATGTGTGGTGAAGAGCAGTTCTCTGAGGAGCGAATCCGCAGTGGGGTCAAG  
 AGGCTGAGTAAGAGCCGCCAAGGCAGCACCCAGGGCCGCTGGATGATTTCTTCAAGGTGACCGGCTCACTCTCT  
 TCAGCTAAGCGCAAGGAGCCAGAACCCAAGGGATCCACTAAGAAGAAGGCAAAGACTGGGGCAGCAGGGAAGTTT  
 AAAAGGGGAAAA**TAA**ATGTGTTTCCCCATTATACCTCCTTCACCCAGAAATATTTGCCGTCTTGTAACCTTAAGA  
 GCTACAGCTAGAGAAACCTTCACGGGGTGGAGAGAGGATTCTAAGGCTTTTCTAGCGTGACCCTTTTTCAGTAGTG  
 CTAGTCCCTTTTTTACTTGATCTTAATGGCAAGAAGGCCACAGAGGTACTTTTCTTTTTTAGCTCAGGAAAATA  
 TGTACGGCTCAAACCACTTCTCAGGCAGTTTAAATGGACACTAAGTCCATTGTTACATGAAAGTGATAGATAGCAA  
 CAAGTTTTGGAGAAGAGAGAGGGAGATAAAAGGGGGAGACAAAAGATGTACAGAAATGATTTCTGGCTGGCCAA  
 CTGGTGGCCAGTGGGAGGTGATGGTGGACCTAGACTGTGCTTTTCTGTCTTGTTCAGCCTTGACCCACCTTGAGA  
 GAGAGCCACCAGGAAGGCGCATCTTAGCAGATGGGAGGAAGTCTGAGAGAAGATGGGCAGAAAGCTGGAGCCCC  
 TGGAGTTGGCTGTGTCTGTGTTTGTGACTGATTACTGGCTGTGTCTTGGGTGGGCAGAACTCGAAGTTGCTATG  
 TAATTTGTGTCTAGTTATTCAGAGGAGTAAGATGGTGTGTTACCTGGCAATCAGCTGAGTTGAGACTTTGGAA  
 TAAGACACTGGTTTTTCATGCGCTGTTTTGTGTTTAAAGTTATGAAGAAAAAAGTCAATAAAATTCTAAAAGTAAA  
 AAAAAAAAAAAAAA

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**FIGURE 405**

MGIQGLAKLIADVAPSAIRENDIKSYFGRKVAIDASMSIYQFLIAVRQGGDVLQNEEGETTSHLMGMFYRTIRMM  
ENGIKPVYVFDGKPPQLKSGELAKRSERRAEAEKQLQQAQAAGAEQEVEKFTKRLVKVTKQHNDCKHLLSLMGI  
PYLDAPSEAEASCAALVKAGKVYAAATEDMDCLTFGSPVLMRHLTASEAKKLPIQEFHLSRILQELGLNQEQFVD  
LCILLGSDYCESIRGIGPKRAVDLIQKHKSIEEIVRRDPNKYPVPENWLHKEAHQLFLEPEVLDPEVELKWSE  
PNEELIKFMCGEKQFSEERIRSGVKRLSKSRQGSTQGRLDDFFKVTGSLSSAKRKEPEPKGSTKKKAKTGAAGK  
FKRGK



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**FIGURE 406**

GCACGCCCAGCGAGTTCCAGAGGCGCCAGTGGAAGCTGCGGCGGCGGTGTCTCGCGTTCGGCGGGATTTCCTTC  
 GCTCCGGCTCGGCCCTAGGTCTACGTCCCCAGCTCCAGCCGCCGGCTCGGACTCGGTCTCTGACCCCAACTCGGT  
 CCCCTAGTCCGGCCCCGGCTCCGGGCCCCCAACCCTCGCTCCGGCCCCGGCCCCAGCCCCAGCCCTGCCG  
 CCGGCCCCAGGCCCCGCGCGCGCTCCCGCCTGGAGCCGCCGCGCGCCCCAGCCCCCTGCACCCCTCGG  
 CCCCTCGCCTTCCTCTTCCCGGCGCGGCCCCCGGCTTCGCGCGCCGCCGCCACCAATCCTCTTGCTACCATG

TCCGTGGAGCTCGAGGAGGCCCTGCCAGTGACGACCGCCGAGGGAATGGCCAAGAAGGTGACCAAGGCTGGCGGC  
 TCGGCGGCGTTGTCCCCATCTAAGAAGAGGAAGAATAGCAAGAAGAAGAACCGCGGCAAGTACAGCCAGCTG  
 GTGGTGGAGACCATCCGTAGGTGGGCGAGCGCAACGGCTCGTCGCTGGCCAAGATCTACACCGAGGCCAAGAAG  
 GTTCCGTGGTTTCGACCAGCAGAATGGGCGCACCTACCTCAAGTACTCGATCAAGGCGCTGGTGCAGAACGACACG  
 CTTCTGCAGGTGAAGGGCACCGGCGCCAACGGTTTCCTTCAAGCTCAACCGCAAGAAGCTGGAGGGCGGCGGGGAG  
 CGGCGCGGAGCCCCGGCGGCGCCACCGCCCCGGCCCCACCGCGCACAAAGCGAAGAAGGCAGCCCCGGGCGCG  
 GCCGGCTCCCGGCGCGCGGACAAGAAGCCCGCCAGGGGCCAGAAGCCGGAGCAGCGCTCGCACAGAAGGGCGCT  
 GCGGCCAAGAAGGACAAAGGCGGCAAGGCCAAGAAGACGGCGGCGCGCGGGGCAAGAAGGTGAAGAAGGCGGCC  
 AAGCCCAGCGTCCCCAAAGTGCCCAAGGGCCGCAAGTGAGCGTGTGCGCCGGTTCAGAGCGGCCGGCGTGGGCTTT  
 TCGGTGTTTTTGTCTTTCTACCCCAAGTGACGTAGATTTTGTACGGCTCACGCCGGCCGGGGCCGCGAGGCCTGG  
 TCTGAGCCTCAGGGAGGGGCCCCGGGTCTCTCAGTCTTTCCCTCCCCAACGATGTAGCGTTTTTCGTTGTTT  
 GCTTTAGGTTTTTGAAACAGCCCCGGCGACGCCTCTATTGGCTCTCGGCCTTGGAACGGCCGTCGTCATGGTTA  
 CTGGCCCCTAGGCGCCGATGGCCGAGGCCGCGCCTGCCCACGGGCGGGGTCGCTGGTTGGCCGGGCCCAGGCGC  
 GCGGGGACGCGGAGGCCGCGCATCCTTTCCAGCTCCCCACCTCCTTGCTTTGGGTGCGCGACAAACAATCGC  
 TCCGGGCTCAGGGCTGCGCGGCTCTTCCCTTCATTCCATGGGCCTTTTTTTGGGCACAATAAAGCGTTTAAACCT  
 TTC

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**FIGURE 407**

MSVELEEALPVTTAEGMAKKVTKAGGSAALSPSKKRKNSKKKNQPGKYSQLVVETIRRLGERNGSSLAKIYTEAK  
KVPWFDQQNGRTYLYKYSIKALVQNDTLLQVKGTGANGSFKLNRKKLEGGGERRGAPAAATAPAPTAHKAKKAAPG  
AAGSRRADKKPARGQKPEQRSHKKGAGAKKDKGGKAKKTAAAGGKKVKKAAPSVPKVPKGRK

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**FIGURE 408**

ACGCGTCCGCTTCGGAATGAGAGACTCAACCATAATAGAAAAGAAATGGAGAACTATTAACCACCATTCCTTCAGTGG  
GCTGTGATTTTCAGAGGGGAATACTAAGAAATGGTTTTCCATACTGGAACCCAAAGGTAAAGACACTCAAGGACA  
GACATTTTGGCAGAGCATAGATGAAAATGGCAAGTTCCTGGCTTTCCTTCTGCTCAACTTTCATGTCTCCCTC  
TTCTTGGTCCAGCTGCTCACTCCTTGCTCAGCTCAGTTTTCTGTGCTTGGACCCTCTGGGCCCATCCTGGCCATG  
GTGGGTGAAGACGCTGATCTGCCCTGTACCTGTTCCCGACCATGAGTGCAGAGACCATGGAGCTGAGGTGGGTG  
AGTTCAGCCTAAGGCAGGTGGTGAACGTGTATGCAGATGGAAAGGAAGTGAAGACAGGCAGAGTGCACCATAT  
CGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTGCAGGGGAAGGCTGCTCTCCGAATACACAACGTACAGCC  
TCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATGGTGACTTCTACGAAAAGCCCTGGTGGAGCTGAAGGTT  
GCAGCATTGGGTTCTGATCTTCACATTGAAGTGAAGGGTTATGAGGATGGAGGGATCCATCTGGAGTGCAGGTCC  
ACTGGCTGGTACCCCCAACCCCAATAAAGTGGAGCGACACCAAGGGAGAGAACATCCCGGCTGTGGAAGCACCT  
GTGGTTGCAGATGGAGTGGGCCTGTATGCAGTAGCAGCATCTGTGATCATGAGAGGCAGCTCTGGTGGGGGTGTA  
TCCTGCATCATCAGAAATTCCTCCTCGGCCTGGAAAAGACAGCCAGCATATCCATCGCAGACCCCTTCTTCAGG  
AGCGCCAGCCCTGGATCGCGGCCCTGGCAGGGACCCTGCCTATCTCGTTGCTGCTTCTCGCAGGAGCCAGTTAC  
TTCTTGTGGAGACAACAGAAGGAAAAAATTGCTCTGTCCAGGGAGACAGAAAGAGAGCGAGAGATGAAAGAAATG  
GGATACGCTGCAACAGAGCAAGAAATAAGCCTAAGAGAGAAGCTCCAGGAGGAACCTCAAGTGGAGGAAAAATCCAG  
TACATGGCTCGTGGAGAGAAGTCTTTGGCCTATCATGAATGGAAAATGGCCCTCTTCAAACCTGCGGATGTGATT  
CTGGATCCAGACACGGCAAACGCCATCCTCCTTGTCTTGAGGACCAGAGGAGTGTGCAGCGTGTGAAGAGCCG  
CGGGATCTGCCAGACAACCCTGAGAGATTTGAATGGCGTTACTGTGTCCTTGGCTGTGAAAACCTTCACATCAGGG  
AGACATTACTGGGAGGTGGAAGTGGGGGACAGAAAAGAGTGGCATATTGGGGTATGTAGTAAGAACGTGGAGAGG  
AAAAAAGGTTGGGTCAAATGACACCGGAGAACGGATACTGGACTATGGGCCTGACTGATGGGAATAAGTATCGG  
GCTCTCACTGAGCCCAGAACCAACCTGAACTTCTGAGCCTCCTAGGAAAGTGGGGATCTTCTGGAATATGAG  
ACTGGAGAGATCTCGTTCTATAATGCCACAGATGGATCTCATATCTACACCTTTCGACGACGCTCTTCTCTGAG  
CCTCTATATCCTGTTTTTCAGAATTTTGACCTTGGAGCCCACTGCCCTGACCATTGCCCCAATACCAAAAGAAGTA  
GAGAGTTCCCCCGATCCTGACCTAGTGCCTGATCATTCCCTGGAGACACCACTGACCCCGGGCTTAGCTAATGAA  
AGTGGGGAGCCTCAGGCTGAAGTAACATCTCTGCTTCTCCCTGCCACCCTGGAGCTGAGGTCTCCCTTCTGCA  
ACAACCAATCAGAACCATAAGCTACAGGCACGCACTGAAGCACTTTACTGATATTTCATTCCATTATTCCATATGA  
CAGTTGTTTTGAGTTTCGTACCACCTTATTGTCCCCTTATACAGATAAGGAAACTGGGGTGCAGAAAGGTGAATT  
AACTTTACAAAGTAGACATGACAAGTGAACAGCAGAGCTGGGATCTAAACAGCAATAACTAACATTAACAGAGAA  
TTTAAATGTTCTTAGTGCTGTGTTATAAGCTTTGGTGGATGTCACTCCTTTAATCCTCACAACACCCTGTCGGG  
TAGTCATATTTGCAAGTATGGAAGCTGAGGCAGGGCAACATGAAGTAACCTTACATAATTACATACAGTAATTTGT  
GCAGTTGGGAGATGTTACGCTTAGTCCCTGGCTAATTGCCTGTTCTTTTCCAGCCTGATTTTTTTTCCCACAGG  
AAGAGCCCACATGTAGCCCTGAGGTTTCTTCCCAGGACAGCTGCAGGGTAGAGATCATTTTAAAGTGCTTGTGGA  
GTTGACATCCCTATTGACTCTTCCCAGCTGATATCAGAGACTTAGACCCAGCACTCCTTGGATTAGCTCTGCAG  
AGTGTCTTGGTTGAGAGAATAACCTCATAGTACCAACATGACATGTGACTTGGAAAGAGACTAGAGGCCACACTT  
GATAAATCATGGGGCACAGATATGTTCCCACCCAACAAATGTGATAAGTGATTGTGCAGCCAGAGCCAGCCTTCC  
TTCAATCAAGGTTTCCAGGCAGAGCAAATACCCTAGAGATTCTCTGTGATATAGGAAATTTGGATCAAGGAAGCT  
AAAAGAATTACAGGGATGTTTTTAATCCCCTATGGAAGTCTCCTGGAAATAGGTCTGTCCACTCCTGGTCA  
TTGGTGGATGTTAAACCCATATTCCTTTCAACTGCTGCCTGCTAGGGAAAAGTCTCCTCATTATCATCACTATT  
ATTGCTCACCCTGTATCCCTCTACTTGGCAAGTGGTTGTCAAGTTCTAGTTGTTCAATAAATGTGTTAATAAT  
GAAAAA

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**FIGURE 409**

MKMASSLAFLLLNFHVSFLVQLLTPCSAQFSVLGSPGPIILAMVGEDADLPCHLFPTMSAETMELRWVSSSLRQV  
VNVYADGKEVEDRQSAPYRGRITSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGFYEKALVELKVAALGSDL  
HIEVKGYEDGGIHLECRSTGWYPQPQIKWSDTKGENIPAVEAPVVADGVGLYAVAASVIMRGSSGGGVSCIIRNS  
LLGLEKTASISIADPFFRSAQPWIAALAGTLPISLLLLAGASYFLWRQQKEKIALSRETEREREMKEMGYAATEQ  
EISLREKLQEELKWRKIQYMARGEKSLAYHEWKMALFKPADVILDPDTANAILLVSEDQRSVQRAEEPRLPDNP  
ERFEWRYCVLGCENFTSGRHYWEVEVGDRKEWHIGVCSKNVERKKGWVKMTPENGYWTMGLTDGNKYRALTEPRT  
NLKLPEPPRKVGIFLDYETGEISFYNATDGSHIYTFPHASFSEPLYPVFRILTLEPTALTICPIPKEVESSPDPD  
LVPDHSLETPLTPGLANESGEPQAEVTSLLLPAHPGAEVSPSATTNQNHKLQARTEALY

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**FIGURE 410**

CGCACTCCCTGCTGGGTGAGCAGCACTGTAAAG**ATGA**AGCTGGCTAACTGGTACTGGCTGAGCTCAGCTGTTCTT  
GCCACTTACGGTTTTTTGGTTGTGGCAAACAATGAAACAGAGGAAATTAAAGATGAAAGAGCAAAGGATGTCTGC  
CCAGTGAGACTAGAAAGCAGAGGGAAATGCGAAGAGGCAGGGGAGTGCCCCCTACCAGGTAAGCCTGCCCCCTTG  
ACTATTCAGCTCCCGAAGCAATTCAGCAGGATCGAGGAGGTGTTCAAAGAAGTCCAAAACCTCAAGGAAATCGTA  
AATAGTCTAAAGAAATCTTGCCAAGACTGCAAGCTGCAGGCTGATGACAACGGAGACCCAGGCAGAAACGGACTG  
TTGTTACCCAGTACAGGAGCCCCGGGAGAGGTTGGTGATAACAGAGTTAGAGAATTAGAGAGTGAGGTTAACAAG  
CTGTCTCTGAGCTAAAGAATGCCAAAGAGGAGATCAATGTACTTCATGGTCGCCTGGAGAAGCTGAATCTTGTA  
AATATGAACAACATAGAAAATTATGTTGACAGCAAAGTGGCAAATCTAACATTTGTTGTCAATAGTTTGATGGC  
AAATGTTCAAAGTGTCCTCAGCCAAGAACAATACAGTCACGTCCAGTTCAACATCTAATATATAAGATTGCTCT  
GACTACTACGCAATAGGCCAAAAGAAGCAGTGAGACCTACAGAGTTACACCTGATCCCAAAAATAGTAGCTTTGAA  
GTTTACTGTGACATGGAGACCATGGGGGGAGGCTGGACAGTGCTGCAGGCACGTCTCGATGGGAGCACCAACTTC  
ACCAGAACATGGCAAGACTACAAAGCAGGCTTTGGAAACCTCAGAAGGGAATTTTGGCTGGGGAACGATAAAATT  
CATCTTCTGACCAAGAGTAAGGAAATGATTCTGAGAATAGATCTTGAAGACTTTAATGGTGTGCGAACTATATGCC  
TTGTATGATCAGTTTTATGTGGCTAATGAGTTTCTCAAATATCGTTTACACGTTGGTAACTATAATGGCACAGCT  
GGAGATGCATTACGTTTCAACAAACATTACAACCACGATCTGAAGTTTTTCACCACTCCAGATAAAGACAATGAT  
CGATATCCTTCTGGGAACGTGTGGGCTGTACTACAGTTCAGGCTGGTGGTTTGATGCATGTCTTCTGCAAACCTTA  
AATGGCAAATATTATCACCAAAAATACAGAGGTGTCCGTAATGGGATTTTCTGGGGTACCTGGCCTGGTGTAAGT  
GAGGCACACCCTGGTGGCTACAAGTCCTCCTTCAAAGAGGCTAAGATGATGATCAGACCCAAGCACTTTAAGCCA  
**TAAA**ATCACTCTGTTTCATTCCTCCAGGTATTCGTTATCTAATAGGGCAATTAATTCCTTCAGCACTTTAGAATATG  
CCTTGTTTCATATTTTTCATAGCTAAAAAATGTTTGACATCCTTTGAGATATTTTATTACTAAAATCTGCC

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**FIGURE 411**

MKLANWYWLSSAVLATYGFLVVANNETEEIKDERAKDVCPVRLESRGKCEEAGECPYQVSLPPLTIQLPKQFSRI  
EEVFKEVQNLKEIVNSLKKSCQDCKLQADDNGDPGRNGLLLPSTGAPGEVGDNRVRELESEVNKLSSELKNAKEE  
INVLHGRLEKLNLVNMNNIENYVDSKVANLTFVVNSLDGKCSKCPSEQEIQSRPVQHLYKDCSDYYAIGKRSSE  
TYRVTPDPKNSSFEVYCDMETMGGGWTVLQARLDGSTNFTRTWQDYKAGFGNLRREFWLGNDKIHLLTKSKEMIL  
RIDLEDFNGVELYALYDQFYVANEFKYLRLHVGNYNGTAGDALRFNKHYNHDLKFFFTTPDKDNDRYPSGNCGLYY  
SSGWWFDACLSANLNGKYHHQYRGVRNGIFWGTWPGVSEAHPPGGYKSSFKEAKMMIRPKHFKP

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**FIGURE 412**

TCCCAGCTGCGCGTCGCGAGTCCCGACGCGAGAAGGGCTGGAGTCGGCGTCCAGCCTAGAGCCCCGGTGGGAGCC  
AGGCCGGGACGCGTGCACCATGCCCTACCTGCTCATCAGCACCCAGATCCGCATGGAGGTGGGCCCCACTATGGT  
GGGCGATGAACAGTCGGATCCAGAGCTGATGCAGCATCTGGGGGCTTCAAAGAGAAGAGCCTTGGGAAACAACCTT  
TTATGAATACTACGTCGATGACCCTCCCCGCATAGTCCTGGACAAGCTGGAACGCAGGGGCTTCCGTGTGCTGAG  
CATGACGGGGGTGGGCCAGACGCTGGTGTGGTGTCTGCACAAGGAGTGACCTTCTCATGCTGATTTGCAGACGGG  
GCACCCCTGTGGAGGGGCTGCTGTGGGCCCTGACCTCCAAGCTCCTGCCTCACCGTCTGCCTTGCTCCTCTCTTC  
CCAAATCATCACCGCCATGGGGCCAGCCCCAAAGGGCAGTGAATGGCCTTCTCTGAAACCCTGCGTCAAGCAGTG  
GGAGAGGGCAGTGGCCGGTGCCCTGGTGCTCCCAGCTGCCCTCCTGCTTCGGGCCTGGGCCGAGGGCCTTGTGTA  
GGCCATGTTCTCGGGCAGCTGCCCCGGGCCGAGCTGGGCACTCCAGCGGCCCTGGCGCGTGGCTCCTGCATAG  
CTAGCCCAAGCCAATAAAGGGCTGTGATGAGTGGCTGC

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**FIGURE 413**

MPYLLISTQIRMEVGPTMVGDEQSDPELMQHLGASKRRALGNNFYEYYVDDPPRIVLDKLERRGFRVLSMTGVGQ  
TLVWCLHKE



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**FIGURE 414**

GCGTCTGCCAGGAGCTACGGCCGGAAG**ATG**GCGGCGGCCGAGAGTTGTCGCTACTGGAGAAGTCCCTGGGACTG  
 AGTAAGGGGAATAAATACAGTGCTCAGGGCGAGCGACAGATTCCAGTTCTTCAGACAAACAATGGTCCAAGTCTA  
 ACAGGATTGACTACTATAGCAGCTCATCTAGTCAAGCAAGCCAACAAAGAATATTTGCTGGGGAGTACTGCAGAA  
 GAAAAAGCAATCGTTCAGCAGTGGTTAGAATACAGGGTCACTCAAGTAGATGGGCACTCCAGTAAAAATGACATC  
 CACACACTGTTGAAGGATCTTAATTCATATCTTGAAGATAAAGTCTACCTTACAGGGTATAACTTTACATTAGCA  
 GATATACTATTGTACTATGGACTTCATCGCTTTATAGTTGACCTGACAGTTCAAGAAAAGGAGAAATATCTTAAT  
 GTGTCTCGCTGGTTTTGTGCACATTCAGCATTATCCAGGCATCAGGCAACATCTGTCTAGTGTTGTCTTCATCAAG  
 AACAGACTATATACTAATTCCCACT**TAGA**AGCTGTCCATGCCATACAGAAGATCTATTAAAAGTGTTTTAAATGGA  
 AAATGTACTCTAGACCACAGGACTAATGTAAATTAATATACAGTCATTCAATTATTTGTTGAAGTTGATAGAATTT  
 TTGAAGTGTAACCTTGTGTCTGAATGTTTTATTTGTTCTTTAGCTGAAGTTTTGCAATTTTTATGTCAAAAATTCA  
 ATTGCTATTAAACAAGTTGAGATCCAGTTATAAATTAACCTTGTTTTTAGTAGATGACATTTATTTCAATAAAAG  
 TTGCAAAATCGGGCTTAATCTTAAATTTGGTGGTCATTTCAATGGTTGACATATTTGGCTATTTATTAACCTCTCT  
 TTCATATTCTAAAATTCATTTTCCCCTTATGGATATTTATGGTAGTTTGTTAAGAAGTATAAATTGTGCCAAGG  
 AAGCCAAAAGGGAAGACAGATGGATTTGTTTTAAATGTTTATGTGAGCTAGTAAATGTGGGAAAAAAAAAAAAA  
 AAAAAAAAAAAAAAAAAA

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**FIGURE 415**

MAAAEELSLEKSLGLSKGNKYSAQGERQIPVLQTNNGPSLTGLTTIAAHLVKQANKEYLLGSTAEKAIVQOWL  
EYRVTQVDGHSSKNDIHTLLKDLNSYLEDKVYLTGYNFTLADILLYYGLHRFIVDLTVQEKEKYLNVSRWFCHIQ  
HYPGIRQHLSSVVFIGNRLYTNSH

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**FIGURE 416**

CCGGGACTTTGCAGGCAGCGGCGGCCGGGGCGGAGCGGGATCGAGCCCTCGCCGAGGCCTGCCGCCATGGGGCC  
GCGCCGCCGCGCCGCCCTGTACCCGGGCCGCGCGGGCCGTGAGCGTCA**ATGC**CTTGCCCGGGGCCCTGCGGGC  
GGCCCATGCGCGCCGGCGCTGGAGGCCCTGCTCGGGGCCGGCGCGCTGCGGCTGCTCGACTCCTCGCAGATCGTC  
ATCATCTCCGCCGCGCAGGACGCCAGCGCCCCGCGGCTCCACCGGCCCCGCGGCGCCCGCCGGCCCCCTGC  
GACCCTGACCTGCTGCTCTTCGCCACACCGCAGGCGCCCCGGCCACACCCAGTGCGCCGCGGCCCGCGCTCGG  
CGCCCGCCGGTGAAGCGGAGGCTGGACCTGGAACTGACCATCAGTACCTGGCCGAGAGCAGTGGGCCAGCTCGG  
GGCAGAGGCCGCCATCCAGGAAAAGGTGTGAAATCCCCGGGGGAGAAGTCACGCTATGAGACCTCACTGAATCTG  
ACCACCAAGCGCTTCTTGAGCTGCTGAGCCACTCGGCTGACGGTGTCTGTCGACCTGAACTGGGCTGCCGAGGTG  
CTGAAGGTGCAGAAGCGGCGCATCTATGACATACCAACGTCTTGAGGGCATCCAGCTCATTGCCAAGAAGTCC  
AAGAACCACATCCAGTGGCTGGGCAGCCACACCACAGTGGGCGTCGGCGGACGGCTTGAGGGGTTGACCCAGGAC  
CTCCGACAGCTGCAGGAGAGCGAGCAGCAGCTGGACCACCTGATGAATATCTGTACTACGCAGCTGCGCCTGCTC  
TCCGAGGACACTGCAGGCCAGCGCTGGCCTACGTGACGTGTCAGGACCTTCGTAGCATTGCAGACCCTGCAGAG  
CAGATGGTTATGGTGATCAAAGCCCCCTCTGAGACCCAGCTCCAAGCCGTGGACTCTTCGGAGAACTTTCAGATC  
TCCCTTAAGAGCAAACAAGGCCGATCGATGTTTTCTGTGCCCTGAGGAGACCGTAGGTGGGATCAGCCCTGGG  
AAGACCCCATCCAGGAGGTCACTTCTGAGGAGGAGAACAGGGCCACTGACTCTGCCACCATAGTGTACACCA  
CCATCATCTCCCCCTCATCCCTACCACAGATCCAGCCAGTCTCTACTCAGCCTGGAGCAAGAACCCTGTTG  
TCCCGGATGGGCAGCCTGCGGGCTCCCGTGGACGAGGACCGCTGTCCCGCTGGTGGCGGCCGACTCGCTCCTG  
GAGCATGTGCGGGAGGACTTCTCCGGCCTCCTCCCTGAGGAGTTCATCAGCCTTCCCCACCCACGAGGCCCTC  
GACTACCCTTCGGCTCGAGGAGGGCGAGGGCATCAGAGACCTCTTCGACTGTGACTTTGGGGACCTCACCCCC  
CTGGATTTCT**GA**CAGGGCTTGAGGGACCAGGGTTTCCAGAGTAGCTCACCTTGTCTCTGCAGCCCTGGAGCCCC  
CTGTCCCTGGCGCTCCTCCAGCCTGTTTGAAACATTTAATTTATACCCCTCTCCTCTGTCTCCAGAAGCTTCT  
AGCTCTGGGGTCTGGCTACCGCTAGGAGGCTGAGCAAGCCAGGAAGGGAAGGAGTCTGTGTGGTGTGTATGTGCA  
TGCAGCCTACACCCACACGTGTGTACCGGGGGTGAATGTGTGTGAGCATGTGTGTGTGCATGTACCGGGGAATGA  
AGGTGAACATACACCTCTGTGTGTGCACTGCAGACACGCCCCAGTGTGTCCACATGTGTGTGCATGAGTCCATCT  
CTGCGCGTGGGGGGCTCTAACTGCACCTTTCGGCCCTTTTGCTCGTGGGGTCCCACAAGGCCAGGGCAGTGCCT  
GCTCCCAGAATCTGGTGTCTGACCAGGCCAGGTGGGGAGGCTTTGGCTGGCTGGGCGTGTAGGACGGTGAGAGC  
ACTTCTGTCTTAAAGTTTTTCTGATTGAAGCTTTAATGGAGCGTTATTTATTTATCGAGGCCTCTTTGGTGAG  
CCTGGGGAATCAGCAAAAGGGGAGGAGGGGTGTGGGTTGATACCCCAACTCCCTCTACCCTTGAGCAAGGGCAG  
GGGTCCCTGAGCTGTTCTTCTGCCCCATACTGAAGGAAGTGGGCTGGGTGATTTATTTATTGGGAAAGTGAGG  
GAGGGAGACAGACTGACTGACAGCCATGGGTGGTCAGATGGTGGGGTGGGCCCTCTCCAGGGGGCCAGTTCAGGG  
CCCAGCTGCCCCCAGGATGGATATGAGATGGGAGAGGTGAGTGGGGGACCTTCACTGATGTGGGCAGGAGGGT  
GGTGAAGGCCTCCCCAGCCAGACCTGTGGTCCCTCCTGCAGTGTCTGAAGCGCTGCCTCCCCACTGCTCTG  
CCCCACCTCCAATCTGCACCTTGATTGTCTTCTAACAGCTCTGTTCCCTCTGCTTTGGTTTTAATAAATATT  
TTGATGACGTT

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**FIGURE 417**

MALAGAPAGGFCAPALEALLGAGALRLLDSSQIVIIISAAQDASAPPAPTGPAAPAAGPCDPDLLLLFATPQAPRPT  
PSAPRPALGRPPVKRRRLDLETDHQYLAESSGPARGRGRHPGKGVKSPGEKSRYETSLNLTTRFLELLSHSADGV  
VDLNWAAEVLKVQKRRIYDITNVLEGIQLIAKKSKNHIQWLGSHTTVGVGGRLEGLTQDLRQLQESEQQLDHLMN  
ICTTQLRLLSEDTDSQRLAYVTCQDLRSIADPAEQMVMVIKAPPETQLQAVDSSENFQISLKSQGPIDVFLCPE  
ETVGGISPGKTPSQEVTSEENRATDSATIVSPPPSSPPSSLTTDPSQSLLSLEQEPLLSRMGSLRAPVDEDRLS  
PLVAADSLLEHVREDFSGLLPEEFISLSPHEALDYHFGLEEGERDLFDCDFGDLTPLDF

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**FIGURE 418**

CCTTGCTATAGAAGACCTGGGACAGAGGACTGCTGTCTGCCCTCTCTGGTCACCCCTGCCTAGCTAGAGGATCTGT  
GACCCAGCCATGAGGACCCCTGCCATCCTTGCTGCCATTCTCCTGGTGGCCCTGCAGGCCCAGGCTGAGCCACT  
CCAGGCAAGAGCTGATGAGGTTGCTGCAGCCCCGGAGCAGATTGCAGCGGACATCCCAGAAGTGGTTGTTTCCCT  
TGCATGGGACGAAAGCTTGGCTCCAAAGCATCCAGGCTCAAGGAAAAACATGGACTGCTATTGCAGAATACCAGC  
GTGCATTGCAGGAGAACGTCGCTATGGAACCTGCATCTACCAGGGAAGACTCTGGGCATTCTGCTGCTTGAGCTTG  
CAGAAAAAGAAAAATGAGCTCAAAATTTGCTTTGAGAGCTACAGGGAATTGCTATTACTCCTGTACCTTCTGCTC  
AATTTCTTTCTCATCTCAAATAAATGCCTTGTTAC

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**FIGURE 419**

MRTLAILAAILLVALQAQAEPLQARADEVAAAPEQIAAD IPEVVVSLAWDESLAPKHGSRKNMDCYCRIPACIA  
GERRYGTCTIYQGRLWAFCC

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**FIGURE 420**

AGCGGGTGC GGGGCGGGACCGGCCCGGCCTATATATTGGGTTGGCGCCGGCGCCAGCTGAGCCGAGCGGTAGCTG  
GTCTGGCGAGGTTTTATACACCTGAAAGAAGAGAATGTC AAGACGAAGTAGCCGTTTACAAGCTAAGCAGCAGCC  
CCAGCCCAGCCAGACGGAATCCCCCAAGAAGCCCAGATAATCCAGGCCAAGAAGAGGAAAACTACCCAGGATGT  
CAAAAAAGAAGAGAGGAGGAGGTCACCAAGAAACATCAGTATGAAATTAGGAATTGTTGGCCACCTGTATTATCTGG  
GGGGATCAGTCCTTGCATTATCATTGAAACACCTCACAAAGAAATAGGAACAAGTGATTCTCCAGATTTACAAA  
TTACAGATTTA AAAATCTTTTTATTAATCCTTCACCTTTGCCTGATTTAAGCTGGGGATGTTCAAAAGAAGTCTG  
GCTAAACATGTTAAAAAAGGAGAGCAGATATGTTTCATGACAAACATTTTGAAGTTCTGCATTCTGACTTGGGAACC  
ACAGATGAGGTCCATACTTCTAGACTGGCTTTTAGAGGTATGTGAAGTATACACACTTCATAGGGAAACATTTTA  
TCTTGCACAAGACTTTTTTGTATAGATTTATGTTGACACAAAAGGATATAAAATAAAAAATATGCTTCAACTCATTGG  
AATTACCTCATTATTTCATTGCTTCCAACTTGAGGAAATCTATGCTCCTAAACTCCAAGAGTTTGCTTACGTCAC  
TGATGGTGCTTGCAGTGAAGAGGATATCTTAAGGATGGAACCTCATTATATTAAGGCTTTAAATGGGAACCTTG  
TCCTGTAACAATCATCTCCTGGCTAAATCTCTTTCTCCAAGTTGATGCTCTTAAAGATGCTCCTAAAGTTCTTCT  
ACCTCAGTATTCTCAGGAAACATTCATTCAAATAGCTCAGCTTTTAGATCTGTGTATTCTAGCCATTGATTTCATT  
AGAGTTCCAGTACAGAATACTGACTGCTGCTGCCTTGTGCCATTTTACCTCCATTGAAGTGGTTAAGAAAGCCTC  
AGGTTTGGAGTGGGACAGTATTTTCAAGATGTGTAGATTGGATGGTACCTTTTGTCAATGTAGTAAAAAGTACTAG  
TCCAGTGAAGCTGAAGACTTTTAAGAAGATTCTATGGAAGACAGACATAATATCCAGACACATACAACTATTT  
GGCTATGCTGGAGGAAGTAAATTACATAAACACCTTCAGAAAAGGGGGACAGTTGTCACCAGTGTGCAATGGAGG  
CATTATGACACCACCGAAGAGCACTGAAAAACCACCAGGAAAACACTAAAGAAGATAACTAAGCAAACAAGTTGG  
AATTCACCAAGATTGGGTAGAAGTGGTATCACTGAAGTACTAAAGTTTACAGAAAGTAGTGTGTGATTGATTG  
CCCTAGCCAATTACAAAGTTACACTGCCATTCTGATTTTAAACTTACAATTGGCACTAAAGAATACATTTAATT  
ATTTCTATGTTAGCTGTTAAAGAAACAGCAGGACTTGTTTACAAAGATGTCTTCATTCCCAAGTTTACTGGATA  
GAAGCCAACCACAGTCTATACCATAGCAATGTTTTCTTTAATCCAGTGTTACTGTGTTTATCTTGATAAACTA  
GGAATTTTGTCACTGGAGTTTGGACTGGATAAGTGCTACCTTAAAGGGTATACTAAGTGATACAGTACTTTGAA  
TCTAGTTGTTAGATTCTCAAAATTCCTACACTCTTGACTAGTGCAATTTGGTTCTTGAAAATTAAATTTAACTT  
GTTTACAAAGGTTTAGTTTTGTAATAAGGTGACTAATTTATCTATAGCTGCTATAGCAAGCTATTATAAACTTG  
AATTTCTACAAATGGTGAAATTTAATGTTTTTTAACTAGTTTATTTGCCTTGCCATAACACATTTTTTAACTAA  
TAAGGCTTAGATGAACATGGTGTTCAACCTGTGCTCTAAACAGTGGGAGTACCAAAGAAATTATAAACAAGATAA  
ATGCTGTGGCTCCTTCCTAACTGGGGCTTTCTTGACATGTAGGTTGCTTGGAATAACCTTTTTGTATATCACAA  
TTTGGGTGAAAACTTAAGTACCCTTTCAAACATTTTATATGAGGAAGTCACTTTACTACTCTAAGATATCCCTA  
AGGAATTTTTTTTTTAAATTTAGTGTGACTAAGGCTTTATTTATGTTTGTGAACTGTTAAGGTCCTTTCTAAAT  
TCCTCCATTGTGAGATAAGGACAGTGTCAAAGTGATAAAGCTTAACACTTGACCTAACTTCTATTTTCTTAAGG  
AAGAAGAGTATTAAATATATACTGACTCCTAGAAATCTATTTATTA AAAAAAGACATGAAAACCTTGCTGTACATA  
GGCTAGCTATTTCTAAATATTTTAAATTAGCTTTTCTAAAAAAAATCCAGCCTCATAAAGTAGATTAGAAAAC  
TAGATTGCTAGTTTATTTTGTATCAGATATGTGAATCTCTTCTCCCTTTGAAGAACTATACATTTATTGTTAC  
GGTATGAAGTCTTCTGTATAGTTTGTTTTTAACTAATATTTGTTTCAGTATTTTGTCTGAAAAGAAAACACCAC  
TAATTGTGTACATATGTATTATATAAACTTAACCTTTAATACTGTTTATTTT TAGCCCATTTGTTTAAAAATAA  
AAGTTAAAAAATTTAACTGCTTAAAGTAAAAA AAAAAAAAAAAAAAAAAA

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## FIGURE 421

MSRRSSRLQAKQQPQPSQTESPQEAQIIQAKKRKTTQDVKKRREEVTKKHQYEIRNCWPPVLSSGGISPCIIETP  
HKEIGTSDFSRTNYRFKNLFINPSPLPDLSWGCSKEVWLNMLKKESRYVHDKHFEVLHSDLEPQMRISILLDWLL  
EVCEVYTLHRETFYLAQDFFDRFMLTQKDINKNMLQLIGITSLFIASKLEEIYAPKLQEFAYVTDGACSEEDILR  
MELIILKALKWELCPVTIISWLNLFLOVDALKDAPKVLLPQYSQETFIQIAQLLDLCILADSLEFQYRILTAAA  
LCHFTSIEVVKKASGLEWDSISECVDWMVPFVN VVKSTSPVKLKTFFKIPMEDRHNIQTHTNYLAMLEEVNYINT  
FRKGGQLSPVCNGGIMTPPKSTEKPPGKH



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**FIGURE 422**

AAACTTCCCGCACGCGTTACAGGAGCCAGGTCGGTATAAGCGCCAGCGGCCTCGCCGCCCGTCAAGCTGTCCACA  
TCCCTGGCCTCAGCCCGCCACATCACCCCTGACCTGCTTACGCCAGATTTTCTTCAATCACATCTGAATAAATCA  
CTTGAAGAAAGCTTATAGCTTCATTGCACCATGTGTGGCATTGGGCGCTGTTTGGCAGTGATGATTGCCTTTCT  
GTTCAGTGTCTGAGTGCTATGAAGATTGCACACAGAGGTCCAGATGCATTCCGTTTTGAGAATGTCAATGGATAC  
ACCAACTGCTGCTTTGGATTTCACCGGTTGGCGGTAGTTGACCCGCTGTTTGGAAATGCAGCCAATTCGAGTGAAG  
AAATATCCGTATTTGTGGCTCTGTTACAATGGTGAAATCTACAACCATAAGAAGATGCAACAGCATTTTGAATTT  
GAATACCAGACCAAAGTGGATGGTGAGATAATCCTTCATCTTTATGACAAAGGAGGAATTGAGCAAACAATTTGT  
ATGTTGGATGGTGTGTTTGCATTTGTTTTACTGGATACTGCCAATAAGAAAGTGTTCCCTGGGTAGAGATACATAT  
GGAGTCAGACCTTTGTTTAAAGCAATGACAGAAGATGGATTTTTGGCTGTATGTTTCAAGCTAAAGGTCTTGTT  
ACATTGAAGCACTCCGCGACTCCCTTTTTAAAGTGGAGCCTTTTCTTCTGGACACTATGAAGTTTTGGATTTA  
AAGCCAAATGGCAAAGTTGCATCCGTGGAAATGGTTAAATATCATCACTGTCGGGATGAACCCCTGCACGCCCTC  
TATGACAATGTGGAGAACTCTTTCCAGGTTTTGAGATAGAACTGTGAAGAACAACCTCAGGATCCTTTTTAAT  
AATGCTGTAAAGAAACGTTTGATGACAGACAGAAGGATTGGCTGCCTTTTATCAGGGGGCTTGGACTCCAGCTTG  
GTTGCTGCCACTCTGTTGAAGCAGCTGAAAGAAGCCCAAGTACAGTATCCTCTCCAGACATTTGCAATTGGCATG  
GAAGACAGCCCCGATTTACTGGCTGCTAGAAAGGTGGCAGATCATATTGGAAGTGAACATTATGAAGTCCTTTTT  
AACTCTGAGGAAGGCATTACAGGCTCTGGATGAAGTCATATTTTCTTGGAACTTATGACATTACAACAGTTCGT  
GCTTCAGTAGGTATGTATTTAATTTCCAAGTATATTCGGAAGAACACAGATAGCGTGGTGATCTTCTCTGGAGAA  
GGATCAGATGAACCTACGCAGGGTTACATATATTTTACAAGGCTCCTTCTCCTGAAAAAGCCGAGGAGGAGAGT  
GAGAGGCTTCTGAGGGAACCTCTATTTGTTTGATGTTCTCCGCGCAGATCGAACTACTGCTGCCCATGGTCTTGAA  
CTGAGAGTCCCATTCTAGATCATCGATTTTCTTCTTACTTGTCTCTGCCACCAGAAATGAGAATTCCAAAG  
AATGGGATAGAAAAACATCTCCTGAGAGAGACGTTTGAGGATTCCAATCTGATACCCAAAGAGATTCTCTGGCGA  
CCAAAAGAAGCCTTCAGTGATGGAATAACTTCAGTTAAGAATTCTTGGTTTAAAGATTTTACAGGAATACGTTGAA  
CATCAGGTTGATGATGCAATGATGGCAAATGCAGCCCAGAAATTTCCCTTCAATACTCCTAAAACCAAAGAAGGA  
TATTACTACCGTCAAGTCTTTGAACGCCATTACCCAGGCCGGGCTGACTGGCTGAGCCATTACTGGATGCCCAAG  
TGGATCAATGCCACTGACCCTTCTGCCCCGACGCTGACCCACTACAAGTCAGCTGTCAAAGCTTAGGTGGTCTTT  
ATGCTGTAATGTGAAAGCAAATATTTCTTCGTGTTGGATGGGGACTGTGGGTAGATAGGGGAACAATGAGAGTCA  
ACTCAGGCTAACTTGGGTGTGAAAAAATAAAAGTCCTAAATCT

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**FIGURE 423**

MCGIWALFGSDDCLSVQCLSAMKIAHRGPDAFRFENVNGYTNC CFGHRLAVVDPLFGMQPIRVKKYPYLWLCYN  
GEIYNHKKMQQHFEFEYQTKVDGEIILHLYDKGGIEQTICMLDGVFAFVLDTANKKVFLGRDTYGVRPLFKAMT  
EDGFLAVCSEAKGLVTLKHSATPFLKVEPFLPGHYEVLDPNGKVASVEMVKYHHRDEPLHALYDNVEKLFPG  
FEIETVKNLRLILFNNAVKKRLMTDRRIGCLLSGGLDSSLVAATLLKQLKEAQVQYPLQTFAIGMEDSPDLLAAR  
KVADHIGSEHYEVLFNSEEGIQALDEVIFSLETYDITTVRASVGMYLISKYIRKNTDSVVIFSGEGSDELTQGYI  
YFHKAPSPEKAEESERLLRELYLFDVLRADRTTAAHGLELRVPFLDHRFSSYYLSLPPEMRIPKNGIEKHLRE  
TFEDSNLIPKEILWRPKEAFSDGITSVKNSWFKILQEYVEHQVDDAMMANAAQKFPFNTPKTKEGYYYRQVFERH  
YPGRADWL SHYWMPKWINATDPSARTLTHYKSAVKA

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**FIGURE 424**

GGCACGAGGCAGCAAAATGGCGCCAGAACTAGTGGCGGGCTGAGGACGCCGTACCCCTCGGAAGGCAGCCCTGCG  
 GTCCCTTTGCCGCCCCTTCCCTCCCGGACATGGAGGACGTGGAGGCGCGCTTCGCCACCTCTTGACAGCCCATCC  
 GCGACCTCACCAAGAACTGGGAGGTGGACGTGGCGGCCAGCTGGGCGAGTATCTGGAGGAGCTGGATCAGATCT  
 GCATTTCTTTTACGAAGGCAAGACCACAATGAACTTCATTGAGGCAGCGTTGTTGATCCAGGGCTCTGCCTGCG  
 TCTACAGTAAGAAGGTGGAATACCTCTACTCACTCGTCTACCAGGCCCTTGATTTTCATCTCTGGAAAGAGGCGGG  
 CCAAGCAGCTCTCTTCGGTGCAGGAGGACAGGGCCAATGGGGTTGCCAGCTCCGGGGTCCCCAGGAGGCAGAGA  
 ATGAGTTCCCTGTCGCTGGATGACTTCCCTGACTCCCGGACTAACGTGGATCTCAAGAATGATCAGACGCCCAGTG  
 AGGTCCCTCATCATCCCCCTCCTGCCC**ATGG**CCCTGGTGGCCCCCTGATGAAATGGAGAAGAACAACAATCCCCCTGT  
 ACAGCCGTCAGGGTGAGGTCCTGGCCAGCCGGAAGGATTTAGGATGAACACGTGCGTTCCCCACCCCAGAGGGG  
 CCTTCATGTTGGAGCCAGAGGGCATGTCCCCCATGGAACCAGCGGGCGTTTCCCCCATGCCAGGGACCCAGAAGG  
 ACACCGGGAGGACTGAGGAGCAGCCAATGGAAGTTTCCGTGTGCAGGAGCCCTGTCCCAGCACTCGGCTTCTCCC  
 AGGAGCCAGGCCCTCTCCAGAAGGCCCGATGCCCCCTGGGTGGGGGCGAGGACGAGGATGCAGAGGAGGCAGTAG  
 AGCTTCCTGAGGCCTCGGCCCCCAAGGCCGCTCTGGAGCCCAAGGAGTCCAGGAGCCCGCAGCAGGTGGGACCCA  
 CATGGAGGCCTGCAGAACCTGAGCTGTGAACTGGCAACCCTGGCTCTGGGGCCGAGTCACCTTGACAAGGAGGA  
 CAGTGGTATGGCCTTGGCCCCAGACCACTGGTCTGGGGCAGAAGCCCACCTGTCTTGACAGCCGTCCTGCAACCA  
 GCCCTTTTGAAGAGCAGCTTCTGTGTTCCCTCCCTCTCTGAGCAGAACTGATGCTCCTCAGAGTAGTGGGCTGGC  
 GTCCAAGGATTTGAGCCCTGTCGAGCTCACGGCAACCTGGGATGGCCGCCGTTGCCAAGGCGCCTCTCTGCAGT  
 CGGGCTGGTAGGAGGGAGTGTCTGGAGGCCATTGCTGCCTCCCTCAACCCCCGGGGTCAACTGTACCCAGCCTAG  
 AGCCAAGAAATCCTTCCTTTTTATTATTAACAAAATCAACCTGAAAAAAAAAAAAAAAAAAAA

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**FIGURE 425**

MALVAPDEMEKINNPLYSRQGEVLASRKDFRMNTCVPHPRRAFMLEPEGMSMPMEPAGVSPMPGTQNDTGRTEEQP  
MEVSVC RSPVPALGFSQEPGSPERPMPLGGGEDEDAEEAVELPEASAPKAALEPKESRSPQQSAALPRRYMLRE  
REGAPEPASCVKETPDLWQSLDPLNSLESKPFFKKGRPYSVPPC VEEALGQKRKRKGA AKLQDFHQWYLVAYADHA  
DSRRLRRKGPSFADMEVLYWTHVKEQLETLRKLQRREVAEQWLRPAEEDHLEDSPGRPGGSR

## FIGURE 426

TTGGAACCAGAGAGAAGCCGGGATGGAACTCCAAACACCACAGAGGACTATGACACGACCACAGAGTTTGACTA  
TGGGGATGCAACTCCGTGCCAGAAGGTGAACGAGAGGGCCTTTGGGGCCCAACTGCTGCCCCCTCTGTACTCCTT  
GGTATTTGTCAATTGGCCTGGTTGGAAACATCCTGGTGGTCCTGGTCCCTGTGCAATACAAGAGGCTAAAAACAT  
GACCAGCATCTACCTCCTGAACCTGGCCATTTCTGACCTGCTCTTCTGTTCACGCTTCCCTTCTGGATCGACTA  
CAAGTTGAAGGATGACTGGGTTTTTGGTGATGCCATGTGTAAGATCCTCTCTGGGTTTTATTACACAGGCTTGTA  
CAGCGAGATCTTTTTTCATCATCCTGCTGACGATTGACAGGTACCTGGCCATCGTCCACGCCGTGTTTGCCTTGCG  
GGCACGGACCGTCACTTTTGGTGTCATCACCAGCATCATATTTGGGGCCCTGGCCATCTTGGCTTCCATGCCAGG  
CTTATACTTTTCCAAGACCCAATGGGAATTACTCACCACACCTGCAGCCTTCACTTTCCTCACGAAAGCCTACG  
AGAGTGAAGCTGTTTCAGGCTCTGAACTGAACCTCTTTGGGCTGGTATTGCCTTTGTTGGTCATGATCATCTG  
CTACACAGGGATTATAAAGATTCTGCTAAGACGACCAAATGAGAAGAAATCCAAAGCTGTCCGTTTGATTTTTGT  
CATCATGATCATCTTTTTTCTCTTTTGGACCCCTACAATTTGACTATACTTATTTCTGTTTTCCAAGACTTCCT  
GTTACCCCATGAGTGTGAGCAGAGCAGACATTTGGACCTGGCTGTGCAAGTGACGGAGGTGATCGCCTACACGCA  
CTGCTGTGTCAACCCAGTGATCTACGCCTTCGTTGGTGAGAGGTTCCGGAAGTACCTGCGGCAGTTGTTCCACAG  
GCGTGTGGCTGTGCACCTGGTTAAATGGCTCCCCCTTCTCTCCGTGGACAGGCTGGACAGGGTCAGCTCCACATC  
TCCCTCCACAGGGGAGCATGAACCTCTCTGCTGGGTTCTGACTCAGACCATAGGAGGCCAACCCAAAATAAGCAGG  
CGTGACCTGCCAGGCACACTGAGCCAGCAGCCTGGCTCTCCAGCCAGGTTCTGACTCTTGGCACAGCATGGAGT  
CACAGCCACTTGGGATAGAGAGGGAATGTAATGGTGGCCTGGGGCTTCTGAGGCTTCTGGGGCTTCAGTCTTTTC  
CATGAACTTCTCCCCCTGGTAGAAAGAAGATGAATGAGCAAAACCAAATATTCCAGAGACTGGGACTAATGTACCA  
GAGAAGGGCTTGGACTCAAGCAAGATTTTCAAGATTTGTGACCATTAGCATTTGTCAACAAAGTCACCCACTTCCCA  
CTATTGCTTGACAAAACCAATTAACCCAGTAGTGGTGACTGTGGGCTCCATTCAAAGTGAGCTCCTAAGCCATG  
GGAGACACTGATGTATGAGGAATTTCTGTTCTTCCATCACCTCCCCCCCCCGCCACCCTCCCACTGCCAAAGAA  
CTTGGAAATAGTGATTTCACAGTGACTCCACTCTGAGTCCAGAGCCAATCAGTAGCCAGCATCTGCCTCCCCCT  
TCACTCCCACCGCAGATTTGGGCTCTTGGAAATCCTGGGGAACATAGAACTCATGACGGAAGAGTTGAGACCTAAC  
GAGAAATAGAAATGGGGAACACTGCTGGCAGTGGAATAAGAAAGCCCTTAGGAAGAATTTTTATATCCACTAA  
AATCAAACAATTCAGGGAGTGGGCTAAGCACGGGCCATATGAATAACATGGTGTGCTTCTTAAAATAGCCATAAA  
GGGGAGGGACTCATCTTTCCATTTACCCTTCTTTTCTGACTATTTTTCAGAATCTCTCTTCTTTTCAAGTTGGG  
TGATATGTTGGTAGATTCTAATGGCTTTATTGCAGCGGTTAATAACAGGCAAAAGGAAGCAGGGTTGGTTTCCCT  
TCTTTTGTCTTTCATCTAAGCCTTCTGGTTTTATGGGTCAGAGTCCGACTGCCATCTTGGACTTGTGACGAAA  
AAAAATAATAATAATAATAAAGGCCTGCTGTGTAAGCTGACAGTATTTGTAGCTGATAGGGGGTTGGGAGGA  
AGTGTCTACTAGGAGGGTGGGTGAGATCTGTGTTGATGT

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**FIGURE 427**

METPNTTEDYDTTTEFDYGDATPCQKVNERAFGAQLLPPLYSLVFVIGLVGNILVVLVLVQYKRLKNMTSIYLLN  
LAISDLLFLFTLPFWIDYKLKDDWVFGDAMCKILSGFYTGlySEIFFIILLTIDRYLAIVHAVFALRARTVTFG  
VITSIIWALAILASMPGLYFSKTQWEFTHHTCSLHFPHESLREWKLQALKNLFGVLPLLVMIICYTGIKI  
LLRRPNEKKSKAVRLIFVIMIFFLFWTPYNLTILISVFQDFLFTHECEQSRHLDLAVQVTEVIAYTHCCVNPVI  
YAFVGERFRKYLRQLFHRRVAVHLVKWLPFLSVDRLDRVSSTSPSTGEHELSAGF

## FIGURE 428

GGCACGAGCCCAGAAACAAAGACTTCACGGACAAAGTCCCTTGGAACCAGAGAGAAGCCGGGATGGAAACTCCAA  
ACACCACAGAGGACTATGACACGACCACAGAGTTTGACTATGGGGATGCAACTCCGTGCCAGAAGGTGAACGAGA  
GGGCCTTTGGGGCCCAACTGCTGCCCCCTCTGTACTCCTTGGTATTTGTCATTGGCCTGGTTGGAAACATCCTGG  
TGGTCTGGTCTTGTGCAATACAAGAGGCTAAAAACATGACCAGCATCTACCTCCTGAACCTGGCCATTTCTG  
ACCTGCTCTTCTGTTCACGCTTCCCTTCTGGATCGACTACAAGTTGAAGGATGACTGGGTTTTTGGTGATGCCA  
TGTGTAAGATCCTCTCTGGGTTTTATTACACAGGCTTGTACAGCGAGATCTTTTTCATCATCCTGCTGACGATTG  
ACAGGTACCTGGCCATCGTCCACGCCGTGTTTGCTTGCGGGCACGGACCGTCACTTTTGGTGTCATCACCAGCA  
TCATCATTTGGGGCCCTGGCCATCTTGGCTTCCATGCCAGGCTTATACTTTTCCAAGACCCAATGGGAATTCACCTC  
ACCACACCTGCAGCCTTCACTTTCTCAGAAAGCCTACGAGAGTGGAAGCTGTTTCAGGCTCTGAAACTGAACC  
TCTTTGGGCTGGTATTGCCCTTTGTTGGTCATGATCATCTGCTACACAGGGATTATAAAGATTCTGCTAAGACGAC  
CAAATGAGAAGAAATCCAAAGCTGTCCGTTTGATTTTTGTCATCATGATCATCTTTTTTCTCTTTTGGACCCCT  
ACAATTTGACTATACTTATTTCTGTTTTCCAAGACTTCTGTTCACCCATGAGTGTGAGCAGAGCAGACATTTGG  
ACCTGGCTGTGCAAGTGACGGAGGTGATCGCTACACGCACTGCTGTGTCAACCCAGTGATCTACGCCTTCGTTG  
GTGAGAGGTTCCGGAAGTACCTGCGGCAGTTGTTCCACAGGCGTGTGGCTGTGCACCTGGTTAAATGGCTCCCT  
TCCTCTCCGTGGACAGGCTGGAGAGGGTCAGCTCCACATCTCCCTCCACAGGGGAGCATGAACTCTCTGCTGGGT  
TCTGACTCAGACCATAGGAGGCCAACCCAAAATAAGCAGGCGTGACCTGCCAGGCACACTGAGCCAGCAGCCTGG  
CTCTCCAGCCAGGTTCTGACTCTTGGCACAGCATGGAGTCACAGCCACTTGGGATAGAGAGGGAATGTAATGGT  
GGCCTGGGGCTTCTGAGGCTTCTGGGGCTTCACTCTTTTCCATGAACTTCTCCCTGGTAGAAAGAAGATGAATG  
AGCAAAACCAATATTCCAGAGACTGGGACTAAGTGTACCAGAGAAGGGCTTGGACTCAAGCAAGATTTAGATT  
TGTGACCATTAGCATTGTCAACAAAGTCACCCACTTCCCACTATTGCTTGCACAAACCAATTAAACCCAGTAGT  
GGTGACTGTGGGCTCCATTCAAAGTGAGCTCCTAAGCCATGGGAGACACTGATGTATGAGGAATTTCTGTTCTTC  
CATCACCTCCCCCCCCCGCCACCCTCCCACTGCCAAGAACTTGGAAATAGTGATTTCCACAGTGACTCCACTCT  
GAGTCCCAGAGCCAATCAGTAGCCAGCATCTGCCTCCCCCTTCACTCCCACCGCAGGATTTGGGCTCTTGGAAATCC  
TGGGGAACATAGAACTCATGACGGAAGAGTTGAGACCTAACGAGAAATAGAAATGGGGGAACACTGCTGGCAGT  
GGAATAAGAAAGCCCTTAGGAAGAATTTTTATATCCACTAAAATCAAACAATTCAGGGAGTGGGCTAAGCACGG  
GCCATATGAATAACATGGTGTGCTTCTTAAAATAGCCATAAAGGGGAGGGACTCATCATTTCCATTTACCCTTCT  
TTTCTGACTATTTTTCAGAACTCTCTTCTTTTCAAGTTGGGTGATATGTTGGTAGATTCTAATGGCTTTATTGC  
AGCGATTAATAACAGGCAAAAGGAAGCAGGGTTGGTTTCCCTTCTTTTGTCTTTCATCTAAGCCTTCTGGTTTT  
ATGGGTCAGAGTTCCGACTGCCATCTTGGACTTGTCAGCAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 429**

METPNNTEDYDTTTEFDYGDATPCQKVNERAFGAQLLPPLYSLVFVIGLVGNILVVLVLVQYKRLKNMTSIYLLN  
LAISDLLFLFTLPFWIDYKLKDDWVFGDAMCKILSGFYTGlySEIFFIILLTIDRYLAIVHAVFALRARTVTFG  
VITSIIWALAILASMPGLYFSKTQWEFTHTCSLHFPHESLREWKLfQALKLNLFGLVLPLLVMiICYTGIiKI  
LLRRPNEKKSKAVRLIFVIMIIFFLFWTPYNLTILISVFQDFLFTHECEQSRHLDLAVQVTEVIAYTHCCVNPVI  
YAFVGERFRKYLRQLFHRRVAVHLVKWLPFLSVDRLERVSSTSPSTGEHELSAGF



**FIGURE 430**

AAGGACACGGGCAGCAGACAGTGGTCAGTCCTTTCTTGGCTCTGCTGACACTCGAGCCACATTCCGTCACCTGC  
TCAGAATC**ATG**CAGGTCTCCACTGCTGCCCTTGCTGTCCTCCTCTGCACCATGGCTCTCTGCAACCAGTTCTCTG  
CATCACTTGCTGCTGACACGCCGACCGCTGCTGCTTCAGCTACACCTCCCGGCAGATTCCACAGAATTCATAG  
CTGACTACTTTGAGACGAGCAGCCAGTGCTCCAAGCCCGGTGTCATCTTCCTAACCAAGCGAAGCCGGCAGGTCT  
GTGCTGACCCCACTGAGGAGTGGGTCCAGAAATATGTCAGCGACCTAGAGCTGAGTGCC**TG**AGGGGTCCAGAAGC  
TTCGAGGCCCAGCGACCTCGGTGGGCCAGTGGGGAGGAGCAGGAGCCTGAGCCTTGGGAAACATGCGTGTGACCT  
CCACAGCTACCTCTTCTATGGACTGGTTGTTGCCAAACAGCCACACTGTGGGACTCTTCTTAACTTAAATTTAA  
TTTATTTATACTATTTAGTTTTTGTAATTTATTTTCGATTTACAGTGTGTTTGIGATTGTTTGCTCTGAGAGTT  
CCCCTGTCCCTCCCCCTTCCCTCACACCGCGTCTGGTGACAACCGAGTGGCTGTCATCAGCCTGTGTAGGCAGT  
CATGGCACCAAAGCCACCAGACTGACAAATGTGTATCGGATGCTTTTGTTTCAGGGCTGTGATCGGCCTGGGGAAA  
TAATAAAGCACGCTCTTTTAAAGGT

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**FIGURE 431**

MQVSTAALAVLLCTMALCNQFSASLAADTPTACCFSYTSRQIPQNFADYFETSSQCSKPGVIFLTRSRQVCAD  
PSEEWQKYVSDLELSA

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**FIGURE 432**

GCTACACTAGAGCAGAGTACGAGTCTGAGGCGGAGGGAGTAATGCCAGGACAAGCGTTTAGAAAGTTTCTTCCAC  
TCTTTGACCGAGTATTGGTTGAAAGGAGTGCTGCTGAAACTGTAACCAAAGGAGGCATTATGCTTCCAGAAAAAT  
CTCAAGGAAAAGTATTGCAAGCAACAGTAGTCGCTGTTGGATCGGGTTCTAAAGGAAAGGGTGGAGAGATTCAAC  
CAGTTAGCGTGAAAAGTTGGAGATAAAGTTCTTCTCCCAGAATATGGAGGCACCAAAGTAGTTCTAGATGACAAGG  
ATTATTTCCATTTTAGAGATGGTGACATTCTTGGAAAGTACGTAGACTTGAAATAAGTCACTATTGAAATGGCATC  
AACATGATGCTGCCCATTCCACTGAAGTTCTGAAATCTTTTCGTCATGTAAATAATTTCCATATTTCTCTTTTATA  
ATAAACTAATGATACTAATGACATCCAGTGTCTCCAAAATTGTTTCCTTGTACTGATATAAACACTTCCAAATA  
AAAATATGTAAAT

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**FIGURE 433**

MAGQAFRKFLPLFDRVLVERSAAEVTKGGIMLPEKSQGKVLQATVVAVGSGSKGKGGEIQPVSVKVGDKVLLPE  
YGGTKVVLDDKDYFLFRDGDILGKYVD

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**FIGURE 434**

CTCCGCTGCTGTCGCCAGGAGTCACTTCACGAGAAGCCAGGTCACAACCGTCGGCCCTTGTCTGGAAAAGTAAAA  
GTGGATCCTGCCACGTTTCGGAGCTCCCTGGCGCCTCGCCCGGCTGGAGCTAGAGAACTCGTCCTGTGGCGGCCCC  
CGGCGTGGGGCGGGACAGCGGCCCCCTGGAGGGGCGAGTCCCGGGAGAACCTGCGGCGGCCGGAGCGGTAAAAAT  
AAGTGACTAAAGAAGCAGACCTGGGAATCACCTAAC**ATG**TCGAGGAGGAGATTTGATTGCCGAAGTATTTTCAGGC  
CTACTAACTACAACCTCCTCAAATCCAATAAAAAATGGAAAACCTTAATAATTTCTATATACTTACATCTAAAGAG  
CTAGGGAGAGGAAAATTTGCTGTGGTTAGACAATGTATATCAAAATCTACTGGCCAAGAATATGCTGCAAAATTT  
CTAAAAAGAGAAGAAGAGGACAGGATTGTCGGGCAGAAATTTACACGAGATTGCTGTGCTTGAATTGGCAAAG  
TCTTGTCCTCCGCTGTTATTAATCTTCATGAGGTCTATGAAAATACAAGTGAAATCATTTTGATATTGGAATATGCT  
GCAGGTGGAGAAAATTTTCAGCCTGTGTTTACCTGAGTTGGCTGAAATGGTTTCTGAAAATGATGTTATCAGACTC  
ATTAACAAAATACTTGAAGGAGTTTATTATCTACATCAGAATAACATTGTACACCTTGATTTAAAGCCACAGAAT  
ATATTACTGAGCAGCATATACCCTCTCGGGGACATTAAAAATAGTAGATTTTGGAATGTCTCGAAAAATAGGGCAT  
GCGTGTGAACTTCGGGAAATCATGGGAACACCAGAATATTTAGCTCCAGAAATCCTGAACTATGATCCCATACC  
ACAGCAACAGATATGTGGAATATTGGTATAATAGCATATATGTTGTTAACTCACACATCACCATTTGTGGGAGAA  
GATAATCAAGAAACATACCTCAATATTTCTCAAGTTAATGTAGATTATTCGGAAGAACTTTTTTCATCAGTTTCA  
CAGCTGGCCACAGACTTTATTTCAGAGCCTTTTAGTAAAAAATCCAGAGAAAAGACCAACAGCAGAGATATGCCTT  
TCTCATTCTTGGCTACAGCAGTGGGACTTTGAAAACCTGTTTCACCCTGAAGAACTTCCAGTTCCTCTCAAAC  
CAGGATCATTCTGTAAGGTCCTCTGAAGACAAGACTTCTAAATCCTCCTGTAATGGAACCTGTGGTGATAGAGAA  
GACAAAGAGAATATCCCAGAGGATAGCAGCATGGTTTCCAAAAGATTCGTTTCGATGACTCATTACCCAATCCC  
CATGAACTTGTTTCAGATTTGCTCTGT**TAG**CACTTTTTTCTTTGACTCATTGGAAGTGAATTTGAAATTTTATAT  
CCACTCCAGTGAGATTATGATTTGTAGCTTCATATATGACATGTTTATATTGTAAATGCACTTTTCCATGGAATA  
ATTTAGGGAAGTGTTTTAATGTAAATTACTAGTTGCTAGCATGTTATGATTTTCATATCCTGAGATAGCTCTGCA  
GATAAGAAAATATTTAAATATATGACAAAAAGTAAAATTGTACATGTGAAAG

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**FIGURE 435**

MSRRRFDCRSISGLLTTPQIPKMFNFNFYILTSKELGRGKFAVVRQCISKSTGQEYAAKFLKKRRRGQDCRA  
EILHEIAVLELAKSCPRVINLHEVYENTSEIILILEYAAGGEIFSLCLPELAEMVSENDVIRLIKQILEGVYYLH  
QNNIVHLDLKPQNILLSSYPLGDIKIVDFGMSRKIGHACELREIMGTPEYLAPEILNYDPITTATDMWNIGIIA  
YMLLTHTSPFVGEDNQETYNISQVNVYSEETFSSVSQLATDFIQSLLVKNPEKRPTAEICLSHSHWLQQWDFEN  
LFHPEETSSSSQTQDHSVRSSDKTSKSSCNGTCGDREDKENIPEDSSMVSKRFRFDDSLPNPHELVSDLLC

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**FIGURE 436**

TAACTGAGCGAGGAGCAATTGATTAATAGCTCGGCGAGGGGACTCACTGACTGTTATAATAACACTACACCAGCA  
ACTCCTGGCTTCCCAGCAGCCGGAACACAGACAGGAGAGAGTCAGTGGCAAATAGACATTTTTCTTATTTCTTAA  
AAAACAGCAACTTGTTTGCTACTTTTATTTCTGTTGATTTTTTTTTCTTGGTGTGTGTGGTGGTTGTTTTTAAGT  
GTGGAGGGGCAAAAGGAGATACCATCCCAGGCTCAGTCCAACCCCTCTCCAAAACGGCTTTTCTGACACTCCAGGT  
AGCGAGGGAGTTGGGTCTCCAGGTTGTGCGAGGAGCAAATGATGACCGCCAAGGCCGTAGACAAAATCCCAGTAA  
CTCTCAGTGGTTTTGTGCACCAGCTGTCTGACAACATCTACCCGGTGGAGGACCTCGCCGCCACGTCGGTGACCA  
TCTTTCCCAATGCCGAAGTGGGAGGCCCTTTGACCAGATGAACGGAGTGGCCGGAGATGGCATGATCAACATTG  
ACATGACTGGAGAGAAGAGGTCGTTGGATCTCCCATATCCCAGCAGCTTTGCTCCCGTCTCTGCACCTAGAAACC  
AGACCTTCACTTACATGGGCAAGTTCTCCATTGACCCTCAGTACCCTGGTGCCAGCTGCTACCCAGAAGGCATAA  
TCAATATTGTGAGTGCAGGCATCTTGCAAGGGGTCACTTCCCCAGCTTCAACCACAGCCTCATCCAGCGTCACCT  
CTGCCTCCCCCAACCCACTGGCCACAGGACCCCTGGGTGTGTGCACCATGTCCCAGACCCAGCCTGACCTGGACC  
ACCTGTACTCTCCGCCACCGCCTCCTCCTCCTTATTCTGGCTGTGCAGGAGACCTCTACCAGGACCCCTTCTGCGT  
TCCTGTGACGAGCCACCACCTCCACCTCTTCTCTCTGGCCTACCCACCACCTCCTTCCTATCCATCCCCAAGC  
CAGCCACGGACCCAGGTCTCTTCCCAATGATCCCAGACTATCCTGGATTCTTTCCATCTCAGTGCCAGAGAGACC  
TACATGGTACAGCTGGCCCAGACCGTAAGCCCTTTCCCTGCCCCTGGACACCCCTGCGGGTGCCCCCTCCACTCA  
CTCCACTCTCTACAATCCGTAACCTTTACCCTGGGGGGCCCCAGTGCTGGGGTGACCGGACCAGGGGGCCAGTGAGG  
GCAGCGAGGGACCCCGGCTGCCTGGTAGCAGCTCAGCAGCAGCAGCAGCCGCCGCCGCCGCCCTATAACCCAC  
ACCACCTGCCACTGCGGCCATTCTGAGGCCTCGCAAGTACCCCAACAGACCCAGCAAGACGCCGGTGACAGAGA  
GGCCCTACCCGTGCCCAGCAGAAGGCTGCGACCGGCGGTTCTCCCGCTCTGACGAGCTGACACGGCACATCCGAA  
TCCACACTGGGCATAAGCCCTTCCAGTGTGCGATCTGCATGCGCAACTTCAGCCGCAGTGACCACCTCACCACCC  
ATATCCGCACCCACACCGGTGAGAAGCCCTTCGCCTGTGACTACTGTGGCCGAAAGTTTGCCCGGAGTGATGAGA  
GGAAGCGCCACACCAAGATCCACCTGAGACAGAAAGAGCGGAAAGCAGTGCCCCCTCTGCATCGGTGCCAGCCC  
CCTCTACAGCCTCCTGCTCTGGGGGCGTGACGCTGGGGGTACCCTGTGCAGCAGTAACAGCAGCAGTCTTGCGG  
GAGGGCCGCTCGCCCCCTTGCTCCTCTCGGACCCGGACACCTTGAGATGAGACTCAGGCTGATACACCAGCTCCCA  
AAGGTCCCGGAGGCCCTTTGTCCACTGGAGCTGCACAACAACTACCACCCTTTCTGTCCCTCTCTCCCTTT  
GTTGGGCAAGGGCTTTGGTGGAGCTAGCACTGCCCCCTTTCCACCTAGAAGCAGGTTCTTCCTAAACTTAGCC  
CATTCTAGTCTCTCTTAGGTGAGTTGACTATCAACCCAAGGCAAAGGGGAGGCTCAGAAGGAGGTGGTGTGGGA  
TCCCCTGGCCAAGAGGGCTGAGGTCTGACCCTGCTTTAAAGGGTTGTTTACTAGGTTTGTACTACCCACTTCCC  
CTTATTTTGACCCATCACAGGTTTTTGACCCTGGATGTGAGAGTTGATCTAAGACGTTTTCTACAATAGGTTGGG  
AGATGCTGATCCCTTCAAGTGGGGACAGCAAAAAGACAAGCAAAAAGTATGTGCACTTTATGGCTTGGGACTGAT  
TTGGGGGACATTGTACAGTGAGTGAAGTATAGCCTTTATGCCACACTCTGTGGCCCTAAAATGGTGAATCAGAGC  
ATATCTAGTTGTCTCAACCCCTGAAGCAATATGTATTATATACTCAGAGAACAGAAGTGCAATGTGATGGGAGGA  
ACGTAGCAATATCTGCTCCTTTTCGAGTTGTTTGAGAAATGTAGGCTATTTTTTCAGTGTATATCCACTCAGATT  
TTGTGTATTTTGTATGTACCCACACTGTTCTCTAAATTCTGAATCTTTGGGAAAAAATGTAAAGCATTATGATC  
TCAGAGGTTAACTTATTTAAGGGGGATGTACATATTCTCTGAAACTAGGATGCATGCAATTGTGTTGGAAGTGTC  
CTTGGTCGCCTTGTGTGATGTAGACAAATGTTACAAGGCTGCATGTAAATGGGTTGCCTTATTATGGAGAAAAAA  
ATCACTCCCTGAGTTTAGTATGGCTGTATATTTATGCCTATTAATATTTGGAATTTTTTTTTAGAAAGTATATTT  
TGTATGCTTTGTTTGTGACTTAAAAGTGTTACCTTTGTAGTCAAATTCAGATAAGAATGTACATAATGTTACC  
GGAGCTGATTTGTTTGGTCATTAGCTCTTAATAGTTGTGAAAAATAAATCTATTCTAACGCAAAACCACTAACT  
GAAGTTCAGATATAATGGATGGTTTGTGACTATAGTGTAATAAATACTTTTCAACAAT

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# **FIGURE 437**

MMTAKAVDKIPVTLSGFVHQLSDNIYPVEDLAATSVTIFPNAELGGPFQDMNGVAGDGMINIDMTGEKRSLDLPY  
PSSFAPVSAPRNQTFITYMGKFSIDPQYPGASCYPEGIINIVSAGILQGVTSASTTASSSVTSASPNPLATGPLG  
VCTMSQTQPDLDHLYSPPPPPPPYSGCAGDLYQDPSAFLSAATTSTSSSLAYPPPPSYPSPKPATDPGLFPMIPD  
YPGFFPSQCQRDLHGHTAGPDRKPFPCPLDTLRVPPPLTPLSTIRNFTLGGPSAGVTGPGASGGSEGPRLPGSSSA  
AAAAAAAAAYNPHHLPLRPILRPRKYPNRPSKTPVHERPYPCPAEGCDRRFSRSDDELTRHIRIHTGHKPFQCRIC  
MRNFSRSDHLTTHIRHTGEKPFACDYCGRKFARSDERKRHTKIHLRQKERKSSAPSASVPAPSTASCSGGVQPG  
GTLCSSNSSSLGGGFLAPCSSRTRTP



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**FIGURE 438A**

ATGAACCTCTGAAAAC TGCCGGCATCTGAGGTTTCTCCAAGGCCCTCTGAAGTGCAGCCCATATGAAGGTCTT  
GGCGGCAGGAGTTGTGCCCTGCTGTTGGTTCTGCACTGGAAACATGGGGCGGGGAGCCCCCTCCCCATCACCCC  
TGTCACGCCACCTGTGCCATACGCCACCCATGTCAACAACCTCATGAACCAGATCAGGAGCCAACCTGGCACA  
GCTCAATGGCAGTGCCATGCCCTCTTTATTCTCTATTACACAGCCCCAGGGGGAGCCGTTCCCCAACCACTGGA  
CAAGCTATGTGGCCCCAACGTGACGGACTTCCCGCCCTTCCACGCCAACGGCACGGAGAAGGCCAAGCTGGTGG  
GCTGTACCGCATAGTCGTGTACCTTGGCACCTCCCTGGGCAACATCACCCGGGACCAGAAGATCCTCAACCCAG  
TGCCCTCAGCCTCCACAGCAAGCTCAACGCCACCGCCGACATCCTGCGAGGCCTCCTTAGCAACGTGCTGTGCCG  
CCTGTGCAGCAAGTACCACGTGGGCCATGTGGACGTGACCTACGGCCCTGACACCTCGGGTAAGGATGTCTTCCA  
GAAGAAGAAGCTGGGCTGTCAACTCCTGGGGAAGTATAAGCAGATCATCGCCGTGTTGGCCCAGGCCTTCTAGCA  
GGAGGTCTTGAAGTGTGCTGTGAACCGAGGGATCTCAGGAGTTGGGTCCAGATGTGGGGGCCTGTCCAAGGGTGG  
CTGGGGCCCAGGGCATCGCTAAACCCAAATGGGGGCTGCTGGCAGACCCCGAGGGTGCTGGCCAGTCCACTCCA  
CTCTGGGCTGGGCTGTGATGAAGCTGAGCAGAGTGGAACTTCCATAGGGAGGGAGCTAGAAGAAGGTGCCCTT  
CCTCTGGGAGATTGTGGACTGGGGAGCGTGGGCTGGACTTCTGCCTCTACTTGTCCCTTGGCCCCCTTGCTCACT  
TTGTGCAGTGAACAAACTACACAAGTCATCTACAAGAGCCCTGACCACAGGGTGAGACAGCAGGGCCCAGGGGAG  
TGGACCAGCCCCAGCAAATTATCACCATCTGTGCCTTTGTGCCCCCTTAGGTTGGGACTTAGGTGGGCCAGAGG  
GGCTAGGATCCCCAAAGGACTCCTTGTCCCCTAGAAGTTTGATGAGTGGAAAGATAGAGAGGGGCCCTCTGGGATGGA  
AGGCTGTCTTCTTTTGGAGGATGATCAGAGAACTTGGGCATAGGAACAATCTGGCAGAAGTTTCCAGAAGGAGGTC  
ACTTGGCATTTCAGGCTCTTGGGGAGGCAGAGAAGCCACCTTCAGGCCTGGGAAGGAAGACACTGGGAGGAGGAGA  
GGCCTGGAAAGCTTTGGTAGGTTCTTCGTTCTCTTCCCCGTGATCTTCCCTGCAGCCTGGGATGGCCAGGGTCTG  
ATGGCTGGACCTGCAGCAGGGGTTTGTGGAGGTGGGTAGGGCAGGGGCAGGTTGCTAAGTCAGGTGCAGAGGTTT  
TGAGGGACCCAGGCTCTTCTCTGGGTAAAGGTCTGTAAGAAGGGGCTGGGGTAGCTCAGAGTAGCAGCTCAGAT  
CTGAGGCCCTGGGAGGTCTTGTGAGGTACACAGAGGTACTTGAGGGGGACTGGAGGCCGTCTCTGGTCCCCAGG  
GCAAGGGAACAGCAGAACTTAGGGTCAGGGTCTCAGGGAACCTGAGCTCCAAGCGTGCTGTGCGTCTGACCTGG  
CATGATTTCTATTTATTATGATATCCTATTTATATTAACCTATTGGTGCTTTCAGTGGCCAAGTTAATTCCCCTT  
TCCCTGGTCCCTACTCAACAAATATGATGATGGCTCCCGACACAAGCGCCAGGGCCAGGGCTTAGCAGGGCCTG  
GTCTGGAAGTCGACAATGTTACAAGTGAATAAGCTTACGGGTGAAGCTCAGAGAAGGGTCGGATCTGAGAGAAT  
GGGGAGGCCTGAGTGGGAGTGGGGGGCCTTGCTCCACCCCCATCCCCTACTGTGACTTGCTTTAGCGTGTGAGGG  
TCCAGGCTGCAGGGGCTGGGCCAATTTGTGGAGAGGCCGGGTGCCTTTCTGTCTTGCTTCCAGGGGGCTGGTTCA  
CACTGTTCTTGGGCGCCCCAGCATTTGTGTTGTGAGGCGCACTGTTCTTGGCAGATATTGTCCCCCTGGAGCAGT  
GGGCAAGACAGTCCCTTGTTGGGCCACCTGTCTTGTGTTTCTGTGTCCCCATGCTGCCTCTGAAATAGCGCCCTGGA  
ACAACCCTGCCCCCTGCACCCAGCATGCTCCGACACAGCAGGGAAGCTCCTCCTGTGGCCCGGACACCCATAGACG  
GTGCGGGGGGCTGGCTGGGCCAGACCCAGGAAGGTGGGGTAGACTGGGGGGATCAGCTGCCCATTTGCTCCCAA  
GAGGAGGAGAGGGAGGCTGCAGACGCTGGGACTCAGACCAGGAAGCTGTGGGCCCTCCTGCTCCACCCCCATCC  
CACTCCACCCATGTCTGGGCTCCCAGGCAGGGAACCCGATCTCTTCCCTTGTGCTGGGGCCAGGCGAGTGGAGA  
AACGCCCTCCAGTCTGAGAGCAGGGGAGGGAAGGAGGCAGCAGAGTTGGGGCAGCTGCTCAGAGCAGTGTCTGG  
CTTCTTCTCAAACCCTGAGCGGGCTGCCGGCCTCCAAGTTTCTCCGACAAGATGATGGTACTAATTATGGTACTT  
TTCACCTCACTTTCACCTTTCCCTGTGCTCTCTAAGCACTTACCTGGATGGCGCGTGGGCAGTGTGCAGGCAG  
GTCCTGAGGCCTGGGGTTGGGGTGGAGGTGCGGCCCGAGTTGTCCATCTGTCCATCCCAACAGCAAGACGAGG  
ATGTGGCTGTTGAGATGTGGGCCACACTACCCCTTGTCCAGGATGCAGGGACTGCCTTCTCCTTCTGCTTCATC  
CGGCTTAGCTTGGGGCTGGCTGCATTCCCCCAGGATGGGCTTCGAGAAAGACAACTTGTCTGGAACACAGAGTT  
GCTGATTCCACCCGGGGGGGGCGGCTGACTCGCCCATCACCTCATCTCCCTGTGGACTTGGGAGCTCTGTGCCAG  
GCCCACCTTGCGGCCCTGGCTCTGAGTCGCTCTCCACCCAGCCTGGACTTGGCCCCATGGGACCCATCCTCAGT  
GCTCCCTCCAGATCCCGTCCGGCAGCTTGGCGTCCACCCTGCACAGCATCACTGAATCACAGAGCCTTTGCGTGA  
AACAGCTCTGCCAGGCCGGGAGCTGGGTTTCTCTTCCCTTTTATCTGCTGGTGTGGACCACACCTGGGCCTGGC  
CGGAGGAAGAGAGAGTTTACCAAGAGAGATGTCTCCGGGCCCTTATTTATTATTTAAACATTTTTTTAAAGCA  
CTGCTAGTTTACTTGTCTCTCCTCCCCATCGTCCCCATCGTCTCCTTGTCCCTGACTTGGGGCACTTCCACCCCT  
GACCCAGCCAGTCCAGCTCTGCCTTGCCGGCTCTCCAGAGTAGACATAGTGTGTGGGGTGGAGCTCTGGCACCC  
GGGGAGGTAGCATTTCCCTGCAGATGGTACAGATGTTCTGCCTTAGAGTCATCTCTAGTTCCCCACCTCAATCC

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**FIGURE 438B**

CGGCATCCAGCCTTCAGTCCCGCCCCACGTGCTAGCTCCGTGGGCCCCACCGTGCGGCCTTAGAGGTTTCCCTCCTT  
CCTTTCCACTGAAAAGCACATGGCCTTGGGTGACAAATTCCTCCTTGATGAATGTACCCTGTGGGGATGTTTCAT  
ACTGACAGATTATTTTTATTATTCAATGTCATATTTAAATATTTATTTTTATACCAAATGAATCACTTTTTT  
TTTTAAGAAAAAAGAGAAATGAATAAAGAATCTACTCTTCG

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# FIGURE 439

MKVLAAGVVPLLLVLHWKHGAGSPLPITPVNATCAIRHPCHNNLMNQIRSQAQLNGSANALFIIYYTAQGEFPF  
NNLDKLCGPNVTDFFPFHANGTEKAKLVELYRIVVYLGTSLGNITRDQKILNPSALSLHSKLNATADILRGLLSN  
VLCRLCSKYHVGHVDVTYGPDTSGKDVFQKKKLGQCQLLGKYKQIIAVLAQAF

**FIGURE 440A**

[illegible]

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**FIGURE 440B**

AACTCCCTCCCCATTTAGATTATTTATTAACATATTTTAAAAATCAGATGAGTTCTATAAATAATTTAGAGAAG  
TGAGAGTATTTATTTTTGGCATGTTTGGCCCACCACACAGACTCTGTGTGTGTATGTGTGTGTTTATATGTGTAT  
GTGTGTGACAGGAAAATCTGTAGAGAAGAGGCACATCTATGGCTACTGTTCAAATACATAAAGATAAATTTATTT  
TCACACAGTCCACAAGGGGTATATCTTGTAAGTTTTTCAGAAAAGCCTTTGGAAATCTGGATCAGGAAATAGATAACC  
ATGGTTTGTGCAATTATGTAGTAAAAAAGGCAAATCTTTTCACCTCTGGCTATTCCTGAGACCCCAGGAAGTCAG  
GAAAAGCCTTTCAGCTCACCCATGGCTGCTGTGACTCCTACCAGGGCTTTCTTGGCTTTGGCGAAGGTCAGTGTA  
CAGACATTCCATGGTACCAGAGTGCTCAGAAAGTCAAGATAGGATATGCCTCACCTCAGCTACTCCTTGTTTTA  
AAGTTCAGCTCTTTGAGTAACTTCTTCAATTTCTTTCAGGACACTTGGGTGAATTCAGTAAGTTTCCTCTGAAG  
CACCTGAAGGGTGCCATCCTTACAGAGCTAAGTGGAGACGTTTCCAGATCAGCCCAAGTTTACTATAGAGACTG  
GCCCAGGCACTGAATGTCTAGGACATGCTGTGGATGAAGATAAAGATGGTGGGAATAGGTTTTATCACATCTCTTA  
TTTCTCTTTTCCCCTTACTCTCTACCATTTCTTTTATGTGGGGAAACATTTTAAGGTAATAAATAGGTTACTTAC  
CATCATATGTTTCATATAGATGAACTAATTTTTGGCTTAAGTCAGAACAACTGGCCCCCAATTGAAGTCATATTT  
GTGGGGGAAAATGGCATACGCAATATTATATTATTTGGATATTTATGTTTCACACAGGAATTTGGTTTACTGCTT  
TGTAATAAAAAGGGAAAACCTCCGGGTATATGT

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**FIGURE 441**

MGLPEPGPLRLIALLLLLLLLLLLLLLRLQHLAAAAADPLLGGQGPAAKECEKDQFQCRNERCIPSVWRCDDEDDCLDH  
 SDEDDCPKKTACDSDFTCNNGHCIHERWKCDGEECPDGSESEATCTKQVCPAEKLSCGPTSHKCVPASWRCDG  
 EKDCGGADEAGCATLCAPHEFQCGNRSCAAVFVCDGDDDCGDGSDERGCADPACGPREFRCGGDGGGACIPER  
 WVCDRQFDCEDRSDEAAELCGRPGPGATSAPAAACATVSQFACRSGECVHLGWRCDDGRDCKDKSDEADCPLGTCR  
 GDEFQCGDGTCLVLAIKHCNQEQDCPDGSDGAGCLQGLNECLHNNGGCSHICTDLKIGFECTCPAGFQLLDQKTCG  
 DIDECKDPDACSQICVNYKGYFKCECYPGYEMDLLTKNCKAAGGKSPSLIFTNRYEVRRIDLVRNYSRLIPMLK  
 NVVALDVEVATNRIYWCDLSYRKIYSAYMDKASDPKEQEVLIIDEQLHSPEGLAVDWVHKHIYWTDSGNKTI SVAT  
 VDGGRRRTLFSRNLSEPRAI AVDPLRGFMYWSDWGDQAKIEKSGLNGVDRTLVSDNIEWPNGITLDLLSQRLYW  
 VDSKLHQLSSIDFSGGNRKTLISSTDFLSHPFGIAVFEDKVFWTDLENEAIFSANRLNGLEISILAENLNNPHDI  
 VIFHELKQPRAPDACELSVQPNGGCEYLCLPAPQISSHSPKYTCACPD TMWLGPDMKRCYRAPQSTSTTTLASTM  
 TRTPATTRAPGTTVHRSTYQNHSTETPSLTAAPSSSVSVPRAPSI SPSTLSPATSNHSQHYANEDSKMGSTVTA  
 AVIGIIVPIVVIALLCMSGYLIWRNWKRNKTKSMNFDNPVYRKTTEEDEDELDHIGRTAQIGHVYPAAISSFDRP  
 LWAEPCLGETREPEDPAPALKELFVLPGEPRSQLHQLPKNPLSELPPVVKSKRVALSLEDDGLP

**FIGURE 442**

TAGGATGGAAAGGCAGATGTAAAGTCCCTC**ATG**GCGAAATATAACACGGGGGGCAACCCGACAGAGGATGTCTCA  
GTCAATAGCCGACCCTTCAGAGTCACAGGGCCAACTCATCTTCAGGAATACAAGCAAGAAAGAACTTATTCAAC  
AACCAAGGAAATGCCAGCCCTCCTGCAGGACCCAGCAATGTACCTAAGTTTGGGTCCCCAAAGCCACCTGTGGCA  
GTCAAACCTTCTTCTGAGGAAAAGCCTGACAAGGAACCCAAGCCCCCGTTTCTAAAGCCCCTGGAGCAGGCCAA  
AGATTTCGGAACACCAGCCAGCTTGACCACCAGAGACCCCCGAGGCGAAAAGTGGGATTTCTGAAACCTGTAGGCCCC  
AAGCCCATCAACTTGCCCAAAGAAGATTCCAAACCTACATTTCCCTGGCCTCCTGGAAACAAGCCATCTCTTCAC  
AGTGTAACCAAGACCATGACTTAAAGCCACTAGGCCCGAAATCTGGGCCTACTCCTCCAACCTCAGAAAATGAA  
CAGAAGCAAGCGTTTCCCAAATTGACTGGGGTTAAAGGGAAATTTATGTCAGCATCACAAGATCTTGAACCCAAG  
CCCCTCTTCCCCAAACCCGCCTTTGGCCAGAAGCCGCCCTAAGTACCGAGAACTCCCATGAAGACGAAAGCCCC  
ATGAAGAATGTGTCTTCATCAAAGGGTCCCCAGCTCCCCTGGGAGTCAGGTCCAAAAGCGGCCCTTTAAACCA  
GCAAGGGAAGACTCAGAAAATAAGACCATGCAGGGGAGATTTCAAGTTTGCCTTTTCTGGAGTGGTTTTGAAA  
CCTGCTGCGAGCAGGGGAGGCCTAGGTCTCTCCAAAATGGTGAAGAAAAAAGGAAGATAGGAAGATAGATGCT  
GCTAAGAACACCTTCCAGAGCAAAATAAATCAGGAAGAGTTGGCCTCAGGGACTCCTCCTGCCAGGTTCCCTAAG  
GCCCCTTCTAAGCTGACAGTGGGGGGGCCATGGGGCCAAAGTCAGGAAAAGGAAAAGGGAGACAAGAATTCAGCC  
ACCCCGAAACAGAAAGCCATTGCCTCCCTTGTTTACCTTGGGTCCACCTCCACCAAACCCAACAGACCACCAAT  
GTTGACCTGACGAAATTCCACAAAACCTCTTCTGGAAACAGTACTAGCAAAGGCCAGACGTCTTACTCAACAACCT  
TCCCTGCCACCACCTCCACCATCCCATCCGGCCAGCCAACCACCATTGCCAGCATCTCACCCATCACAACCACCA  
GTCCAAGCCTACCTCCCAGAAACATTAAACCTCCGTTTGACCTAAAAAGCCCTGTCAATGAAGACAATCAAGAT  
GGTGTACGCACTCTGATGGTGTGGAATCTAGATGAGGAACAAGACAGTGAAGGAGAAACATATGAAGACATA  
GAAGCATCAAAGAAAGAGAGAAGAAAAGGGAAAAGGAAGAAAAGAGAGTTAGAGCTGGAGAAAAAGGAACAG  
AAAGAGAAAGAAAAGAAAGAACAAGAAATAAAGAAGAAATTTAAACTAACAGGCCCTATTCAAGTCATCCATCTT  
GCAAAGCTTGTTGTGATGTCAAAGGAGGAAAGAATGAAGTGAAGTCAAGCAAGGAGAGCAAATTGAAATCATC  
CGCATCACAGACAACCCAGAAGGAAAATGGTTGGGCAGAACAGCAAGGGGTTTCATATGGCTATATTAAACAACCT  
GCTGTAGAGATTGACTATGATTCTTTGAAACTGAAAAAGACTCTCTTGGTGGCCCTTCAAGACCTATTGAAGAT  
GACCAAGAAGTATATGATGATGTTGCAGAGCAGGATGATATTAGCAGCCACAGTCAGAGTGGAAGTGGAGGGATA  
TTCCCTCCACCACCAGATGATGACATTTATGATGGGATTGAAGAGGAAGATGCTGATGATGGTTTCCCTGCTCCT  
CCTAAACAATTGGACATGGGAGATGAAGTTTACGATGATGTGGATACCTCTGATTTCCCTGTTTCATCAGCAGAG  
ATGAGTCAAGGAACTAATTTTGAAAAGCTAAGACAGAAGAAAAGGACCTTAAGAAGCTAAAAAAGCAGGAAAAA  
GAAGAAAAAGACTTCAGGAAAAAATTTAAATATGATGGTGAATTAGAGTCCTATATTCAACTAAAGTTAACAACCT  
TCCATAACTTCTAAAAAGTGGGGAACAGAGATCTACAGGTAAAACCTGGTGAATCTCTAGAAGTTATACAAACC  
ACAGATGACACAAAAGTTCTCTGCAGAAATGAAGAAGGGAAATATGGTTATGTCCTTCGGAGTTACCTAGCGGAC  
AATGATGGAGAGATCTATGATGATATTGCTGATGGCTGCATCTATGACAATGAC**TAG**ACTCAACTTTGGTCATT

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**FIGURE 443**

MAKYNTGGNPTEDEVSVNSRPFVRTGPNSSSGIQARKNLFNNQGNASPPAGPSNVPKFGSPKPPVAVKPSSEKPD  
KEPKPPFLKPTGAGQRFGTPASLTTRDPEAKVGFLKPVGPKPINLPKEDSKPTFPWPPGNKPSLHNVQDHDLP  
LGPKSGTPPPTSENEQQAFFPKLTGVKGKFMASQDLEPKPLFPKPAFGQKPPLSTENSHEDESPMKNVSSSKGS  
PAPLGVRSGSGLKPAREDSENKDHAGEISSLPFPGVVLKPAASRGGLGLSKNGEEKKEDRKIDAAKNTFQSKIN  
QEELASGTPPARFPKAPSKLTVGGPWGQSQEKEKGDKNSATPKQKPLPPLFTLGPPPPKPNRPPNVDLTKFHKT  
SGNSTSKGQTSYSTTSLPPPPPSHPASQPPLPASHPSQPPVPSLPPRNIKPPFDLKSPVNEDNQDGVTHSDGAGN  
LDEEQDSEGETYEDIEASKEREKKREKEKKRLELEKKEQKEKEKEQEIKKKFKLTGPIQVIHLAKACCDVKGG  
KNELSFKQGEQIEIIRITDNPEGKWLGRRTARGSYGYIKTTAVEIDYDSLKLKDSLGAAPSRPIEDDQEVYDDVAE  
QDDISSHSQSGSGGIFPPPPDDDIYDGIEEDADDGFPAPPKQLDMGDEVYDDVDTSDFPVSSAEMSQGTNFGKA  
KTEEKDLKKLKKQEKEEKDFRKKFKYDGEIRVLYSTKVTTSTITSKKWGTRDLQVKPGESLEVIQTDDTKVLCRN  
EEGKYGYVLRSYLADNDGEIYDDIADGCIYDND



**FIGURE 444A**

[illegible]



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**FIGURE 445**

GSAPGREKEVGGRGAQPAGPEGMFEDKPHAEGA AVVAAAGEALQALCQELNLDEGSAAEALDDFTAIRGNYSLEG  
EVTHWLACSLYVACRKSIIPTVGKGIMEGNCVSLTRILRSAKLSLIQFFSKMKKWMDMSNLPQEFRERIERLERN  
FEVSTVIFKKYEPIFLDIFQNPYEEPPKLPRSRKQRRIPCSVKDLFNFCTWTLFVYTKGNFRMIGDDLVSYHLLL  
CCLDLIFANAIMCPNRQDLLNIHHLKVYHLIFILLTLRLKSHPGIIAVLCELHDGLLVEAKGIKEHYFKPYISK  
LFDRKILKGECLLDLSSFTDNSKAVNKEYEYVLTVVILMRGSFGSRRRRGNGTPRKFTTRDTPLGKLTAAQANVEY  
NLQOHFEKKRSFAPSTPLTGRRYLREKEAVITPVASATQSVSRLQSIVAGLKNAPSDQLINIFESCVRNPVENIM  
KILKGIGETFCQHYTQSTDEQPGSHIDFAVNRLKLAELIYYKILETVMVQETRRLHGMDMSVLEQDIFHRSLMA  
CCLEIVLFAYSSPRTFPWIIIEVLNLQPFYFYKVIEVVIRSEEGLSRDMVKHLNSIEEQILES LAWSHDSALWEAL  
QVSANKVPTCEEVIFPNNFETGNGGNVQGHLPMPMSPLMHPRVKEVRTDSGSLRRDMQPLSPISVHERYSSPTA  
GSAKRRLFGEPPKEMLMDKIIITEGTLKLIAPSSSITAENVSI L PGQTLT MATAPVTGTTGHKVTIPLHGVAND  
AGEITLIPLSMNTNQESKVKSPVSLTAHSLIGASPKQTNLTKAQEVHSTGINRPKRTGSLALFYRKVYHLASVRL  
RDLCLKLDVSNELRRKIWTCFEFTLVHCPDLMKDRHLDQLLLCAFYIMAKVTKEERTFQEIMKSYRNQPQANSHV  
YRSVLLKSIPREVVAYNKNINDDFEMIDCDLEDATKTPDCSSGPVKEERGDLIKFYNTIYVGRVKS FALKYDLAN  
QDHMMDAPPLSPFPHIKQPGSPRRISQQHSIYISPHKNGSGLTPRSALLYKFNGSPSKSLKDINNMIROGEQRT  
KKRVIAIDSDAESPAKRVCQENDDVLLKRLQDVVSERANH

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**FIGURE 446**

GGGGCCAGTCGTTTCGCCGAAAGCATTGTCTCCACCTCATCATAACAACAATTAATTTCTCTGGGGCCTGAG  
GAGGGCAGAATTTCAACCTTCGGTGTGCTTGGGAGTGGCGATTGTGATTTACACGACAAAATGCCGAGGTGCTCG  
GTGGAGTCA**ATGG**CAGTGCCCTTTGTGGAAGACTGGGACTTGGTGCAAACCTGGGAGAAGGTGCCTATGGAGAAG  
TTCAACTTGCTGTGAATAGAGTAACTGAAGAAGCAGTCGCAGTGAAGATTGTAGATATGAAGCGTGCCGTAGACT  
GTCCAGAAAAATATTAAGAAAGAGATCTGTATCAATAAAATGCTAAATCATGAAAATGTAGTAAAATTCTATGGTC  
ACAGGAGAGAAGGCAATATCCAATATTTATTTCTGGAGTACTGTAGTGGAGGAGAGCTTTTTGACAGAATAGAGC  
CAGACATAGGCATGCCTGAACCAGATGCTCAGAGATTCTTCCATCAACTCATGGCAGGGGTGGTTTTATCTGCATG  
GTATTGGAATAACTCACAGGGATATTAAACCAGAAAAATCTTCTGTGGATGAAAGGGATAACCTCAAAATCTCAG  
ACTTTGGCTTGGCAACAGTATTTCCGGTATAATAATCGTGAGCGTTTGTGAACAAGATGTGTGGTACTTTACCAT  
ATGTTGCTCCAGAACTTCTGAAGAGAAGAGAATTTTCATGCAGAACCAGTTGATGTTTGGTCTGTGGAATAGTAC  
TTACTGCAATGCTCGCTGGAGAATTGCCATGGGACCAACCCAGTGACAGCTGTGAGGAGTATTCTGACTGGAAG  
AAAAAAAAACATACCTCAACCCTTGAAAAAAATCGATTCTGCTCCTCTAGCTCTGCTGCATAAAATCTTAGTTG  
AGAATCCATCAGCAAGAATTACCATTCAGACATCAAAAAAGATAGATGGTACAACAAACCCCTCAAGAAAGGGG  
CAAAAAGGCCCGAGTCACTTCAGGTGGTGTGTGTCAGAGTCTCCAGTGGATTTTCTAAGCACATTCAATCCAATT  
TGGACTTCTCTCCAGTAAACAGTGCTTCTAGTGAAGAAAAATGTGAAGTACTCCAGTTCTCAGCCAGAACCCCGCA  
CAGGTCTTTCTTATGGGATACCAGCCCTCATACATTGATAAATTGGTACAAGGGATCAGCTTTTCCAGCCCA  
CATGTCCTGATCATATGCTTTTGAATAGTCAGTTACTTGGCACCCAGGATCCTCACAGAACCCCTGGCAGCGGT  
TGGTCAAAAGAATGACACGATTCTTTACCAAATTGGATGCAGACAAATCTTATCAATGCCTGAAAGAGACTTGTG  
AGAAGTTGGGCTATCAATGGAAGAAAAGTTGTATGAATCAGGTTACTATATCAACAACATGATAGGAGAAACAATA  
AACTCATTTTCAAAGTGAATTTGTTAGAAATGGATGATAAAATATTGGTTGACTTCCGGCTTTCTAAGGGTGATG  
GATTGGAGTTCAAGAGACACTTCTGAAGATTAAAGGGAAGCTGATTGATATTGTGAGCAGCCAGAAGGTTTGGC  
TTCTGCCACAT**ATGAT**CGGACCATCGGCTCTGGGGAATCCTGGTGAATATAGTGCTGCTATGTTGACATTATTCTT  
CCTAGAGAAGATTATCCTGTCCTGCAAACGCAAAATAGTAGTTTCTGAAGTGTTCACTTCCCTGTTTATCCAAAC  
ATCTTCCAATTTATTTTGTGTTGTTTCGGCATACAAATAATACCTATATCTTAATTGTAAGCAAACTTTGGGGAAA  
GGATGAATAGAATTCATTTGATTATTTCTTCATGTGTGTTTAGTATCTGAATTTGAAACTCATCTGGTGGAAC  
AAGTTTCAGGGGACATGAGTTTTCCAGCTTTTATACACACGTATCTCATTTTTATCAAAACATTTTGTGTTAATC  
AAAAAGTACATATTTCTTCATGTTGATTTAATTCTAAGATGAACCAATAAAGACATAATTCTTGCAAAAAAAA  
AAAAAAAAAAAAAAAA

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**FIGURE 447**

MAVPFVEDWDLVQTLGEGAYGEVQLAVNRVTEEAVAVKIVDMKRAVDCPENIKKEICINKMLNHENVVKFYGHRR  
EGNIQYLFLEYCSGGELFDRIEPDIGMPEPDAQRFFHQLMAGVVYLHGIGITHRDIKPENLLDERDNLKISDFG  
LATVFRYNNRERLLNKMCGTLPYVAPELLKRREFHAEPVDVWSCGIVLTAMLAGELPWDQPSDSCQEYSDWKEKK  
TYLNPWKKIDSAPLALLHKILVENPSARITIPDIKKDRWYNKPLKKGAKRPRVTSGGVSESPSGFSKHIQSNLDF  
SPVNSASSEENVKYSSSQPEPRTGLSLWDTSPSYIDKLQGISFSQPTCPDHMLLNSQLLGTGSSQNPWQRLVK  
RMTRFFTKLDADKSYQCLKETCEKLGQWKKSCMNQVTISTTDRRNNKLIFKVNLLMDDKILVDFRLSKGDGLE  
FKRHFLKIKGKLIDIVSSQKVWLPAT

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**FIGURE 448**

GGGGCCAGTCGTTTCGCCGAAAGCATTGTCTCCACCTCATCATAACAACAATTAATTTCTCTGGGGCCTGAG  
GAGGGCAGAATTTCAACCTTCGGTGTGCTTGGGAGTGGCGATTGTGATTTACACGACAAAATGCCGAGGTGCTCG  
GTGGAGTCA**ATGG**CAGTGCCCTTTGTGGAAGACTGGGACTTGGTGCAAACCCTGGGAGAAGGTGCCTATGGAGAAG  
TTCAACTTGCTGTGAATAGAGTAAGTGAAGAAGCAGTCGCAGTGAAGATTGTAGATATGAAGCGTGCCGTAGACT  
GTCCAGAAAATATTAAGAAAGAGATCTGTATCAATAAAATGCTAAATCATGAAAATGTAGTAAAATTCTATGGTC  
ACAGGAGAGAAGGCAATATCCAATATTTATTTCTGGAGTACTGTAGTGGAGGAGAGCTTTTTGACAGAATAGAGC  
CAGACATAGGCATGCCTGAACCAGATGCTCAGAGATTCTTCCATCAACTCATGGCAGGGGTGGTTTATCTGCATG  
GTATTGGAATAACTCACAGGGATATTAAACCAGAAAATCTTCTGTTGGATGAAAGGGATAACCTCAAAATCTCAG  
ACTTTGGCTTGGCAACAGTATTTCCGGTATAATAATCGTGAGCGTTTGTGAACAAGATGTGTGGTACTTTACCAT  
ATGTTGCTCCAGAACTTCTGAAGAGAAGAGAATTTATGCAGAACAGTTGATGTTTGGTCCTGTGGAATAGTAC  
TTACTGCAATGCTCGCTGGAGAATTGCCATGGGACCAACCCAGTGACAGCTGTCAGGAGTATTCTGACTGGAAAG  
AAAAAAAAACATACCTCAACCTTGGAAAAAATCGATTCTGCTCCTCTAGCTCTGCTGCATAAAATCTTAGTTG  
AGAATCCATCAGCAAGAATTACCATTCAGACATCAAAAAAGATAGATGGTACAACAAACCCCTCAAGAAAGGGG  
CAAAAAGGCCCCCGAGTCACTTCAGGTGGTGTGTGTCAGAGTCTCCAGTGGATTTTCTAAGCACATTCAATCCAATT  
TGGACTTCTCTCCAGTAAACAGTGCTTCTAGTGAAGAAAATGTGAAGTACTCCAGTTCTCAGCCAGAACCCCGCA  
CAGGTCTTTTCTTATGGGATACCAGCCCTCATACATTGATAAATTGGTACAAGGGATCAGCTTTTCCAGCCCA  
CATGTCCTGATCATATGCTTTTGAATAGTCAGTTACTTGGCACCCAGGATCCTCACAGAACCCCTGGCAGCGGT  
TGGTCAAAAGAATGACACGATTCTTTACCAAATTGGATGCAGACAAATCTTATCAATGCCTGAAAGAGACTTGTG  
AGAAGTTGGGCTATCAATGGAAGAAAAGTTGTATGAATCAGTTACTATATCAACAACTGATAGGAGAAACAATA  
AACTCATTTTCAAAGTGAATTTGTTAGAAATGGATGATAAAATATTGGTTGACTTCCGGCTTTCTAAGGGTGATG  
GATTGGAGTTCAAGAGACACTTCCTGAAGATTAAAGGGAAGCTGATTGATATTGTGAGCAGCCAGAAGGTTTGGC  
TTCCTGCCACAT**TGA**TCGGACCATCGGCTCTGGGGAATCCTGGTGAATATAGTGCTGCTATGTTGACATTATTCTT  
CCTAGAGAAGATTATCCTGTCCTGCAAACCTGCAAATAGTAGTTCTGAAAGTGTCACTTCCCTGTTTATCCAAC  
ATCTTCCAATTTATTTTGTGTTGTTTCGGCATACAAATAATACCTATATCTTAATTGTAAGCAAACTTTGGGGAA  
GGATGAATAGAATTCATTTGATTATTTCTTCATGTGTGTTTAGTATCTGAATTTGAAACTCATCTGGTGGAAACC  
AAGTTTCAGGGGACATGAGTTTTCCAGCTTTTATACACACGTATCTCATTTTTATCAAAACATTTTGTTTAATTC  
AAAAAGTACATATTTCTTCCATGTTGATTTAATTCTAAGATGAACCAATAAAGACATAATTCTTGCAAAAAAAA  
AAAAAAAAAAAAAAAA

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**FIGURE 449**

MAVPFVEDWDLVQTLGEGAYGEVQLAVNRVTEEAVAVKIVDMKRAVDCPENIKKEICINKMLNHENVVKFYGHRR  
EGNIQYLFLEYCSGGELFDRIEPDIGMPEPDAQRFFHQLMAGVVYLHGIGITHRDIKPENLLDERDNLKISDFG  
LATVFRYNNRERLLNKMCGTLPYVAPELLKRREFHAEPVDVWSCGIVLTAMLAGELPWDQPSDSCQEYSDWKEKK  
TYLNPWKKIDSAPLALLHKILVENPSARITIPDIKKDRWYNKPLKKGAKRPRVTSGGVSESPSGFSKHIQSNLDF  
SPVNSASSEENVKYSSSQPEPRTGLSLWDTSPSYIDKLQGISFSQPTCPDHMLLSQLLGTGSSQNPWQRLVK  
RMTRFFTKLDADKSYQCLKETCEKLG YQWKKSCMNQVTISTDRRNNKLIFKVN LLEMDDKILVDFRLSKGDGLE  
FKRHFLKIKGKLIDIVSSQKVWLPAT

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**FIGURE 450**

TTTAAGGCGCCGGGTTTCCGGGGCTCCTGGCCCCGCTTATTCCGCGGGGGTCGGCGGGGTTCGGCCTGGGCGCCCG  
CGCCGCCGCTGCGCTTTGTCCGCTGGGCACACTGCTTCTGGGAGGGGCGGGCAGACATGGTGGCGGCCGCCGCC  
CCTCCTCGGCCCTAGCATGCCGCGGCCGCCTCGCGGCTACCCGGCTTGCCGGTCCCGAGCGGCAGCCCCGGGGTG  
GCGATGGGGTCGCGCCGAGGCAGCGGAGGTTCTGCGGGCGACTGGAGGTTGGCAGTGGGCGGGAGAAAGAGGAAG  
GCAGGCGCGGCTGGGCCTCGGCCTCTGGCGCCGCGGTACCCCTTGTCTCGGCAGCCTGACGGCCCCGCCGGGCTC  
TCCGGAGAGGGGAACGGGCGGCGAGGGTGGCGGGTCTGGGCGCCCTGTGCTGCGGGGCCGAGAGGCGCTCGGGT  
CGCGGCGGGACCGGCCGACCAGACAGGGTTAATGGAAGAGCCTGGCCAGTCCCGCGCGGGGGCCCCCGCAGCGAC  
AGCCTTGCCCGCGGGGACTGGAGTCCTGAGGGGGAGAAGCCTGCCGTTCTTGAAGGCTCGGGACTTCTGCCCCAAA  
GACTTCGCCGCCGAGAACTGCGGGTGCCTGCCTCAGGGAAGAAGTTGAGAATTTTGCCAGGTCATCTCTGCCAG  
GGCACAGTTTCATCACTGTGTGTTTAGTGTGTTTCGGTGAAGCTCTCCAAGTGTGTTGAATCAGCGTGCCTAGCCT  
CAAGGGTGCACTCGTGAAACTGAAACCAAAGGAATGATACAGGCCTGCTTTGTGTGTGTCTTCCCACTTTAAGCT  
TGTTTTTCAGTACAAATACTCTTGCTTTAAACCTGATTGGACTGTGGCGAGCGGACATCTGTTCAAAGGAGGGGCC  
GAGACCACAGTACTTCTGAAGGGGGCTTGATAATGTGGAAACATTTTAAGTTTTCTCTCCGACTGTTTTGCTCT  
CTCAATTCAGGCAAGTTACTGAAGTACGTTTTTTATCTAGAAAAAGGTTTGATGTAGTCTGTAAATGGTCCTTGT  
AAAGTACATTGCCATCTCAGAATTAAAAGATCCACTCTCATTTATTATGCAGAAGTTAGTGGTCATTCTTTCCTG  
TAGATAGTTTATCTCATGTAAAGACCCACCCAGCTTGGGTTAAATTTTTTCTCACTGACGTATAACCATCAGCT  
TTGATACTTCCATTTTCAGGCTCAGACTTTGAATTTAAGGAACTAAAGATGACTTTATTTTCTTTTCTTTGGT  
TTTTTTTTCCAAAAACAAAAATAAATCCATTACATGTTAACATAGATGATAAGAGTGACATCTTGCATTTTTGC  
AAATCTTTTAAATGCCTGGTTTAATAGAAGATTCTCAGATCTACGTCAGACTGTTGTGGTTAGCACACCATGTAA  
CCTCTGGAACACTCCACTGTACACTCATACTTTTTT



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**FIGURE 451**

MPRPARGYPACRSRAAAPGWRWGRAEAAEVLRTGGWQWAGERGRQARLGLGLWRRGTLCLGSLTAPPGSPERG  
GGEGGGSWAPCAAGPRGARVAAGPAGPDRVNGRAWPVPRGAPATAAAGTGVLGRSLPF

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**FIGURE 452**

ATCCTGTTGTGCCTATCACCTGTTGAAGTTGCCAGTCTTAAGGAAGGGATCAATTTCTTTTCGCAATAAGAGCACT  
GGCAAAGACTACGTCTTGTACAAGAATAAGAGCCGACTGAGGGCATGCAAGAATATGTGCAAGCACCAAGGAGGC  
CTGTTTCATAAAAGATATCGAGGATTTAGCCGGAAGTTGTTGAAATGGATGAAAAACAACGGACTTTTGCTTTTAGA  
ACTGAATCCTCCTAACCCTTGGGACTTACAGCCAGATCTCCTGAAGAGTTGGCTTTTGGAGAAGTACAGATAAC  
ATATCTCACTCATGCCTGCATGGACCTCAAGTTAGGAGACAAGAGAATGGTGTGTTGACCCTTGGTTAATCGGTCC  
TGCTTTTGCCCGTGATGGTGGTTGCTCCATGAGCCTCCATCTGATTGGCTGGAGAGGCTGTGCCAGGCAGACCT  
CGTTTACATCAGTCATCTGCACTCAGACCACCTGAGTTACCCACACTGAAAAAGCTTGCTGGGAGAAGACCAGA  
TATTTCCATTTATGTTGGAAACACAGAAAGGCCTGTATTTTGGAAATCTGAATCAGAGCGGTGTCCAGTTGACTAA  
TATCAATGTCGTGCCATTTGGAATATGGCAGCAGGTGGACAAAAATCTTCGATTCATGATCTTGATGGATGGTGT  
TCATCCTGAGATGGACACTTGCATTATTGTGGAGTACAAAGGTCATAAAATACTCAATACAGTAGACTGCACCAG  
ACCCAATGGGGGAAGGCTGCCTATGAAGGTTGCTCTAATGATGAGTGATTTTGCTGGAGGAGCATCAGGCTTTCC  
AATGACTTTTCAGTGGTGGAAAATTTACGGAGGAATGGAAAGCCCAATTCATTAACAGAAAGGAAGAAGCTCCT  
GAACTACAAGGCTTGGCTGGTGAAGAACCTGCAACCCCGAATTTATTGTCCCTTTGCTGGGTATTTTGTGGAATC  
TCACCCATCAGACAAGTACATCAAGGAAACAAACACCAAAAAATGACCCAAATGAACTCAACAATCTTATCAAGAA  
AAACTCTGATGTGATAACATGGACCCCTCGACCGGGAGCCACCCTTGATCTGGGAAGAATGCTGAAGGATCCAAC  
AGACAGCAAGGGCATCATAGAGCCTCCAGAGGGGACAAAAATTTACAAGGATTCCTGGGATTTTGAACCTTATTT  
GGAAATCTTGAATGCTGCTCTAGGAGATGAAATATTTCTTCACTCATCCTGGATAAAAGAATACTTCACTTGGGC  
TGGATTTAAAGATTACAACCTTGTGGTCAGGATGATTGAGACAGATGAGGACTTCAATCCTTTTCTGGAGGATA  
TGACTATTTGGTTGACTTTTTTAGATTTATCCTTCCAAAAGAAAGACCACAACGAGAACATCCCTATGAGGAAAT  
CCATAGCCGGGTGGATGTCATCAGACACGTGGTGAAGAATGGTCTACTCTGGGATGAGTTGTATATAGGATTCCA  
AACACGGCTCCAGCGGGATCCTGACATATAACATCACCTGTTTGGAAATCATTTTCAAATAAAACTCCCCCTCAC  
ACCACCAACTGGAAGTCATTCTGATGTGCTGTGAGCAGAATGGGCCTGCGATTTTGCAAGAATGCAAAACCAC  
ATGAAAATTTCAAGAATTCATGATCTGATGCAAAATAAAAAATTTATCATTACATCTTGAACCCAGGAAGCTTAC  
AGCAAAGAGACTATGCTTTATGACGTCAGCAATAGATAATTCCACGTTGCCTTTGTGATTTGTATATATAGCTTA  
CATTTGTGGACCACTACATAGCCAGATTCAAAAAATATTTTACTTGTTCATCCACAGTTCTCTACAGAAAGAACC  
AATGAACCCAATAGGAACAAATTCTCTGTGGAACAAAGCATAGCTGTAGTAGATACGAATCCAATCACAGAGG  
AAACAGGAAGAGAAAAACATCCAAGACTACAGTGAAAACCTGGAAATGGTCTGTTTTCGTGATATTCGTATGATTA  
AGATGCAAAATTTTTCTTAGGAAAATGTGATTGTTAACTAGCATTCTGTTTTACATGTTGACATTTCTAACACAC  
ACACCACIGATTGAACTTCAAATTTATTTTCTGATTATATATGCTAGGTCTGATTCTGAAGATACAAGAATTC  
AATGGTGGAAATTTGTCTCCTGAAATT

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**FIGURE 453**

MDENNGLLLLLELNPPNPWDIQPRSPPEELAFGEVQITYLTHACMDLKLGDKRMVFD PWLIGPAFARGWLLHEPPS  
DWLERLCQADLVYISHLHSDHLSYPTLKKLAGRRPDIPYVGNTERP VFWNLNQSGVQLTNINVVPFGIWQQV DK  
NLRFMILMDGVHPEMDTCIIVEYKGHKILNTVDCTRPNGGRLPMKVALMMSDFAGGASGFPMTFSGGKFTEEWKA  
QFIKTERKKLLNYKAWLVKNLQPRIYCPFAGYFVESHP SDKYIKETNTKNDPNELNNLIKNSDVITWTPRPGAT  
LDLGRMLKDPTDSKGIIEPPEGTKIYKDSWDFE PYLEILNAALGDEIFLHSSWIKEYFTWAGFKDYNLVVRMIET  
DEDFNPFPGGYDYLVDLFLDLSFPKERPQREHPYEEIHSRVDVIRHVVKNGLLWDELYIGFQTRLQRDPDIYHHLF  
WNHFQIKLPLTPPNWKSFLMCCEQNGPAILQECKTT

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**FIGURE 454**

AGCCGGCCGCTAAGAAGCCGAAAG**ATG**TCCAGGTTCGGGCGGGCGGCTGAGAAGGCGGACTCCAGACAGCGACCC  
CAGATGAAGGTAAATGAATATAAAGAAAATCAAAACATCGCTTATGTGTCTCTGAGACCAGCACAGACTACAGTT  
TTAATAAAAACAGCTAAGGTCTATCTTGCCCCCTTTTCACTCAGTAATTACCAGCTAGACCAGCTTATGTGCCCC  
AAATCCCTATCAGAAAAGAATTCTAACAATGAAGTGGCGTGTAAGAAGACTAAAAATAAAGAAAACCTGCAGAAGG  
ATTATACCTCCAAAGATGAAAAACACATCTTCCAAGGCAGAATCCACGCTGCAAAATTCATCCTCAGCTGTTTCAT  
ACTGAAAGTAACAAGCTACAACCCAAGAGAACGGCAGATGCGATGAATCTCAGTGTTGATGTGGAAAGTAGTCAG  
GATGGAGACAGTGATGAAGATACCACACCAGCCCTGGATTTTTCGGGATTGTCACCCTACGAAAGGAAGAGACTG  
AAGAACATATCAGAAAACGCAGACTTTTTTGCTTCTCTTCAGTTGTCTGAGTCTGCTGCAAGACTCCGTGAAATG  
ATAGAGAAGAGACAGCCTCCTAAATCCAAAAGAAAGAGCCTAAGAGAGAAAATGGGATTGGATGTAGAAGGTCA  
ATGCGATTACTAAAAGTTGATCCTTCGGGAGTTTCATTACCAGCAGCTCCAACACCGCCGACATTAGTAGCAGAT  
GAAACTCCTTTTGTTACCTCCTGGGCCTTTAGAAATGACTTCTGAAAATCAAGAAGACAACAATGAACGATTTAAA  
GGATTTCTGCACACATGGGCAGGAATGAGCAAGCCAAGTAGTAAGAACACTGAGAAGGGATTATCTAGCATTAAA  
AGCTACAAAGCCAATTTAAATGGCATGGTCATTAGTGAAGATACCGTTTACAAAGTTACCACAGGCCCAATATTC  
TCTATGGCTCTCCATCCATCAGAACTAGAACTTTGGTAGCAGTTGGGGCCAAATTTGGGCAAGTTGGACTTTGT  
GATTTGACCCAGCAACCTAAAGAAGATGGAGTTTATGTTTTTACCCCCATAGTCAGCCAGTTAGCTGTCTTTAC  
TTCTCACCCGCCAATCCGGCCACATACTGTCACTGAGCTATGATGGCACGTTACGCTGTGGGGATTTTTTCCAGG  
GCTATTTTTGAAGAGGTGTATAGAAATGAAAGAAGTAGCTTTTCTCCTTCGACTTCTTGGCAGAAGATGCCTCC  
ACTTTAATAGTAGGACACTGGGATGGAAATATGTCACTGGTGGATAGACGGACACCTGGAACCTTCTTATGAGAAA  
CTTACCAGTTCTTCTATGGGAAAAATAAGAAGCTGTTTCATGTCCACCCAGTGCATAGACAGTATTTTATCACTGCC  
GGATTGAGGGATACTCATATTTATGATGCAAGGCGATTGAATTCCAGGAGAAGTCAGCCTTTGATTTCTTTGACT  
GAACATACAAAGAGCATTGCTTCCGCCTATTTTTACCTCTTACTGGTAACAGAGTGGTGACCACATGTGCTGAT  
TGTAATCTGAGAATTTTTGACAGCAGCTGTATATCTTCTAAGATTCCGCTCCTCACCACCATCAGGCACAACACT  
TTCAGTGGGCGATGGCTGACCAGGTTCCAAGCCATGTGGGATCCTAAACAAGAAGACTGTGTCTATAGTTGGCAGC  
ATGGCCCATCCACGACGGGTAGAAATCTTCCATGAGACAGGAAAGAGGGTGCATTGTTTTGGTGGAGAATACCTT  
GTCTCTGTGTGTTCCATCAATGCCATGCACCCAACCTCGGTATATTTTGGCTGGAGGTAATTCCAGCGGGAAGATA  
CATGTTTTTATGAATGAAAAAGCTGCT**AG**ATTTTTGGTTTAGGAACATCAATTTGTTCAAATTGACCACTGTCT  
AAGGAGCCTAGTAATCGGCGTGCCTTAGTGTGTTTATGTGGTAATGTGTTACATTTAGCAATTATAACATTGTTT  
TATTAATAAGACTATAAGAAGAGTGACTTTTAGTAAGGGAGAAGTCTTGAGGGTTGCTTCTGCAGGACGGGGA  
GGGAATTTGAGGGGAGGCTGAGGTGCCGTCAGGACTTTTTTTTTTTTTTTTTTTTGGAGATGGAGTTTTGCTCTT  
GTTGCCCAGGCTGGAGTGCAATAGCGCGATCTTGGCTCACCGCAACCTCCGCCTCCAGGTTCAAGCGATTCTCC  
TGCCCTCAGACTCCTAAGTAGCTGGGATTACAGGCACCTGCCACCACGCCTGGCTATTTTTTTTGTATTTTTTAGTAG  
AGATGGGGTTTCATCATGTTGGCCAGGCTGGTCTCGAGCTCCTGACCTCAGGTGATCTGCCCGCCTCGGCCTCCA  
AAAGTGCTGGAATTACAGGCGTGAGCCACCATGCCTGGCCATCAGAACTTGTAATCAAGACAGTATGTTGAGAAA  
TTCTAACATTATAAATTACAAAGCTTTGACTATTAAAGTTTTTGTGATCT

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**FIGURE 455**

MSRSGAAAEKADSRQRPQMKVNEYKENQNIAYVSLRPAQTTVLIKTAKVYLAPFSLSNYQLDQLMCPKSLSEKNS  
NNEVACKKTKIKKTCRRIIPPKMKNTSSKAESTLQNSSSAVHTESNKLQPKRTADAMNLSVDVESSQDGDSDT  
TPALDFSGLSPIYERKRLKNISENADFFASLQLSAARLREMIEKRQPPKSKRKKPKRENGIGCRRSMRLKVD  
SGVSLPAAPTPTLVADETPLLPPGPLEMTSENQEDNNERFKGFLHTWAGMSKPSSKNTKGLSSIKSYKANLNG  
MVISDITVYKVTGPIFSMALHPSETRTLAVGAKFGQVGLCDLTQQPKEDGVYVFHPSQPVSCLYFSPANPAH  
ILSLSYDGTLCGDFSRAIFEVYRNERSSFSDFLAEDASTLIVGHWDGNMSLVDRRTPGTSYEKLTSSSMGK  
IRTVHVHPVHRQYFITAGLRDTHIYDARRLSRRSQPLISLTEHTKSIASAYFSPLTGNRVTTCADCNLRIFDS  
SCISSKIPLLTITRHNTFTGRWLTRFQAMWDPKQEDCVIVGSMAPRRVEIFHETGKRVHSFGGEYLVSVCSINA  
MHPTRYILAGGNSSGKIHFVFMNEKSC

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**FIGURE 456**

TGGCGGCCGCCGCGTCGCCGCC**ATG**GACCTAGGACCCTTGAACATCTGTGAAGAAATGACTATTCTGCATGGAG  
GCTTCTTGCTGGCCGAGCAGCTGTTCCACCCTAAGGCACTGGCAGAATTAACAAAGTCTGACTGGGAACGTGTTG  
GACGGCCCATCGTGGAGGCCCTTAAGGGAGATCTCCTCGGCTGCAGCACACTCCCAGCCCTTTGCCTGGAAGAAGA  
AAGCCCTGATCATCATCTGGGCCAAGGTTCTGCAGCCGACCCCGTGACCCCGTCCGACACAGAGACACGGTGGC  
AGGAAGACCTGTTCTTCTCGGTGGGCAACATGATCCCCACCATCAACCACACCATCCTCTTCGAGCTGCTCAAAT  
CCCTGGAAGCTTCTGGACTCTTTATCCAGCTCCTGATGGCCCTGCCCACCACCATCTGCCATGCAGAACTAGAGC  
GCTTTCTGGAACATGTGACCGTTGACACTTCTGCCGAAGACGTGGCCTTCTTCCTGGACATCTGGTGGGAGGTGA  
TGAAGCACAAGGGTCACCCGCAGGACCCCTGCTCTCCCAGTTTAGTGCAATGGCCCATAAGTACCTGCCTGCCT  
TAGATGAGTTCCCCCATCCTCCAAAGAGGCTTAGGTGACCCAGACGCGTGCCCCACCATGCCCTGTTGGCCA  
TGCTGCTCCGCGGGCTGACACAGATCCAGAGTCGGATCCTGGGCCCCGGGGAGGAAGTGCTGTGCGCTGGCCAACC  
TGGCTGACATGCTGACTGTGTTTGCGCTGACAGAGGACGACCCCGAGGAGGTGCTGCAACCGTGTATCTGGACA  
AACTGGCCACGGTGATCTCTGTGTGGAACTCGGACACCCAGAATCCCTACCACCAGCAGGCGTGGCAGAGAAGG  
TGAAGGAGGCAGAACGGGATGTCAGCCTGACCTCGCTGGCCAAACTCCCCAGTGAGACCATTTTCGTGGGCTGCG  
AGTTCTTGCAACCACCTGCTGCGGGAGTGGGGGGAGGAGTTGCAGGCCGTGCTCCGCAGCAGCCAGGGGACAAGTT  
ACGACAGCTACCGGCTGTGCGACAGTCTGACTTCCTTCAGCCAGAACGCGACGCTCTACCTGAACCGCACCCAGCC  
TGTCCAAGGAGGACAGGCAGGTGGTCTCTGAGCTGGCGGAGTGTGTCAGGGACTTCCTGAGGAAAACGAGCACGG  
TGCTGAAGAACAGGGCCTTGAGAGGATATCACAGCTTCCATTGCCATGGCCGTCATCCAGCAGAAGATGGACCGCC  
ATATGGAAGTGTGCTACATTTTTTGCTCTGAGAAGAAGTGGGCCTTCTCGGACGAGTGGGTAGCCTGCCTGGGGA  
GTAACAGGGCCCTCTTCCGAGAGCCAGACTTGGTGTGAGGCTGCTGAAACAGTGATAGACGTCAGCACAGCTG  
ACAGAGCCATCCCTGAGTCTCAGATCCGGCAGGTGATCCACCTGATCCTGGAATGTTACGCAGACCTCTCCCTGC  
CAGGTAAAAATAAAGTCCTTGAGGTATCCTGCGTTTCTGGGGCGAAAGGGCCTCTCTGAAAAGTTGCTGGCTT  
ATGTGGAGGGTTTTTCAGGAAGACCTCAATACAACTTTTAACCAGCTCACTCAGAGTGCCTCCGAACAGGGCTTGG  
CAAAAGCTGTGGCCTCCGTGGCCCGCCTGGTCATAGTGCACCCGGAAGTCACGGTGAAGAAAATGTGCAGCCTGG  
CTGTGGTCAATCTCGGCACCCACAAGTTTCTGGCCAGATTCTCACTGCCTTCCCTGCCCTTAGGTTTTGTGGAAG  
TGCAGGGTCCCAATTCATCTGCCACTTTCATGGTGTATGCCTCAAAGAAAACCGTCTGGATGAAGTTCTCTACAC  
CCAAGGAAGAAAAGCAATTTTTAGAGCTCCTGAACTGCCTGATGAGTCCCGTGAAACCCCAAGGGATTCCAGTGG  
CTGCTCTTCTTGAGCCAGACGAGGTGCTGAAGGAATTTGTCTGCTTTCTTGAGGTTAGATGTTGAAGAGGTAG  
ACCTCAGTCTGAGGATCTTCATCCAGACTCTAGAGGCAAACGCGTGCCGAGAGGAATACTGGCTCCAGACCTGCT  
CCCCGTTTCCACTCCTCTTCAGCTTGTGCCAGCTCTTGGACCGCTTTAGCAAATACTGGCCGCTTCCCAAGGAGA  
AGCGGTGCCTCTCTTTGGATAGGAAGGATCTAGCGATCCATATCCTGGAGCTCCTGTGTGAGATTGTATCAGCCA  
ATGCTGAGACCTTCTCCCCGGATGTCTGGATCAAGTCCCTGTCTGGCTCCACCGCAAGTTAGAACAGCTAGACT  
GGACTGTGGGCCTGAGGCTGAAGAGCTTCTTCGAGGGGCACTTCAAGTGTGAAGTGCCAGCCACACTTTTTGAGA  
TCTGTAAGCTTTTCAAGAAGACGAGTGACCTCCCAGGCCACCCAGGGTACGGGGCTGGCACGGGGCTCCTGGCCT  
GGATGGAGTGCTGCTGCGTCTCCAGCGGCATCTCGGAGAGGATGCTGTCTCTCTTGGTGGTGGACGTGGGCAATC  
CTGAGGAGGTGAGACTGTTTCAGCAAAGGCTTTCTGGTGGCCCTGGTGCAAGTCATGCCTTGGTGCAGCCCTCAGG  
AGTGGCAGCGCCTTCACCAGCTGACCAGGAGACTGCTGGAGAAGCAGCTCCTCCATGTCCCTTATAGCCTGGAAT  
ATATTCAGTTTGTTCCTTGCTCAACCTGAAGCCCTTTGCCAGGAGTTGCAACTCTCCGTCTCTTCTGAGGA  
CTTTCCAGTTTCTCTGCAGCCATAGCTGTCGTAATTGGCTTCTCTGGAAGGCTGGAACCACGTGGTCAAACCTCC  
TCTGTGGCAGTCTGACCCGCTCCTGGACTCAGTCAGGGCGATACAGGCAGCTGGCCCTTGGGTTCAAGGACCAG  
AGCAGGACCTGACCCAGGAAGCCCTGTTTGTGTTACACCCAGGTGTTCTGCCATGCTCTGCACATCATGGCCATGC  
TCCACCCGGAGGTCTGTGAGCCACTCTACGTTTTAGCCTTGAAACCCCTCACCTGCTATGAGACTTTGAGCAAGA  
CCAACCCCTTCTGTGAGCTCCTTGCTCCAGAGGGCACACGAGCAGCGCTTCTTAAAGTCCATTGCTGAGGGCATTG  
GCCCTGAAGAACGGCGCCAAACCCGTGTGAGAAGATGAGCAGCTTCT**TGAC**TTGGCGTGGGGAGCTGGGCCCCAA  
CATGGCGGGTCTGCAGAAGATCAGCAGCTTCTTACCTGTGCGGGAGCGAAAAAGCTGGGCTTCAACATGGCAGGT  
CTGTAGGGGTGAGACCCGAGCAGCCTGGACTTTACAGTTATGTGAAACTGTCCACAAAAAGTCATGGCAATAATG  
GTGTAAAGAAAATAGTTTTCTTGGGTATTTGTAACGTACAAACTATCATAAAAATCTCCTCTTTTCGCATCTCAA  
AAAAAAAAAAAAAAAAAAAAA

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**FIGURE 457**

MDLGPLNICEEMTILHGGFLLAEQLFHPKALAE LTKSDWERVGRPIVEALREISSAAAHSQPF  
AWKKKALII IWA  
KVLQPHPVTPSDTETRWQEDLFFSVGNMIPTINHTILFELLKSLEASGLFIQLLMALPTTICHAELERF  
LEHVTVD  
DTSAEDVAFFLDIWWVEVMKHKGHPQDPLLSQFSAMAHKYLPADEFPHPPKRLRSDPDACPTMPL  
LAMLLRGLTQ  
IQSRILGPGRKCCALANLADMLTVFALTEDDPQEV SATVYLDK LATVISVWNSDTQNPYHQQALAEKV  
KEAERDV  
SLTSLAKLPSETIFVGCEFLHLLREWGEELQAVLRSSQGTSYDSYRLCDSLTSFSQ NATLYLNRTSL  
SKEDRQV  
VSELAECVRD FLRKTSTVLKNRALEDITASIAMAVIQQKMDRHMEVCYIFASEKKWAFSDEWVAC  
LGSNRALFRE  
PDLVLRLL ETVIDVSTADRAIPESQIRQVIHLILECYADLSLPGKNKVLAGILRSWGRKGLSEKLLAY  
VEGFQED  
LNTTFNQLTQSASEQGLAKAVASVARLVIVHPEVTVKKMCSLAVVNLGTHKFLAQILTAFPALRFVEV  
QGNSSA  
TFMV SCLKETVWMKFSTPKEEKQFLELLNCLMSPVKPQGIPVAALLEPDEV LKEFVLPFLRLDVEE  
VDLSLRIFI  
QTL EANACRE EYWLQTCSPFPLLFSLCQLLDRFSKYWPLPKEKRCLSLDRKDLAIHILELLCEIVS  
ANAETFSPD  
VWIKSLSWLHRKLEQLDWTVGLRLKSFFEGHFKEVPATLFEICKLSEDEWTSQAHPGYGAGTG  
LLAWMECCCVS  
SGISERMLSLLVVDVGNPEEVRLFSKGF LVALVQVMPWCSPQEWQRLHQLTRRLLEKQLLHV  
PYSLEYIQFVPLL  
NLKPFAQELQLSVLFLRTFQFLCSHSCRNWLPLEGWNHVVKLLCGSLTRLLDSVRAIQAGPWVQ  
GPEQDLTQEA  
LFVYTQVFCALHIMAMLHPEVCEPLYVLALETLTCTCYETLSKTNPSVSSLLQRAHEQRFLKSIA  
EGIGPEERRQT  
LLQKMSSF

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**FIGURE 458**

CGACGCGGGAGCCGCACGCGCCGGACGAGGCTCGCTGCGCTCCCTGTTGCCAGCGCGGGCCGTTGAGGCGGAG  
 CCCTCAGTTCCCGGCCAGGACACGGTCTGGGCGCCGAATCTCCGGCCGAAGAGCGGCGGCAGCGCGGGAA  
 AAAAA**ATGA**AAGATGAAATTGCTGCCGTTGTCTTCTTTTTCACAAGGCTAGTTCGAAAACATGATAAGTTGAAAAA  
 AGAGGCAGTTGAGAGGTTTGCTGAGAAATTGACCCTAATACTTCAAGAAAAATATAAAAATCACTGGTATCCAGA  
 AAAACCATCGAAAGGACAGGCCTACAGATGTATTGCTGTCAATAAAATTTAGAGAGTTGATCCTGATGTCCTGAA  
 AGCCTGTGAAAACAGCTGCATCTTGTATAGTGACCTGGGCTTGCCAAAGGAGCTCACTCTCTGGGTGGACCCATG  
 TGAGGTGTGCTGTCGTAGAGATGGGGTTTTACCATTGTTGGCCAGACTGCTCTCAAACCTCTGACCTCGTGATCCG  
 CCCGCCTTGGCCTCCCAAAGCGCTGGATTACAGGCGTGAGCCACTGCGCCCGCCTCCTCCTTTTTTGATTATGTA  
 TGGAGAGAAAAACAATGCATTCAATTGTTGCCAGCTTTGAAAATAAAGATGAGAACAAGGATGAGATCTCCAGGAA  
 AGTTACCAGGGCCCTTGATAAGGTTACCTCTGATTATCATTACAGGATCCTCTTCTTCAGATGAAGAAACAAGTAA  
 GGAAATGGAAGTGAACCCAGTTCGGTGACTGCAGCCGCAAGTCCTGTGTACCAGATTTAGAACTTATATTTCC  
 ACCTCTTCCAATGTGGCACCCTTTGCCCAGAAAAAAGCCAGGAATGTATCGAGGGAATGGCCATCAGAATCACTA  
 TCCTCCTCCTGTTCCATTTGGTTATCCAAATCAGGGAAGAAAAAATAAACCATATCGCCCAATTCCAGTGACATG  
 GGTACCTCCTCCTGGAATGCATTGTGACCGGAATCACTGGATTAATCCTCACATGTTAGCACCTCACT**TAA**CTTCG  
 TTTTGTATTGTTGGTGTGATGTTGAGAAAAAGGTAGAATAAACCTTACTACACATTAAGTTAAAGTTCTT  
 ACTAATAGTAGTGAAGTTAGATGGGCCAAACCATCAAACCTATTTTTATAGAAGTTATTGAGAATAATCTTTCTT  
 AAAAAATATATGACCTTTAGATATTGATATAGTTTGAGAAATTTTATTAAAGTTAGTCAAGTGCCTAAGTTTTTA  
 ATATTGGACTTGAGTATTTATATATTGTGCATCAACTCTGTTGGATACGAGAACCCTGTAGAAGTGGACGATTG  
 TTTTAGCCCTTTGAGAATTTACTTTATGGAGCGTATGTAAGTTATTTATATACAAGGAAATCTATTTTATGTGCG  
 TTGTTTAAGAGAATTGTGTGAAATCATGTAGTTGCAAATAAAAAATAGTTTGAGGCAAAAAAAAAAAAAAAAAA  
 AAAAAAAAAA



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**FIGURE 459**

MKNEIAAVVFFTRLVRKHDKLKKEAVERFAEKLTLILQEKYKNHWPEKPSKGQAYRCIRVNKFQRVDPDVLKA  
CENSCLYSDLGLPKELTLWVDPCEVCCRRDGVSPCWDCSQTPDLVIRPPWPPKALDYRREPLRPASSFLIMYG  
EKNNAFIVASFENKDENKDEISRKVTRALDKVTSDYHSGSSSSDEETSKEMEVPSSVTAAASPVYQISELIFPP  
LPMWHPLPRKKPGMYRGNGHQNHYPVPVFGYPNQGRKNKPYRIPVTWVPPPGMHCDRNHWINPHMLAPH

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**FIGURE 460**

CAGGCCAGGACTCCACAAGGCTGGTCCCCTGCCCTGGAGCAACTTAAACAGGCCCTCTGGCCAGCCTGGAACCTT  
GAGATGGCCTCCAGCTCAGGCAGCAGTCCTCGCCCGGCCCTGATGAGAATGAGTTTCCCTTTGGGTGCCCTCCC  
ACCGTCTGCCAGGACCCAAAGGAGCCCAGGGCTCTCTGTGTGCAGGCTGTCTCTTGAGAACCCGAGGAATGGC  
GAGGATCAGATCTGCCCCAAATGCAGAGGGGAAGACCTCCAGTCTATAAGCCCAGGAAGCCGTCTTCGAACCTCAG  
GAGAAGGCTCACCCCGAGGTGGCTGAGGCTGGAATTGGGTGCCCTTTGCAGGTGTCGGCTGCTCCTTCAAGGGA  
AGCCCACAGTCTGTGCAAGAGCATGAGGTACCTCCCAGACCTCCACCTAAACCTGCTGTTGGGGTTCATGAAA  
CAGTGGAAGGCCCGGCTGGGCTGTGGCCTGGAGTCTGGGCCATGGCCCTGGAGCAGAACCTGTGACACCTGCAG  
CTGCAGGCAGCCGTGGAAGTGGCGGGGGACCTGGAGGTCGATTGCTACCGGGCACCTGCTCCGAGAGCCAGGAG  
GAGCTGGCCCTGCAGCACTTCATGAAGGAGAAGCTTCTGGCTGAGCTGGAGGGGAAGCTGCGTGTGTTTGAGAAC  
ATTGTTGCTGTCTCAACAAGGAGGTGGAGGCCTCCACCTGGCCCTGGCCACCTCTATCCACCAGAGCCAGCTG  
GACCGTGAGCGCATCCTGAGCTTGGAGCAGAGGGTGGTGGAGCTTCAGCAGACCTGGCCCAAGAACAGCCAGGCC  
CTGGGCAAGCTGGAGCAGAGCTTGCGCCTCATGGAGGAGGCCTCCTTCGATGGCACTTTCTGTGGAAGATCACC  
AATGTCACCAGGCGGTGCCATGAGTCGGCCTGTGGCAGGACCGTCAGCCTCTTCTCCCCAGCCTTCTACACTGCC  
AAGTATGGCTACAAGTTGTGCCTGCGGCTGTACCTGAATGGAGATGGCACTGGAAAGAGAACCCATCTGTGCTC  
TTCATCGTGATCATGAGAGGGGAGTATGATGCGCTGCTGCCGTGGCCTTCCGGAACAAGGTCACCTTCATGCTG  
CTGGACCAGAACAACCGTGAGCACGCCATTGACGCCTTCCGGCCTGACCTAAGCTCAGCGTCCTTCCAGAGGCCC  
CAGAGTGAACCAACGTGGCCAGTGGATGCCCACTCTTCTTCCCCCTCAGCAAACCTGCAGTCACCCAAGCACGCC  
TACGTGAAGGACGACACAATGTTCTCAAGTGCATTGTGGAGACCAGCACTTAGGGTGGGCGGGGCTCCTGAGGG  
AGCTCCAACCTCAGAAGGGAGCTAGCCAGAGGACTGTGATGCCCTGCCCTTGGCACCCAAGACCTCAGGGCACAAA  
GATGGGTGAAGGCTGGCATGATCCAAGCAAGACTGAGGGGTCGACTTCGGGCTGGCCATCTGTTAGGATGGCAG  
GACGTGGGCTGGGCCCACAAAGGCAAGGGTCCAGAAGGAGACAGGCAGAGCTGCTCCCTCTGCACGGACCATG  
CGACACTGGGAGGCCAGTGAGCACTCCGGCCCCGAATGTTGAGGTGGACTCTACCAAATGAGAAGAAAATGGA  
ACCAGGCTTGGAACCGTAGGACCCAAGCAGAGAAGCTCTCGGGCTAGGAAGATCTCTGCAGGGCCGCCAGGGAGA  
CCTGGACACAGGCCTGCTCTCTTTTTCTCCAGGGTCAGAAACAGGACCGGGTGAAGGGATGGGGTGCCAGTTTG  
AATGCAGTCTGTCCAGGCTCGTCATTGGAGGTGAACAAGCAAACCCAGAGGGCTCCACTAGGACTTCAAATTGGG  
GGTTGGATTTGAAGACTTTTAAGTTTCCTTCCAGCCCAGAAAGTCTCTCATTCTAGGCCTCCTGGCCCAGGTGAG  
TCCTAGAGCTACAGGGGTTCTGGAAACATTAGGAGCTTCCTGTCTCCAGCTCCTCACTCACCTTCAGTAACC  
CCCCTGGACTGACCTGGTCCACAGGGCACCTGCCACCTGGGCCTGGCAGCTCAGCTTCCCCAACACGCAGGAG  
CACACCCAGCCCCACATCCTGTGCCTCCATCAGCTAAACACCACGTCACCTCATGCAGGTGAAACCCAGTCACT  
GTGAGCTCCCAGGTGCAGCCAGAGGCACCTCAAGAAGAAGAGGGGCATAAACTTTCTCTTCTGCCTAGAGGCC  
CCACCTTTGGTGCTTTCCAGAATCCCGTAACACCTGATTAAGTGAAGCATCCACTTCTTTTTCAGCAGACTGATCAG  
GACCTCCAAGCCACTGAGCAATGTATAACCCCAAAGAAATAATTTTTAGAAATCTCTTTCGAAGTTTTCTTAAAAA  
AAAAAAAAAAAA

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**FIGURE 461**

MASSSGSSPRPAPDENEFFPGCPPTVCQDPKEPRALCCAGCLSENPRNGEDQICPKCRGEDLQSI SPGSRRLRTQE  
KAHPEVAEAGIGCPFAGVGCSFKGSPQSVQEHEVTSQTSHLNLLLGFMKQWKARLGCGLESGPMALQNLSDLQL  
QAAVEVAGDLEVDCYRAPCSESQEELALQHFMKEKLLAELEGKLRVFENIVAVLNKEVEASHLALATSIHQSQLD  
RERILSLEQRVVELQQT LAQKDQALGKLEQSLRLMEEASFDGTFLWKITNVTRRCHESACGRTVSLFSPA FYTAK  
YGYKLCLRLYLNGDGTGKRTHLSLFIVIMRGEYDALLPWPFRNKVTFMLLDQNNREHAIDAFRPDLSSASFQRPQ  
SETNVASGCPLFFPLSKLQSPKHAYVKDDTMFLKCIVETST

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**FIGURE 462**

AGACGCAAGACGCCGGGCTACAGCGGGAGCGTGAGGAAAGCCGTGCGTTGCGTTCCAAGGCATCTGTGAGCCCG  
CGGAGTATACACCATGAGCAAAGCTCACCCCTCCCGAGTTGAAAAAATTTATGGACAAGAAGTTATCATTGAAATT  
AAATGGTGGCAGACATGTCCAAGGAATATTGCGGGGATTTGATCCCTTTATGAACCTTGTGATAGATGAATGTGT  
GGAGATGGCGACTAGTGGACAACAGAACAATATTGGAATGGTGGTAATACGAGGAAATAGTATCATCATGTTAGA  
AGCCTTGGAACGAGTATAAATAATGGCTGTTCAGCAGAGAAACCCATGTCTCTCTCCATAGGGCCTGTTTTACT  
ATGATGTAAAAATTAGGTCATGTACATTTTCATATTAGACTTTTTGTAAATAAACTTTTGTAAATAGTCAAAAAT  
GCTTTCTCAGATGTTCTGAATATAGAATATCAGCTCTCATTCCAGTTTTTTCTAACATGAATTTTCCTGGTTGAC  
ATTGATTTCAAAGGGTTTTATGCATTAAAGTGAAAGAATCTTATTAAATGCGAAAAAAAAAAAAAAAAAAAAA  
AAAAAA

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**FIGURE 463**

MSKAHPPELKKFMDKKLSLKLNGGRHVQGILRGFDPFMNLVIDECVEMATSGQQNNIGMVVIRGNSIIMLEALER  
V

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**FIGURE 464**

CGGGAGGCGGCAGCGGCTGCAGCGTTGGTAGCATCAGCATCAGCATCAGCGGCAGCGGCAGCGGCCTCGGGCGGG  
GCCGGCCGGACGGACAGGCGGACAGAAGGCGCCAGGGGCGCGCTCCCGCCGGGCGGCC**ATG**GAGGGCGCCTC  
CTTCGGCGCGGGCCGCGCAGGGGCGCCCTGGACCCCGTGAGCTTTGCGCGGCGGCCCCAGACCCTGCTCCGGGT  
CGCGTCCTGGGTGTTCTCCATCGCCGTCTTCGGGCCCATCGTCAACGAGGGCTACGTGAACACCGACAGCGGGCC  
CGAGCTGCGCTGCGTGTTCAACGGGAACGCGGGCGCCTGCCGCTTCGGCGTCGCGCTGGGCCTCGGAGCCTTCCT  
CGCCTGCGCCGCTTCCTGCTGCTCGATGTGCGCTTCAGCAAATCAGCAGCGTCCGCGACCGCCGGCGCGCGGT  
GTTGCTGGACCTGGGCTTCTCAGGACTCTGGTCCTTCCTGTGGTTCGTGGGCTTCTGCTTCCTACCAATCAGTG  
GCAGCGACGGCGCCAGGGCCGGCCACGACGAGGCGGGGACGCGGCGCGGGCCGCAATCGCCTTCAGCTTCTT  
CTCCATCCTCAGCTGGGTGGCGCTACCCGTGAAGGCCCTGCAGCGGTTCCGCTGGGCACCGACATGTCACTCTT  
CGCCACCGAACAGCTGAGCACCGGGGCGAGCCAGGCCTACCCCGGCTATCCGGTGGGCAGCGGCGTGGAGGGCAC  
CGAGACCTACCAGAGCCCGCCCTTACCGAGACCCTGGACACCAGCCCCAAAGGGTACCAGGTGCCCGCCTAC**TA**  
**G**CGGCTGGCAGGCACAGACCAGGGCTCCAAGGCCACCCACCAACGCAGGCCCCAGGGTCTCCGGGACCTCCCTT  
GGGTCTTCCAGCTCAGTGCCGCGGACAGAGTAGGTGGCCGCTTTGCGCCATCCGGGGCCAAGAGGGGGTGGACC  
CGCGTGTCTGGGCTGCCCCTGCCAAGTTCCCCCAGTCCCTCAGCACCTGGCCCCAGGACTGAGGTCTTGAGAAGG  
GGATAGCACTGCCCAGGACGTGTGTCCCTAGCCTGGAATGGACTGGCCTGGGGAAGGCTTTCCCTCTTGGGCCA  
CACCTGCTCACTCTGGGGTTGGGGGTCCAGCTGCCCTCTACGATCAGGTGCAGGGGCTGCCAGGACAAAGCGGG  
GGCAGGGGAAAGACACCACCTCGCCCCAAGACTGGGGATCCTGGCCACTGTTCCCATCCCATGTCCCTGTGGGT  
AGTGACTGTCTCGTTTCTGTCAIGGTGGTGCCTCCCGTCCGGAGCCACTCTCCACTTTCTCTCACAGGCTGCTAG  
AACAGCCCAGCCCTGTCAGTGTTGTGATCATGGTCCAGTCTTCGGGTTTACCTCCTAGTACTCCACAAGCTGCT  
CCTCTCTGTGGCCCCGGCCCCCTGCCAGGTGTGGGTGGTTCTGGCCAGGAAGGCACAAGGTAGCTGTGGGCCA  
AGACACCAGCCCTGTCTAGCCCTTCAGTAAGACCTTGCCAGGAGAGGAGAAGGATGCCTGGGTGCCAGGCAAGA  
CAAGCCCCCTCAGCAGGAGAGAGGGCCAGAGGCTCCAGCTGGCCACCGTGCCCCACAAGATGGCCCCCTGTGTGGTT  
CCCTTTACCTTGGCTTCCTGGCCAGTCCCTGCCTCTCCACCTGCACCCTGCTTCCTGGCCCAGTCCCAGGTTGG  
AGTCCCTCTGCATAGCTGACTACTCATGCATTGCTCAAAGCTGGCTTTTACATTAAGTCAACACCAAACGTGGT  
TGCCACATTTTCATCAGACAGACACCTCCCTCTGGAGATGCAGTTGAGTGACAACCTTGTTACATTGTAGCCTAGA  
CCAATTCTGTGTGGATATTTAAGTGAACATGTTTACAATTTTTGTATATATCACTCTCTCCCTCTCCTGAAAGAC  
CAGAGATTGTGTATTTTCAGTGTCCCATGTTCCGACTGCACCTTCTTTACAATAAAGACTGTAACTGAGCTGACT  
GTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 465**

MEGASFGAGRAGAALDPVSFARRPQTLLRVASWVFSIAVFGPIVNEGYVNTDSGPELRCVFNGNAGACRFGVALG  
LGAFLACAAFLLLDVRFQQISSVRDRRAVLDDLGFSGLWSFLWFVGFCLTNQWQRTAPGPATTQAGDAARAAI  
AFSFFSILSWVALTVKALQRFRLGTDMSLFATEQLSTGASQAYPGYPVGSGVEGTETYQSPFFTETLDTSPKGYQ  
VPAY

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**FIGURE 466**

ATACGACTACACCTGCTCCGGAGCCCGCGGCGGTACCTGCAGCGGAGGAGCTCTGTCTTCCCCTTCATCTCACGC  
 GAGCCCGGCGTCCCGCCGCGTGCGCCCGGCGCAGCCCGCCAGTCCGCCCGGAGCCCGCCAGTCGCCGCGCTGC  
 ACGCCCGGGGTGAACCCCTCTGCCCTCGCTGGGACAGAGGGCCCCCGCAGCCGTC**ATG**CTTCCGCCATCTACACAG  
 TCCTGGCGGGACTGCTGTTCTCGCGCTCCTGGTGAACCTCTGCTGCCCATACTTCTTCCAGGACATAGGCTACT  
 TCTTGAAGGTGGCCGCGTGGGCCGAGGGTGCAGCTACGGGCAGCGCGCGCGCGCACCATCCTGCGGG  
 CGTTCCTGGAGAAAGCGCGCCAGACGCCACACAAGCCTTTTCTGCTCTTCCGCGACGAGACTCTCACCTACGCGC  
 AGGTGGACCGGCGCAGCAATCAAGTGGCCCGGCGCTGCACGACCACCTCGGCCTGCGCCAGGGAGACTGCGTGG  
 CGCTCCTTATGGGTAAAGAGCCGCGCTACGTGTGGCTGTGGCTGGGGCTGGTGAAGCTGGGCTGTGCCATGGCGT  
 GCCTCAATTACAACATCCGCGCAAGTCCCTGCTGCACTGCTTCCAGTGCTGCGGGGCGAAGGTGCTGCTGGTGT  
 CGCCAGAACTACAAGCAGCTGTGAAGAGATACTGCCAAGCCTTAAAAAGATGATGTGTCCATCTATTATGTGA  
 GCAGAACTTCAACACAGATGGGATTGACTCTTTCTGGACAAAGTGGATGAAGTATCAACTGAACCTATCCCAG  
 AGTCATGGAGGTCTGAAGTCACTTTTCCACTCCTGCCTTATACATTTATACTTCTGGAACACAGGTCTTCCAA  
 AAGCAGCCATGATCACTCATCAGCGCATATGGTATGGAAGTGGCCTCACTTTTGTAAAGCGGATTGAAGGCAGATG  
 ATGTCATCTATATCACTCTGCCCTTTTACCACAGTGCTGCACTACTGATTGGCATTACCGGATGTATTGTGGCTG  
 GTGCTACTCTTGCCTTGGCGACTAAATTTTACGCCAGCCAGTTTGGGATGACTGCAGAAAATACAACGTCACTG  
 TCATTCACTATATCGGTGAAGTGCCTTCGGTATTTATGCAACTCACCAAGAAACCAATGACCGTGATCATAAAG  
 TGAGACTGGCACTGGGAAATGGCTTACGAGGAGATGTGTGGAGACAATTTGTCAAGAGATTGGGGACATATGCA  
 TCTATGAGTTCTATGCTGCCACTGAAGGCAATATTGGATTTATGAATTATGCGAGAAAAGTTGGTGCTGTTGGAA  
 GAGTAAACTACCTACAGAAAAAATCATAACTTATGACCTGATTAAATATGATGTGGAGAAAGATGAACCTGTCC  
 GTGATGAAAATGGATATTGCGTCAGAGTTCCCAAAGGTGAAGTTGGACTTCTGGTTTGCAAAATCACACAACCTA  
 CACCATTTAATGGCTATGCTGGAGCAAAGGCTCAGACAGAGAAGAAAAAACTGAGAGATGTCTTTAAGAAAGGAG  
 ACCTCTATTTCAACAGTGGAGATCTCTTAATGGTTGACCATGAAAATTTTATCTATTTCCACGACAGAGTTGGAG  
 ATACATTCCGGTGGAAAGGGGAAAATGTGGCCACCACTGAAGTTGCTGATACAGTTGGACTGGTTGATTTGTCC  
 AAGAAGTAAATGTTTATGGAGTGCATGTGCCAGATCATGAGGGTCGCATTGGCATGGCCTCCATCAAAATGAAAG  
 AAAACCATGAATTTGATGGAAAGAACTCTTTACGACATTGCTGATTACCTACCTAGTTATGCAAGGCCCGGT  
 TTCTAAGAATACAGGACACCATTGAGATCACTGGAACCTTTAAACACCGCAAAATGACCCTGGTGGAGGAGGGCT  
 TTAACCCTGCTGTCATCAAAGATGCCTTGATTTCTTGGATGACACAGCAAAATGTATGTGCCTATGACTGAGG  
 ACATCTATAATGCCATAAGTGCTAAACCCCTGAAACT**TGAA**TATCCCAGGAGGATAACTCAACATTTCCAGAA  
 AGAAACTGAATGGACAGCCACTTGATATAATCCAACCTTAATTTGATTGAAGATTGTGAGGAAATTTTGTAGGAA  
 ATTTGCATACCCGTAAAGGGAGACTTTTTTAAATAACAGTTGAGTCTTTGCAAGTAAAAAGATTTAGAGATTATT  
 ATTTTTCAGTGTGCACCTACTGTTTGTATTTGCAAACTGAGCTTGTTGGAGGGAAGGCATTATTTTTTAAATAC  
 TTAGTAAATTAAATGAAC



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**FIGURE 467**

MLSAIYTVLAGLLFLPLLVLNCCPYFFQDIGYFLKVAAGRRVRSYGQRRPARTILRAFLEKARQTPHKPFLFR  
DETLTYAQVDRRSNQVARALHDHLGLRQGDCAVLLMGNEPAYVWLWLGLVKGCMACLNYNIRAKSLLHCFQCC  
GAKVLLVSPQLAAVEEILPSLKKDDVSIYYVSRTSNTDGIDSFLDKVDEVSTEPIPESWRSEVTFSTPALYIYT  
SGTTGLPKAAMITHQRIWYGTGLTFVSGLKADDVIYITLPPFYHSAALLIGIHGCIVAGATLALRTKFSASQFWDD  
CRKYNVTVIQYIGELLRYLCNSPQKPNDRDHKVRLALGNGLRGDVWRQFVKRFGDICIYEFYAATEGNIGFMNYA  
RKVGAVGRVNYLQKKIITYDLIKYDVEKDEPVRDENGVCVRVPKGEVGLLVCKITQLTPFNGYAGAKAQTEKKL  
RDVFKKGDLYFNSGDLLMVDHENFIYFHDRVGDTRWKGENVATTEVADTVGLVDFVQEVNVYGVHVPDHEGRIG  
MASIKMKENHEFDGKKLFQHIADYLP SYARPRFLRIQDTIEITGTFKHKMTLVEEGFNPAVIKDALYFLDDTAK  
MYVPMTEDIYNAISAKTLKL

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**FIGURE 468**

ATACGACTACACCTGCTCCGGAGCCCGCGGCGGTACCTGCAGCGGAGGAGCTCTGTCTTCCCCTTCATCTCACGC  
GAGCCCGGCGTCCCGCCGCGTGCGCCCGGCGCAGCCCGCCAGTCCGCCCCGAGCCCGCCAGTCGCCGCGCTGC  
ACGCCCCGGGGTGAACCTCTGCCCTCGCTGGGACAGAGGGCCCCGCAGCCGT**CATG**CTTTCCGCCATCTACACAG  
TCCTGGCGGGACTGCTGTTCTGCCGCTCCTGGTGAACCTCTGCTGCCATACTTCTTCCAGGACATAGGCTACT  
TCTTGAAGGTGGCCGCGCTGGGCCGAGGGTGCAGCTACGGGCAGCGGCGGCGCGCACCATCCTGCGGG  
CGTTCCTGGAGAAAGCGCGCCAGACGCCACACAAGCCTTTTCTGCTCTTCCGCGACGAGACTCTCACCTACGCGC  
AGGTGGACCGGCGCAGCAATCAAGTGGCCCGGCGCTGCAGCACCTCGGCCTGCGCCAGGGAGACTGCGTGG  
CGCTCCTTATGGGTAACGAGCCGGCCTACGTGTGGCTGTGGCTGGGCTGGTGAAGCTGGGCTGTGCCATGGCGT  
GCCTCAATTACAACATCCGCGCGAAGTCCCTGCTGCACTGCTTCCAGTGTGCGGGGCGAAGGTGCTGCTGGTGT  
CGCCAGAACTACAAGCAGCTGTGGAAGAGATACTGCCAAGCCTTAAAAAGATGATGTGTCCATCTATTATGTGA  
GCAGAACTTCTAACACAGATGGGATTGACTCTTTCCTGGACAAAGTGGATGAAGTATCAACTGAACCTATCCAG  
AGTCATGGAGGTCTGAAGTCACTTTTTCCACTCCTGCCTTATACATTTATACTTCTGGAACACAGGTCTTCCAA  
AAGCAGCCATGATCACTCATCAGCGCATATGGTATGGAACCTGGCCTCACTTTTGTAAGCGGATTGAAGGCAGATG  
ATGTCATCTATATCACTCTGCCCTTTTACCACAGTGTGCACTACTGATTGGCATTACGGATGTATTGTGGCTG  
GTGCTACTCTTGCCCTTGCGGACTAAATTTTACGCCAGCCAGTTTGGGATGACTGCAGAAAATACAACGCTCACTG  
TCATTCACTATATCGGTGAAGTGTTCGGTATTTATGCAACTCACCACAGAAACCAAATGACCGTGATCATAAAG  
TGAGACTGGCACTGGGAAATGGCTTACGAGGAGATGTGTGGAGACAATTTGTCAAGAGATTTGGGGACATATGCA  
TCTATGAGTTCTATGCTGCCACTGAAGGCAATATTGGATTTATGAATTATGCGAGAAAAGTTGGTGCTGTTGGAA  
GAGTAACTACCTACAGAAAAAATCATAACTTATGACCTGATTAAATATGATGTGGAGAAAGATGAACCTGTCC  
GTGATGAAAATGGATATTGCGTCAGAGTTCCCAAAGGTGAAGTTGGACTTCTGGTTTGCAAAATCACACAACCTTA  
CACCATTTAATGGCTATGCTGGAGCAAAGGCTCAGACAGAGAAGAAAAAACTGAGAGATGTCTTTAAGAAAGGAG  
ACCTCTATTTCAACAGTGGAGATCTCTTAATGGTTGACCATGAAAATTTTATCTATTTCCACGACAGAGTTGGAG  
ATACATTCCGGTGGAAAGGGGAAAATGTGGCCACCACTGAAGTTGCTGATACAGTTGGACTGGTTGATTTGTCC  
AAGAAGTAAATGTTTATGGAGTGCATGTGCCAGATCATGAGGGTCGCATTGGCATGGCCTCCATCAAAATGAAAG  
AAAACCATGAATTTGATGGAAAGAACTCTTTCAGCACATTGCTGATTACCTACCTAGTTATGCAAGGCCCGGT  
TTCTAAGAATACAGGACACCATTGAGATCACTGGAACTTTTAAACACCGCAAAATGACCCTGGTGGAGGAGGGCT  
TTAACCTGCTGTCATCAAAGATGCCTTGATTTCTTGGATGACACAGCAAAAATGTATGTGCCTATGACTGAGG  
ACATCTATAATGCCATAAGTGCTAAAACCTGAAACT**TGA**ATATTCCAGGAGGATAACTCAACATTTCCAGAA  
AGAACTGAATGGACAGCCACTTGATATAATCCAACCTTAATTTGATTGAAGATTGTGAGGAAATTTGTAGGAA  
ATTTGCATACCCGTAAAGGGAGACTTTTTTAAATAACAGTTGAGTCTTTGCAAGTAAAAAGATTTAGAGATTATT  
ATTTTTCAGTGTGCACCTACTGTTTGTATTTGCAAACTGAGCTTGTGGAGGGAAGGCATTATTTTTTAAATAC  
TTAGTAAATTAAATGAAC

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**FIGURE 469**

MLSAIYTVLAGLLFLPLLVLNLCPPYFFQDIGYFLKVAAGRRVRSYGQRRPARTILRAFLEKARQTPHKPFLLFR  
DETLTYAQVDRRSNQVARALHDHLGLRQGDVALLMGNEPAYVWLWLGLVKLGCAMACLNYNIRAKSLLHCFQCC  
GAKVLLVSPQLQAAVEEILPSLKKDDVSIYYVSRTSNTDGDIDFVLDKVDEVSTEPIPESWRSEVTFSTPALYIYT  
SGTTGLPKAAMITHQRIWYGTGLTFVSGLKADDVIYITLPPFYHSAALLIGIHGCIVAGATLALRTKFSASQFWDD  
CRKYNVTVIQYIGELLRYLCNSPQKPNDRDHKVRLALGNGLRGDVWRQFVKRFGDICIYEFYAATEGNIGFMNYA  
RKVGAVGRVNYLQKKIITYDLIKYDVEKDEPVRDENGVCVRVPKGEVGLLVCKITQLTPFNGYAGAKAQTEKKL  
RDVFKKGDLYFNSGDLLMVDHENFIYFHDRVGDTRWKGENVATTEVADTVGLVDFVQEVNVYGVHVPDHEGRIG  
MASIKMKENHEFDGKKLFQHIADYLPYARPRFLRIQDTIEITGTFKHKMTLVEEGFNPAVIKDALYFLDDTAK  
MYVPMTEDIYNASAKTLKL

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**FIGURE 470**

CTCTCTCTCTATCTCTCTCAGAAATGACAATTCTAGGTACAACTTTTGGCATGGTTTTTTCTTTACTTCAAGTCGT  
TTCTGGAGAAAGTGGCTATGCTCAAAATGGAGACTTGGAAGATGCAGAACTGGATGACTACTCATTCTCATGCTA  
TAGCCAGTTGGAAGTGAATGGATCGCAGCATTCACTGACCTGTGCTTTTGAGGACCCAGATGTCAACACCACCAA  
TCTGGAATTTGAAATATGTGGGGCCCTCGTGGAGGTAAAGTGCCTGAATTTCAGGAAACTACAAGAGATATATTT  
CATCGAGACAAAGAAATCTTACTGATTGGAAAGAGCAATATATGTGTGAAGGTTGGAGAAAAGAGTCTAACCTG  
CAAAAAATAGACCTAACCACTATAGTTAAACCTGAGGCTCCTTTTGACCTGAGTGTCTATCGGGAAGGAGC  
CAATGACTTTGTGGTGACATTTAATACATCACACTTGCAAAAGAAGTATGTAAAAGTTTTAATGCATGATGTAGC  
TTACCGCCAGGAAAAGGATGAAAACAAATGGACGCATGTGAATTTATCCAGCACAAAGCTGACACTCCTGCAGAG  
AAAGCTCCAACCGGCAGCAATGTATGAGATTAAAGTTCGATCCATCCCTGATCACTATTTTAAAGGCTTCTGGAG  
TGAATGGAGTCCAAGTTATTACTTCAGAACTCCAGAGATCAATAATAGCTCAGGGGAGATGGATCCTATCTTACT  
AACCATCAGCATTTTGAGTTTTTTCTCTGTCGCTCTGTTGGTCATCTTGGCCTGTGTGTTATGGAaaaaaAGGAT  
TAAGCCTATCGTATGGCCAGTCTCCCCGATCATAAGAAGACTCTGGAACATCTTTGTAAGAAACCAAGAAAAA  
TTTAAATGTGAGTTTCAATCCTGAAAGTTTCCTGGACTGCCAGATTATAGGGTGGATGACATTCAAGCTAGAGA  
TGAAGTGAAGGTTTTCTGCAAGATACGTTTCCTCAGCAACTAGAAGAATCTGAGAAGCAGAGGCTTGGAGGGGA  
TGTGCAGAGCCCCAACTGCCCATCTGAGGATGTAGTCGTCACTCCAGAAAGCTTTGGAAGAGATTATCCCTCAC  
ATGCCTGGCTGGGAATGTGAGTGCATGTGACGCCCTATTCTCTCCTCTTCCAGGTCCCTAGACTGCAGGGAGAG  
TGGCAAGAATGGGCCTCATGTGTACCAGGACCTCCTGCTTAGCCTTGGGACTACAAACAGCACGCTGCCCCCTCC  
ATTTTCTCTCCAATCTGGAATCCTGACATTGAACCCAGTTGCTCAGGGTCAGCCCATTCTTACTTCCCTGGGATC  
AAATCAAGAAGAAGCATATGTACCATGTCCAGCTTCTACCAAACCAGTGAAGTGTAAAGAAACCCAGACTGAAC  
TTACCGTGAGCGACAAAGATGATTTAAAGGGAAGTCTAGAGTTCCCTAGTCTCCCTCACAGCACAGAGAAGACAA  
AATTAGCAAAACCCCACTACACAGTCTGCAAGATTCTGAAACATTGCTTTGACCACTCTTCCCTGAGTTCAGTGGC  
ACTCAACATGAGTCAAGAGCATCCTGCTTCTACCATGTGGATTGGTCAACAAGGTTTAAGGTGACCCAATGATTC  
AGCTATTT

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**FIGURE 471**

MTILGTTFGMVFSLLQVVSGESGYAQNGDLEDAELDDYSFSCYSQLEVNGSQHSLTCAFEDPDVNTTNLEFEICG  
ALVEVKCLNFRKLQEIYFIETKKFLLIGKSNICVKVGEKSLTCKKIDLTITVKPEAPFDLSVIYREGANDFVVTF  
NTSHLQKKYVKVLMHDVAYRQEKDENKWITHVNLSSSTKLTLQKRLQPAAMYKIKVRSIPDHYFKGFWSEWSPSY  
FRTPEINNSSGEMDPILLTISILSFFSVALLVILACVLWKKRIKPIVWPSLPDHKKTLEHLCKKPRKNLNVSNP  
ESFLDCQIHRVDDIARDEVEGFLQDTFPQLESEKQRLGGDVQSPNCPSEDVVVTPESFGRDSSLTCLAGNVS  
ACDAPILSSSRSLDCRESGKNGPHVYQDLLLLSLGTTNSTLPPFSLQSGILTLPVQAQGPILTSLGSNQEEAYV  
TMSSFYQNQ

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**FIGURE 472**

GCCCAGACCTATGGATTGAAAGCGTGTGCTTTACCCATCTGCTGTCTTGCTCCATCTGAGACCAGAGCCAAGATC  
TGCCAGGACTGGAATGCTTTCCCGAGTGGCTTGAGTTGGAGCCTGGGACTAGGAGCAGCCTTATTGAGGTACAA  
TTCATGTGCTTGTGGGTTTGGATGGCACAATCTGTGTCTGGGCTAAGGAAAGCAGACTTGGCACCAACATTAACC  
CTGACAGATCCAGGCATCTATTCCAGGAACTGGAAGCCAAGCGCAACAGGTGCTTGGAGGTCATC**ATGATCAGCC**  
CAGACCCCAGGCCCTCCCTGGCTTGGCCCGGTGGGCTGAGAGCTATGAGGCCAAGTGTGAGCGCAGGCAAGAGA  
TCCGTGAAAGCCGCCGCTGCCGTCCCAATGTGACCACTTGCCGCCAGGTGGGGAAGACGCTGAGGATCCAACAGA  
GAGAGCAGCTCCAGAGAGCTCGACTGCAGCAGTTCTTCAGGAGGAGGAACCTGGAGCTAGAGGAGAAGGGCAAG  
CGCAGCATCCCCAGGCCAGGGAGCAAGGGCCCTCCAGGCGGCCAGGACAGGTGACAGGCACCAGCTCTGAAGTCT  
TTCCAGCCCAGCATCCTCCTCCTCAGGCATCTGCAGGGATCTGTCTGACCACCTCTCCTCACAGGCTGGGGGCC  
TTCTCCACAGGACACTCCCATCAAGAAGCCACCCAAACACCACCGTGGTACTCAGACAAAGGCAGAAGGACCAA  
CAATTAAGAACGATGCCAGTCAGCAAACCAATTACGGAGTTGCAGTTCTGGATAAGGAAATCATCCAGCTTTCTG  
ATTACCTCAAAGAGGCCCTACAAAGGGAGCTGGTCCTAAAAACAGAAAATGGTGATTCTCCAAGACCTACTGTCCA  
CTCTGATTACAGCCTCTGACAGCTCTTGGAAGGGACAGCTTAATGAAGACAACTGAAGGGGAACTGAGATCCT  
TAGAAAACCAGCTATACACCTGTACCCAGAAATACTCCCCCTGGGGAATGAAAAAGTACTACTGGAGATGGAAG  
ACCAGAAAAACAGCTATGAGCAGAAGGCCAAGGAGTCACTGCAGAAAGTGCTGGAGGAGAAAATGAATGCAGAGC  
AGCAACTACAGAGCACACAGCGATCCCTGGCCCTGGCAGAGCAGAAGTGTGAAGAGTGGAGGAGCCAGTATGAGG  
CTCTGAAGGAGGACTGGAGGACCCTTGGGACCCAGCACAGGGAGCTGGAGAGCCAACCTCCACGTGCTTCAGTCCA  
AACTGCAGGGAGCAGATAGCAGGGACTTACAGATGAACCAGGCCCTGCGATTTTTGGAAAATGAGCACCAGCAAC  
TGCAGGCCAAGATTGAATGCCTGCAAGGGGACAGAGACCTGTGCAGCTTGATACCCAGGACCTACAAGATCAAC  
TAAAAAGGTCAGAGGCAGAGAACTCACCTGGTGACCAGAGTACAGCAGTTGCAGGGTTTGCTTCAAATCAAT  
CCTTACAGCTTCAAGAACAGGAGAACTCTTAACAAAGAAAGATCAGGCTTTGCCCGTGTGGAGTCCAAAGTCCT  
TCCCTAACGAAGTGGAGCCTGAGGGTACAGGGAAGGAGAAAGACTGGGATCTCAGAGACCAGCTGCAAAAGAAGA  
CTTTGCAGCTCCAGGCCAAGGAAAAGGAGTGCAGAGAACTGCATTGAGAATTAGACAACCTCAGTGACGAGTATC  
TCTCCTGCCTGCGTAAGCTGCAGCACTGTGAGAAGAGCTGAACCAGAGCCAGCAGCTGCCTCCAGAAGGCAAT  
GTGGGCGATGGCTCCAGTGCTGATGGTGGTGATTGCTGCAGCACTGGCAGTGTTCTGGCCAATAAAGACAACC  
TGATGATC**TGAA**ATAATTTGTGACAACCTGCCTTGGGTGAAAAATCAGAAGCAAGCAACTCAGCGAAAACTCAGAAG  
GTTTGGGTACATTACAGCTTGGGTTTTCCAACCTGACTTAGGATTTCTGACTTTTTTATTAATTTCTTAACCTACTG  
TAAATAAACTTCACCTGACCAGATTGTTCTCA

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**FIGURE 473**

MISPDPRPSPGLARWAESYEAKCERRQEIRESRRCPNVTTTCRQVGKTLRIQQREQLQRARLQQFFRRRNLELEE  
KGKAQHPQAREQGPSRRPGQVTGTSSEVFPAQHPPPSGICRDLSDDLSSQAGGLPPQDTP IKKPPKHHRGTQTKA  
EGPTIKNDASQQTNYGVAVL DKEIIQLSDYLKEALQRELVLKQKMVILQDLLSTLIQASDSSWKGQLNEDKLK GK  
LRSLENQLYTCTQKYS PWGMKKV LLEMEDQKNSYE QKAKESLQKVLEEKMNAEQQLQSTQ RSLALAEQKCEEWRS  
QYEALKEDWRTLGTQHRELESQ LHVLSKLQGADSRDLQMNQALRFLENEHQQLQAKIECLQGDRDLCSLDTQDL  
QDQLKRSEAEKLT LVTRVQQLQGLLQNSQLQEQEKLLTKKDQALPVWSPKSFPNEVEPEGTGKEKDWDLRDQL  
QKKTLLQLAKEKECRELHSELNLSDEYLSCLRKLQHCREELNQSQQLP PRRQCGRWLPVLMVVIAAALAVFLAN  
KDNLMI

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**FIGURE 474A**

GGCTCCAGCTCCAGCAGCCATGGCGCCTTGTGCAGCCTCCTTTGTGGGTGGAGAAGAGCTCAGCCAACCTTGGAT  
GGAGCGTCGGTGAAGCAAGAGCTCAGAGGGGAGAGGGCTGGCCTGGCATGACCGTCGCCAGTCCCCCACCTGG  
CTGGGTGATGTCCCCCGCCCGGTTCTGGGGCCCCCTTGGCAGTACCATGGAGCAACTGACAACCTCCCACGGC  
CTGGGGACCTTGAGCCATGGAGCCATGGGCACTGCCACCTGGCATAGCTGGACTCCAGGTCGAGGGGTGAAC  
CTAGCAGTGCAGCCCCAAGCATCGCTGATACTCCTCCGGCAGCTCTGCAGCTTCAAGAACTGAGGTCTGAGGAGA  
GTTCCAAGCCCAAAGGAGACGGGAGCTCCAGGCCCGTGGGGGAACTGACCCTGAAGGAGCAGAGGCTTGTCTGC  
CCAGCCTGGGCCAGCAAGCATCCAGCTCTGGACCCGCTGCCAGAGGCCAGAGGATGAGGAAGTGGAGGCTTTCC  
TGAAGGCCAAGCTGAATATGAGCTTTGGGGACAGGCCCAATCTGGAGCTGCTGAGGGCCCTGGGGGAGCTGCGGC  
AGCGCTGTGCCATCCTTAAGGAGGAAAACCAGATGCTGAGGAAGAGCAGCTTCCCTGAGACAGAAGAGAAGGTGC  
GGAGGCTGAAGCGGAAGAACGCCGAGCTGGCGGTCAATTGCCAAGCGCTGGAGGAGAGGGCCGAAAGCTGCAGG  
AAACGAACCTGAGGGTGGTGAAGTCCCCCTTGCCCCGGCCGGGGACCAGCTTGGAGTTGTGTCGGAAGGCCCTAG  
CCCCCAGCGAGCCCGGGACCTCAGTGAGACAGCCAGTGCACTGCTGGCCAAGGACAAGCAGATTGCTGCCTTGC  
AGCGGGAGTGCAGGGAGCTGCAGGCCAGGCTCACTCTGGTGGGCAAGGAGGTTCCCCAGTGGCTCCACGTGCGGG  
ACTTCGATCGGCTGCTGCGCGAGTCCCAGCGGGAGGTGCTGCGGCTGCAGAGGCAGATCGCGCTGCGCAACCAGC  
GGGAGACGCTCCCGCTCCCGCCGCTCTGGCCCCCGGGCCCTGCTCTCCAGGCCAGAGCAGGGGCGCCTGCTCCCC  
GGGCCCCGGGAGAGGCCACGCCCCAGGAGGATGCGGACAACCTACCCGTGATTCTAGGGGAGCCAGAGAAAGAGC  
AGAGGGTGCAGCAGCTGGAATCGGAGCTCAGCAAGAAGCGGAAGAAATGCGAGAGCCTGGAGCAGGAAGCCCCGA  
AAAAGCAGAGGCGATGTGAGGAGCTGGAATGCAGCTGAGACAAGCGCAGAATGAGAATGCCCGCCTGGTGGAGG  
AGAACTCCCGGCTCAGTGGGAGAGCCACAGAGAAGGAGCAGGTGGAGTGGGAGAATGCGGAGCTGAGGGGGCCAGC  
TCCTGGGGGTGACACAGGAGAGGGACTCAGCCCTTCGCAAGAGCCAGGGCCTGCAGAGCAAGCTGGAGAGCCTGG  
AGCAAGTGCTGAAGCACATGCGGGAGGTGGCCCAGCGCGGCAGCAGCTGGAGGTGGAGCATGAACAGGCTCGGC  
TCAGCCTACGGGAGAAGCAGGAGGAGGTCCGGAGACTGCAGCAGGCCCAGGCTGAAGCCCAGAGGGAACATGAAG  
GAGCCGTGCAGCTGCTGGAGTCTACCTTGGATTCCATGCAGGCCCGGGTTCGAGAGCTCGAAGAACAGTGCCGCA  
GCCAAACCGAGCAGTTCAGCCTCCTGGCACAAGAACTCCAGGCTTTCCGCTGCACCCGGGCCCTTGGATCTGC  
TCACATCTGCCCTGGACTGTGGGAGCCTTGGAGACTGCCACCACCCCCCTGCTGCTGCTCCATTCCCCAGCCTT  
GCCGGGGGTCTGGCCCCAAAGACCTTGACCTCCCGCCGGGCTCCCCCTGGGCGCTGCACCCCAAAGTCTTCCGAGC  
CTGCCCCCTGCCACTCTCACTGGGGTCCCTCGAAGGACAGCCAAGAAGGCAGAGTCTCTCTCCAATCCTCCCCT  
CCGAGTCCATCCACAACAGCCCCAAGTCATGCCCTACACCTGAGGTGGACACAGCCAGTGAGGTAGAGGAGCTGG  
AGGCAGACAGTGTCTCCCTGCTCCCAGCTGCGCCAGAGGGCAGCCGGGGAGGAGCCAGGATCCAGGTCTTCTAG  
CACGTTATAGCTACAACCCCTTTGAGGGTCCCAATGAGAATCCAGAAGCAGAGCTTCCGCTGACAGCTGGCGAGT  
ACATCTACATCTATGGCAACATGGATGAGGATGGCTTTTTTGAAGGAGAGCTCATGGATGGCCGAAGGGGCTGG  
TCCCTTCCAATTTTGTAGAGCGTGTGTCGGATGATGACCTCCTGACCTCCCTCCCTCCAGAGCTGGCCGATTGT  
CCCACAGCTCAGGCCCTGAAGTCACTTTCCTGAGTGTAGGTGGGGGTGGCAGCAGTAGCGGGGGCCAAAGCAGTG  
TGGGAAGGAGCCAGCCAGACCTGAGGAGGAGGATGCAGGGGACGAGCTCAGTCTGAGCCCATCACCGGAGGGCC  
TGGGCGAGCCTCCTGCCGTGCCTTACCCCCCGCTCTGGTGGTCTCAAGCAGCTGGCCACAGCGTGGTGTCTGG  
CCTGGGAGCCGCTCCTGAGCAAGTGGAGCTACACGGCTCCATATCTGTGTGAATGGGGAGCTGCGACAGGCCC  
TGGGGCCTGGGGCGCCACCCAAGGCCGTGCTGGAGAACCTGGACCTGTGGGCCGGGGCCCTTCACATTCTGTCC  
AGGCCCTGACTAGCCGGGCGAGCTCTGACCCACTGCGCTGTTGCTTGGCGGTGGGTGCCGGGGCCGGAGTGGTGC  
CCAGCCAGCTGCGGGTCCATCGGTTGACAGCCACATCTGCTGAGATCACCTGGGTGCCCCGCAATAGCAACTTGG  
CCCATGCCATCTACCTCAATGGGGAAGAATGCCACCTGCCAGCCCCAGTACCTACTGGGCCACCTTCTGCCACT  
TACGGCCTGGCACACCCTATCAGGCCCAAGTGGAGGCTCAGCTCCCACCCCAAGGGCCCTGGGAACCAGGCTGGG  
AGAGGCTGGAGCAGCGGGCTGCCACCCTGCAGTTACCCACACTCCCAGCAGGCCACCTGATGCCCTCTGGATG  
TGCAGATCGAGCCTGGGGCCCTCCCCTGGGATCTTGATCATCAGTTGGCTCCCAGTACCATCGATGCTGCTGGCA  
CATCCAACGGTGTCCGGGTACAGGCTATGCCATCTACGCTGATGGGCAGAAGATCATGGAGGTGGCCTCACCCA  
CGGCAGGCAGTGTACTGGTGGAGTTGTCCAGCTGCAGCTGCTGCAGGTGTGTCGTGAGGTGGTCTGTCGCACCA  
TGTCGCCCCACGGGGAGTCGGCGGACTCCATCCCGGCTCCTATCACTCCCGCCCTGGCTCCGGCCAGCCTGCCAG  
CCCGAGTCTCTGCCCTCACCGCACCCAAGCCCAGAGGCCAGAGCGCCCCTTGCTTACGCTCCCCAGGGCCTG  
GAGACCCAGCTCTCTCTCCAGCACCTGCTCCCCCTTGGAATCAAGAGCCTCCAGGAGCACCCCTGCAAGCC



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**FIGURE 474B**

CTTCCAGAGAGATGGCAAAGGGTCCACGAGGACCTCCAGCACCTTGCTCCCAGGAGGAGGCTGGGGCAGCAG  
TGCTGGGCACCTCAGAGGAGAGGACAGCCAGCACATCTACCCTGGGTGAGAAGGACCCTGGCCCCGAGCTCCCT  
CACTGGCCAAGCAGGAGGCCGAGTGGACTGCAGGAGAGGCCTGTCCGGCCTCCAGCTCCACCCAGGGAGCACGGG  
CCCAGCAGGCGCCAAATACCGAGATGTGCCAAGGAGGAGACCCAGGGTCTGGGCTGAGGCCAGGGCTGAGAAGG  
AGGACACAGCAGAGCTTGGGGTTCATCTGGTGAACCTCCCTCGTGGACCACGGCCGCAACTCAGACCTGTCAGACA  
TCCAGGAGGAAGAGGAAGAGGAGGAGGAGGAGGAAGAGGAGCTGGGTTCAGGACTTGCTCCTTCCAGAAGC  
AGGTTGCTGGCAACAGCATCAGGGAGAATGGGGCCAAGTCCCAGCCCGACCCCTTTTGTGAGACTGACAGCGATG  
AGGAGATCTTGGAGCAGATCCTGGAGCTGCCCCCTCCAGCAGTTCTGTAGCAAGAAGCTCTTTAGCATCCCGGAGG  
AGGAGGAAGAGGAAGAGGAGGACGAGGAGGAGGAGAAGTCTGGGGCAGGCTGTTCTTCCCGAGACCCTGGCCCCG  
CTGAACCTGCATTGCTGGGGCTGGGCTGTGACAGTGGTCAGCCCCGAAGACCTGGCCAGTGTCCCTTGTCTCCTG  
AGTCTCCAGGGCTGGAGACTGCCTGGAAGACATGCCTGGATTAGTTGGTGGAAAGCAGCCGGAGGAGAGGAGGGG  
GCTCCCCCTGAGAAGCCCCAAGCCGAGGCGGCCTCCAGATCCCCGAGAACACTGCAGCCGACTTCTCAGCAACA  
ATGGGCCCCAGGCCTCTGGACGACTGGGCCCCACACGGGAGAGGGGTGGCCTCCCCGTAATTGAGGGCCCCAGGA  
CTGGACTAGAGGCTAGCGGGAGAGGCCGGCTGGGCCCTTCCCGGAGGTGCTCCCGTGGCCGGGCGCTGGAGCCTG  
GCCTGGCCAGCTGCCTTTCCCCCAAGTGCTTGGAAATCAGCATTGAATATGATTTCGGAGGATGAGCAGGAGGCCG  
GCAGCGGGGGCATCAGCATCACCAGCTCCTGCTACCCTGGAGATAGGGAGGCCTGGGGCACAGCAACTGTAGGAA  
GGCCCAGGGGGCCTCCGAAGGCCAATTCAGGCCCAAGCCCTACCCACGCCTCCCAGCCTGGGAGAAAGGGGAAC  
CAGAGCGGAGAGGCCGCGAGTGCAGCGGGCAGAGCCAAGGAGCCACTCTCCCGGGCAACAGAGACCGGAGAGGCCA  
GAGGGCAGGACGGCTCTGGGCGGAGGGGCCCCCAGAAGAGAGGTGTCCGAGTCTCAGGCCAAGCACTGCAGAGC  
TAGTCCCTGCGAGGAGCCCCCTCAGAAACACTGGCTTACCAGCACCTACCCGTCAGGATCTTTGTGGCTCTGTTTG  
ACTATGACCCCGTGTCAATGTGCCCCAATCCTGATGTGAGAGAAGAAGAGCTTCCCTTCCGAGAGGGTCAGATCC  
TGAAGGTGTTTGGGGACAAGGATGCCGATGGCTTCTACCAGGGCGAAGGTGGGGGCCGGACAGGCTACATTCCCT  
GCAACATGGTGGCTGAGGTGGCTGTGGACAGCCCTGTGGGAGACAGCAACTGCTCCAGCGGGGTATTGTGCC  
CAGATATTCTCCTTGAGGGCTCAGGGAATGGTCCGTTTGTGTACTCCACAGCCACACAACCTGGGCCTCCTCCCA  
AGCCCCGCGCTCCAAGAAAGCTGAGTCGGAAGGCCCTGCCAGCCCTGTCCAGGCCCCCTAAGCTGGTCCCTT  
CTGCTGACCTGAAAGCTCCCCACTCCATGGTGGCTGCATTTGACTACAACCCCCAGGAGAGTTCCCCCAATATGG  
ACGTGGAGGCAGAGCTGCCCTTCCGGGCAGGGGATGTCATTACTGTGTTTGGGGCATGGACGATGACGGTTTCT  
ACTATGGGGAATTAAATGGACAAAGGGCCTGGTTCCATCCAACCTTCTGGAGGGCCCTGGGCCTGAGGCAGGCG  
GCCTGGACAGGGAACCCAGGACACCCAGGCTGAGAGTCAGAGAACGAGGAGGAGAAGAGTCCAGTGCTAGATGG  
AGATAGATATATGTAGAGAGAGCAACATGACTGGGGCTGCACCACACAAGGGTCCCCAGGGCCCCCAGGTGGGCC  
TTGTACCCCCAGCTCTGGCAGCGCCCCAGGATTGAACGTGGGGAGCCCCAGGGCAGAAGCGAGAAGGTGTGGGT  
TTTTTTCCAAGGGGAAGCAGCTCCTCAGGAGGATGGGCTCTGGGAAGAAGGAGTGAAGCTGTGGCCCATCCTGCA  
GGCAGAAGAGGCCCTGAGAGGCCCCAGATCACTGTTTTTGTGAGCAGGGAAGGCTCAGAATGGGCCCCAGAGCC  
CCCGTTCTTTTGCCTTAACACTGTGGCATTGAGAGGGAATCAAAGAGCCTTGGTGAAGGTCAGAGCTAAATGGCT  
CCTTAAGGATGAACTTTTAGAGAAGCACCTTCTCCTACAGGAGGGGAACTGAGCCACAGTGAGTATGTAAC  
TTGACCAAGGTCAGTGAGCCAGGACTGGACCCAGGACCCTCGCGTCTGGTCCACCCACCTCGTCTACTAGTGT  
CCACAGTGCTGCGCTAGTCCCTTTTGCCACCCTTCCCAGTCCCAGGACGGGCCCTGGAGGGAGAAAGGAGCCTGT  
GCCCCCTGATGGCTCTGGCTGTCTGTATCCTGTCTTCCCTCCCCTGAAGGAAAGTTTGCAGTGGATTTTATTGGA  
GCCCCATCTCCCAGCGGGCAGGCGGGCGGAGCCTGTATATATGTATATACTCAGTGCCTCAGTTCAGCTTCCCT  
CACCTCGCTTCCACTGCACAGGCCCAGGAAGGAGAAAGGCCAAGCCAAAGTGGGCCCCACCCTGCCCCCGTCGTG  
CTCCATCCTTCCCTGCCGGGGCCTGTGGCCCCGTAAAGGTCCCGCCCCCAAAGACCCTGGGGCCAGCGGGGGCCG  
AAAGCGGAGTTGGGTTTGCTTATTTTGCTCATTGGATTCAAGTTCTTTTGCATAGTTTTTTTCTAACCCCTGTTG  
GAGTCCAGGGGCTGGAGAAAAGGACAGATTTATGCAGCTATTTTCATACATTCCCTGTTTCAGAGTGGGGTAGGGG  
TTTTCCGCCGTTACCCGATCCAATCCATCCCCCACCCCTTGAGGGGTGAGTGTGTCTTTGCATGTTTCTTTGCT  
GTGGTGGGAGATAGTTTGACTGAACCCCCACCTTGACCTTGGTCTCCAGGGGTGTGGAATGGTGGGGGAATTTGT  
TTAAAAAGACATTTTATTATAATAAAGTCTATTTTCACAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 475**

MEQLTTLP RP GD P GAME P WAL P TWHS WTP GRG GEPSSAAPSIADTPPAALQLQELRSEESSKPKGDGSSRPVGGT  
DPEGAEACLP SLGQQASSSGPACQRPEDEEVEAF LKAKLNMSFGDRPNLELLRALGELRQRCAILKEENQMLRKS  
SFPETEEKVRR LKRKNAELAVIAKRLEERARKLQETNLRVVSAPLP RP GTSLELCRKALARQRARDLSETASALL  
AKDKQIAALQRECRELQARLT LVGKEGPQWLHV RDFDRLLRESQREVLRLQRQIALRNQRETLP LPPSWPPGPAL  
QARAGAPAPGAPGEATPQEDADNLPVILGEPEKEQ RVQQLSELSKRRKKCESLEQEARKQRRCEELELQLRQA  
QENARLVEENSRLSGRATEKEQVEWENAE LRGLLGVTQERDSALRKSQGLQSKLESLEQVLKHMREVAQRRQQ  
LEVEHEQARLSLREKQEEVRR LQQAQAEAREHEGAVQLLESTLDSMQARVRELEEQCRSQTEQFSLLAQELQAF  
RLHPGFLDLLTSALDCGSLGDCPPPPCCCSIPQPCRGSGPKDLDLP PGSPGRCTPKSSEPAPATLTGVPRRTAKK  
AESLSNSSHSESIHNSPKSCPTPEVDTASEVEELEADSVSLLPAAPEGSRGGARIQVFLARYSYNPFEGPNENPE  
AELPLTAG EYIYIYGNMDE DGFEGELMDGRRGLVPSNFVERVSDDDLTSLPPELADLSHSSGPELSF LSVGGG  
GSSSGGQSSVGRSQPRPEEEDAGDELSLSPSPEGLGEPPAVPYPRRLVVLKQLAHSVVLAWEPPEQVELHGFHI  
CVNGELRQALGPGAPPKAVLENLDLWAGPLHISVQALTSRGSSDPLRCC LAVGARAGVVP SQLRVHRLTATS AEI  
TWVPGNSNLAHAIYLN GEECPASPSTYWATFCHLRPGTPYQAQVEAQLPPQGPWEPGWERLEQRAATLQFTTLP  
AGPPDAPLDVQIEPGPSGILII SWLPVTIDAAGTSNGVRVTGYAIYADGQKIMEVASPTAGSVLVELS QLQLLQ  
VCREVVVRTMSPHGESADSIPAPITPALAPASLPARVSCPSPHPSPEARAPLASASPGPGDPSSPLQHPAPLGTQ  
EPPGAPPASPSREMAKGS HEDPPAPCSQEEAGAAVLGTSEERTASTSTLGEKDPGPAAPSLAKQEA EWTAG EACF  
ASSSTQGARAQQAPNTEMCQGDPGSGLRPRAEKEDTAE LGVHLVNSLVDHGRNSDLSDIQEEEEEEEEEEEEEL  
GSRTCSFQKQVAGNSIRENGAKSQDPFCETDSDEEILEQILELPLQQFC SKKLF SIPEEEEEEEEEEEEEKSGA  
GCSSRDPGPPEPALLGLGCD SGQPRRPGQCPLSPESSRAGDCLEDMPGLVGGSSRRRGGSPEKPPSRRRPPDPR  
EHCSRLLSNNGPQASGR LGPTRERGGLPVIEGPRTGLEASGRGRLGPSRRCSRGRALEPGLASCLSPKCLEISIE  
YDSEDEQEAGSGGISITSSCYPGDREAWGTATVGRPRGPPKANS GPKPYPRLP AWEKGEPERRGRSATGRAKEPL  
SRATETGEARGQDGSRRGPQKRGVRVLRPSTAE LVPARSPSETLAYQHLPVRIFVALFDYDPVSMSPNP DAGEE  
ELPFREGQILKVFGDKDADGFYQGE GGGRTGYIPCNMVAEVAVDSPAGRQQLLQRGYLSPDILLEGSGNGPFVYS  
TAHTTGPPPKPRRSKKA ESEGPAQPCPGPKLVPSADLKAPHSMVA AFDYNPQESSPNMDVEAELPFRAGDVITV  
FEGMDDDFY YGELNGQRGLVPSNFLEGPGEAGGLDREPRTPQAESQRTRRRRVQC

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**FIGURE 476**

ACCACTGCTGGCTTTTTGCTGTAGCTCCACATTCCTGTGCATTGAGGGGTAAACATTAGGCTGGGAAGATGACAA  
AACTTGAAGAGCATCTGGAGGGAATTGTCAATATCTTCCACCAATACTCAGTTCGGAAGGGGCATTTTGACACCC  
TCTCTAAGGGTGAGCTGAAGCAGCTGCTTACAAAGGAGCTTGCAAACACCATCAAGAATATCAAAGATAAAGCTG  
TCATTGATGAAATATTCCAAGGCCTGGATGCTAATCAAGATGAACAGGTCGACTTTCAAGAATTCATATCCCTGG  
TAGCCATTGCGCTGAAGGCTGCCCATTACCACACCCACAAAGAGTAGGTAGCTCTCTGAAGGCTTTTTACCCAGC  
AATGTCCTCAATGAGGGTCTTTTCTTTCCCTCACCAAAACCCAGCCTTGCCCGTGGGGAGTAAGAGTTAATAAAC  
ACACTCACGAAAAGTT

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**FIGURE 477**

MTKLEEHLEGIVNIFHQYSVRKGFDTLSKGELKQLLTKE  
LANTIKNIKDKAVIDEIFQGLDANQDEQVDFQEFI  
SLVAIALKAAHYHKE

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**FIGURE 478**

TGAATTCGGGAAGCGCCGAGCGGCGGATCCGGCGGCTGCTGCAGCCCCGGGCGGCTGCCGAGAAGGAGGGAGGGG  
AAACACAAAGCCGGCTACGCGCTGCGAGATAACAAGAGTAATCCACAGACTTAAAAC**ATG**AGCTCAGATGCCAGC  
CAAGGCGTGATTACCACTCCTCCTCCTCCAGCATGCCTCACAAAGAGAGATATTTGACCGCATCAATGAAAAAT  
GACCCAGAATACATTAGGGAGAGGAACATGTCTCCTGATCTACGACAAGACTTCAACATGATGGAGCAGAGGAAA  
CGAGTTACTCAGATCCTGCAAAGTCCTGCCTTTTCGGGAAGACTTGGAATGCCTTATTCAAGAACAGATGAAGAAA  
GGCCACAACCCAACTGGATTACTAGCATTACAGCAGATTGCAGATTACATCATGGCCAATTCTTTCTCGGGTTTT  
TCTTCACCTCCTCTCAGTCTTGCGATGGTCACACCTATCAATGACCTTCCTGGTGCAGATACATCCTCATATGTG  
AAGGGAGAAAACTTACTCGCTGTAACTTGCCAGCCTGTACAGACTTGTAGACTTGTTTGGATGGGCACACCTG  
GCAAATACCTATATCTCAGTAAGAATAAGTAAGGAGCAAGACCACATTATAATAATTCCCAGAGGCCTATCTTTT  
TCTGAAGCTACAGCCTCCAATTTGGTGAAAGTCAATATAATAGGAGAAGTGGTTGACCAGGGAAGTACCAATTTG  
AAAAATTGACCATACAGGATTCACTCCCCATGCTGCAATCTATTCAACACGTCCTGATGTTAAGTGTGTGATACAC  
ATCCATACCCTTGCAACAGCAGCTGTATCCTCCATGAAATGTGGGATCCTTCCAATTTCTCAAGAGTCTCTTCTT  
CTGGGAGATGTTGCCTATTATGACTACCAAGGGTCACTTGAAGAACAGGAGGAGAGAATTCAACTGCAGAAGGT  
CTGGGACCAAGTTGTAAGGTGCTGGTACTCAGGAATCATGGTGTGGTTGCACTTGGAGAAACATTAGAGGAGGCT  
TTTCATTATATTTTTAATGTGCAACTAGCCTGTGAGATTCAAGTGCAGGCCCTAGCAGGTGCAGGTGGAGTAGAC  
AATCTCCATGTACTGGACTTTTCAGAAGTATAAAGCTTTCACTTACACTGTAGCAGCGTCTGGTGGAGGAGGTGTG  
AATATGGGTTCCCATCCAAATGGAAGGTTGGCGAAATTGAGTTTGAAGGGCTTATGAGGACTCTGGACAACCTTG  
GGGTATAGAACAGGCTATGCTTACAGGCATCCTCTCATTCGAGAGAAGCCTAGGCACAAGAGTGATGTGGAAATC  
CCAGCAACTGTGACTGCTTTTTCTTTGAAGACGATACAATGCCACTCTCTCCTCTCCAAATACATGGCACAAGA  
GGCAACAAGCGTGAAAAACAAGATGGCTGAACTCACCAATACTTACATGAAAGTGAATGTGCCTGAGGAGTCT  
CGGAACGGAGAAACCAGTCCCCGAACCAAAATCACGTGGATGAAAGCAGAAGACTCATCTAAAGTTAGTGGTGA  
ACACCTATCCAAATTGAAGATCCAAATCAGTTTGTTCCTTTAAACACAAACCCGAATGAGGTACTAGAAAAGAGA  
AATAAGATTCCGGGAACAAAATCGATATGACTTGAAAACAGCAGGACCACAATCTCAGTTGCTTGCTGGAATTGTT  
GTGGATAAGCCACCTTCTACTATGCAATTTGAAGATGATGATCATGGCCCACCAGCTCCTCCTAACCCATTTAGT  
CATCTCACAGAAGGAGAAGTTGAAGAGTATAAGAGGACAATCGAACGTAAACAACAAGGCCTAGAAGAAAACCAT  
GAGCTGTTTTCCAAGAGCTTCATCTCCATGGAAGTGCCTGTCATGGTAGTAAATGGCAAGGATGATATGCATGAT  
GTTGAAGATGAGCTTGCTAAGCGAGTGAGTAGGTTAAGCACAGTACAACCATAGAAAACATCGAGATTACTATT  
AAGTCTCCAGAGAAAATCGAAGAAGTCCTGTACCTGAAGGCTCCCCCTTCAAATCGCCATCCAAGAAAAAGAAG  
AAATTCCGCACTCCTTCTTTTCTGAAAAAGAACAAAAAAAGGAGAAAGTTGAGGCC**TAA**ATAAAGTCTTTTTAT  
AATTATTATTATAACAATGTGACATTGCACATCTAAATACCACATTTAAGTTGATCATTAATATGCAATGGTAGA  
TCAGATTGGGGGATGTAGCAAACCTGGACTTTAAGAACTGGAAAGAGGTTTTACAAAAGAAAACTTCAAGATTCA  
TCTCTCATTTTATATGTCCAGAAATGGCTTTGGAATTTTAAGCAATTACTAGTTTTAATTAGCTCTGCCCTCATG  
AAGTTTATTATT

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**FIGURE 479**

MSSDASQGVITTPPPPSMPHKERYFDRINENDPEYIRERNMSPDLRQDFNMMEQRKRVQILQSPAFREDLECLI  
QEQMKKGHNPTGLLALQQIADYIMANSFSGFSSPPLSLGMVTPINDLPGADTSSYVKGEKLTRCKLASLYRLVDL  
FGWAHLANTYISVRISKEQDHIIIPRGLSFSEATASNLVKVNIIGEVVDQGSTNLKIDHTGFSPHAAIYSTRPD  
VKCVIHIHTLATAAVSSMKCGILPISQESLLLGDVAYDYQGSLEEQEERIQLQKVLGPSCVKLVLRNHGVVALG  
ETLEEAFFHYIFNVQLACEIQVQALAGAGGVDNLHVLDFOKYKAFTYTVAASGGGGVNMGSHPKWKVGEIEFEGLM  
RTLDNLGYRTGYAYRHPLIREKPRHKSDVEIPATVTAFSFEDDTMPLSPLQIHGTRGNKREKTRWLNSPNTYMKV  
NVPEESRNGETSPRKITWMKAEDSSKVSOGTPIQIEDPNQFVPLNTNPNEVLEKRNKIREQNRDYLKTAGPQSQ  
LLAGIVVDKPPSTMQFEDDDHGPPAPPNPFSLHTEGELEEYKRTIERKQQGLEENHELFSKSFISMEVPVMVNG  
KDDMHDVEDELAKRVSRLSTSTTIENIEITIKSPEKIEEVLSPGSPSKSPSKKKKKFRTPSFLKKNKKKEKVEA

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**FIGURE 480**

CTTTCGGTCCCTTGCTTCGTCTTCGCTTTTCTTTCTACTTATTCTTATCTGTGTCCTTCGCTTTGTTTGCCTCT  
 CCGTCTGTTTTCCCTCAGGGCCCCCTTCTTTCTCGACCTTTTCAAATCGCAAATATGCGCGCCGGAGCGGCTGCG  
 GAGCCGGGCGCCCTCCGCCTTCAAGTTGCGGGGCTTGCTGCTCCGTGGTGAAGCTATTAAGTACCTCACAGAAGC  
 TCTTCAGTCTATCAGTGAATTAGAGCTTGAAGATAAACTGGAAAAGATAATTAATGCAGTTGAGAAGCAACCCTT  
 GTCATCAAACATGATTGAACGATCTGTGGTGAAGCAGCAGTCCAGGAATGCAGTCAGTCTGTTGATGAACTAT  
 AGAGCACGTTTTCAATATCATAGGAGCATTGATATTCCACGCTTTGTGTACAATTCAGAAAGAAAAAATTTCT  
 TCCTCTGTTAATGACCAACCACCCTGCACCAAAATTTATTTGGAACACCAAGAGATAAAGCAGAGATGTTTCGTGA  
 GCGATATAACATTTTGACCCAGAGGACCCACAGGCATGAATTATTTACTCCTCCGGTGATAGGTTCTCACCCTGA  
 TGAAAGCGGAAGCAAATTCAGCTTAAACAATAGAAACCTTATTGGGTAGTACAACCAAAATCGGAGATGCGAT  
 TGTTCCTTGAATGATAACGCAGTTAAAAGAGGGAAAAATTTTTCTGGAAGATCCTACTGGAACAGTCCACTAGA  
 CCTTAGTAAAGCTCAGTTCCATAGTGGTTTATACACAGAGGCATGCTTTGTCTTAGCAGAAGGTTGGTTTGAAGA  
 TCAAGTGTTTCATGTCAATGCCTTTGGATTTCCACCCACTGAGCCCTCTAGTACTACTAGGGCATACTATGGAAC  
 TATTAATTTTTTTGGAGGTCCTTCTAATACATCTGTGAAGACTTCTGCAAACTAAAACAGCTAGAAGAGGAGAA  
 TAAAGATGCTATGTTTGTGTTTTATCTGATGTTTGGTTGGACCAGGTGGAAGTATTGGAAAACTTCGCATAAT  
 GTTTGTCTGTTATTACCCAGCACCTCCAACCTGCTTTATTCTGTGTGGTAATTTTTCATCTGCACCATATGGAAC  
 AAATCAAGTTCAAGCTTTGAAAGATTCCCTAAAAACTTTGGCAGATATAATATGTGAATACCCAGATATTCACCA  
 AAGTCGTTTTGTGTTTGTACCTGGTCCAGAGGATCCTGGATTTGGTTCCATCTTACCAAGGCCACCACTTGCTGA  
 AAGCATCACTAATGAATTCAGACAAAGGTACCATTTTTCAGTTTTTACTACTAATCCTTGAGAATTCAGTACTG  
 TACACAGGAAATTACTGTCTTCCGTGAAGACTTAGTAAATAAAATGTGCAGAACTGCGTCCGTTTTCTTAGCAG  
 CAATTTGGCTATTCCTAATCACTTTGTAAAGACTATCTTATCCCAAGGACATCTGACTCCCCTACCTCTTTATGT  
 CTGCCCAGTGTATTGGGCATATGACTATGCTTTGAGAGTGTATCCTGTGCCCAGTCTACTTGTCAATTCAGACAA  
 ATATGATCCTTTCACTACGACAAATACCGAATGCCTCTGCATAAACCTGGCTCTTTTCCAAGAAGTGGATTTTC  
 ATTCAAAGTTTTTTATCCTTCTAATAAGACAGTAGAAGATAGCAAACCTCAAGGCTTTTGAAGATTCTTAAAGATC  
 ATCTGAAGAAAATTCATCAGTTTTCTGCTTAACTCTATATCTTATGTGATTCTGATATTACAATAAAATTATGGT  
 AAACCTT

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**FIGURE 481**

MAPERLRSRAPSAFKLRGLLLGEAIKYLTEALQSISELELEDKLEKIINAVEKQPLSSNMIERSVVEAAVQEC  
QSVDETIEHVFNIIGAFDIPRFVYNSEKFLPLLMTNHPAPNLFGTPRDKAEMFRERYTILHQRTHRHELFTPP  
VIGSHPDESGSKFQLKTITLLGSTTKIGDAIVLGMITQLKEGKFFLEDPTGTVQLDLSKAQFHSGLYTEACFVL  
AEGWFEDQVFHVNAFGFPPTPESSSTRAYYGNINFFGGPSNTSVKTSAKLKQLEENKDAMFVFLSDVWLDQVEV  
LEKLRI MFAGYSPAPPTCFILCGNFSSAPYGKNQVQALKDSLKTLADIICEYPD IHQSRFVFVPGPEDPGFGSIL  
PRPPLAESITNEFRQRPFSVFTTNPCRIQYCTQEITVFREDLVNKMCRNCVRFPSSNLAIPNHFVKITLSQGH  
TPLPLYVCPVYWAYDYALRVYPVDPDLLVIADKYDPFTTTNTECLCINPGSFPRSGFSFKVFYPSNKTVEDSKLQG  
F



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**FIGURE 482**

GGCGCGGGGACGCGGGTTTCTGCCTCAGGCCCTGCCCTGCTCTACTCTGCGCTCTCTGCCCCGCGCCGCCGCCGCC  
TCAGCCTCGGCCCTGCGCTGCGCGCCCCGGCCCGTGCTGCC**ATGG**CCTGCCGCCCGCGAAGCCCGCCGAGGCATCA  
GAGCCGCTGCGACGGTGACGCCAGCCCGCCGTCCCCCGCGCGATGGAGCCTGGGACGGAAGCGCAGAGCCGACGG  
CAGGCGCTGGAGGCCCGAAGACGCCGAGGAGGCAGAGCACCGCGCGCCGAGCGCAGACCCGAGAGCTTTACCAC  
TCCTGAAGGCCCTAAACCCCGTTCCAGATGCTCTGACTGGGCAAGTGCAGTTGAAGAAGATGAAATGAGGACCAG  
AGGAAGTTCTGATTCAAAGGAGTCTATGTCTACTGTGCCGGCTGACTTTGAGACAGATGAAAGTGTCTAATGAG  
GAGACAGAAGCAGATCAACTATGGGAAGAACAATTGCCTACGATCGTTATATTAAAGAAGTCCCAAGACACCT  
TCGACAACCTGGCATTTCATCCCAAGACCCCTAATAAATTTAAGAAGTATAGTCGACGTTTCATGGGACCAGCAAAT  
CAAACCTCTGGAAGGTGGCTCTGCATTTTTTGGGATCCTCCAGCGGAAGAAGGATGTGATTTGCAAGAAATACACCC  
TGTAACCTTGAATCTGCAGAAAGCAGCTCCGAGCCCCAGACCAGCTCTCAGGATGACTTTGATGTGTACTCTGG  
CACACCCACCAAGGTGAGACACATGGACAGTCAAGTGGAGGATGAGTTTGATTTGGAAGCTTGTTTAACTGAACC  
CTTGAGAGACTTCTCAGCCATGAGCT**TAA**CTGCCCCCTGGCGGCCAGGAAGAGAAACAGCTCCTCCCGACTAGGT  
GGAAGGCTGGCCAGGCACCAAGCATGTGTGTGCACTTGTACCTGGTGGTTTCTCTGTTAGCAGTCCATTAGCTCA  
TGCTGAATTATTTTTGCCTTACTTTCTTAAGAAACATTAATTTTATGTATAGTGAGTATATTTTGCATGTTTTAA  
ATTGTAAATGGAGCTAAGTCCAAGAAAGTACTTGAAGCTCTCTTCCAGCGAGCTTAATTGCGTAATCCCTGTTGT  
CCTCCAGGGTAAGCTGACACGTCTACATAACTGGTTTTCCACAGGCATCTTCAGTTATTGCTTGTGAGGTGGACT  
GTTTTGGATTAAACCATGTAATCCATGGGACCAATTGAGAGTCAGCTACTTTTATAGGCATCAAAGTATTCTCAG  
ACACCTTTAATATCTTTATGGAACTTAATTTTTTGGCCTTTTATCAATATGTCATAACAGCATTCTGAAGTCAGA  
CATTGTAAATTGAGCTATTAACTAATGAGTTTTATGTAAGTTATATGGTCTTAATTTGGTACTTGTAATAGC  
ACTAGTTAGACTCTTTAGAATACTCCAAGAGTTAGGGCAGCAGAGTGGAGCGATTTAGAAAGAACATTTTAAAC  
AATCAGTTAATTTACCATGTAAAATFGCTGTAAATGATAATGTGTACAGATTTTCTGTTCAAATATTCAATTGTA  
AACTTCTTGTTAAGACTGTTACGTTTCTATTGCTTTTGTATGGGATATTGCAAAAATAAAAAGGAAAGAACCCTC  
AAAAAAAAAAAAAAAAAAAA

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**FIGURE 483**

MACRPRSPPRHQSRCDGDASPPSPARWSLGRKRRADGRRWRPEDAEAEHGAERRPESFTTPEGPKPRSRCSDW  
ASAVEEDEMRTVRNKMARYKRKLLINDFGRERKSSSGSSDSKESMSTVPADFETDESVLMMRQKQINYGKNTIA  
YDRYIKEVPRHLRQPGIHPKTPNFKKYSRRSWDQQIKLWKVALHFWDPPEEGCDLQEIHPVDLESAESSSEPQ  
TSSQDDFDVYSGTPTKVRHMDSQVEDEFDLEACLTEPLRDFSAMS

**FIGURE 484**

ATTTAAATTCTGCAGCTCAGAGATTCACACAGAAGTCTGGACACAATTCAGAAGAGCCACCCAGAAGGAGACAAC  
AATGTCCCTGCTACCCGTGCCATACACAGAGGCTGCCTCTTTGTCTACTGGTTCTACTGTGACAATCAAAGGGCG  
ACCACTTGCCTGTTTCTTGAATGAACCATACTGCAGGTGGATTTCCACACTGAGATGAAGGAGGAATCAGACAT  
TGCTTTCCATTTCCAAGTGTGCTTTGGTCGTGTCGTGGTTCATGAACAGCCGTGAGTATGGGGCCTGGAAGCAGCA  
GGTGGAATCCAAGAATATGCCCTTTCAGGATGGCCAAGAATTTGAACTGAGCATCTCAGTGCTGCCAGATAAGTA  
CCAGGTAATGGTCAATGGCCAATCCTCTTACACCTTTGACCATAGAATCAAGCCTGAGGCTGTGAAGATGGTGCA  
AGTGTGGAGAGATATCTCCCTGACCAAATTTAATGTCAGCTATTTAAAGAGATTAACCAGACTTCATGTTGCCAAG  
GAATCCCTGTCTCTACGTGAACTTGGGATTCCAAGCCAGCTAACAGCATGATCTTTTCTCACTTCAATCCTTAC  
TCCTGCTCATTAAAACTTAATCAAACCTTCAAAAAAAAAA

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**FIGURE 485**

MSLLPVPYTEAASLSTGSTVTIKGRPLACFLNEPYLQVDFHTEMKEESDIVFHFQVCFGRRVVMNSREYGAWKQQ  
VESKNMPFQDGQEFELSISVLPDKYQVMVNGQSSYTFDHRIKPEAVKMVQVWRDISLTKFNVSYLKR

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**FIGURE 486**

CTCGGCGCGCGCTTGGGGCGAGGCTCGGCGGGCGCGGACGCGCAGC**ATG**GCGGTGGAGGACGAGGGGCTCCGGGT  
CTTCCAGAGCGTGAAGATCAAGATCGGTGAAGCCAAAAACCTTCCCTCTTACCCGGGGCCGAGCAAGATGAGGGA  
TTGCTACTGCACGGTGAACCTGGACCAGGAGGAGGTTTTTCAGGACCAAATTTGTGGAAGAGTCACTCTGCCCGTT  
TTACGGAGAAGACTTTTTACTGTGAAATTCCTCGGAGCTTTTCGTACCTGTCCTTCTACATTTTCGATAGAGACGT  
TTTCCGGAGGGATTCCATCATAGGGAAGGTGGCCATCCAGAAGGAGGACTTGAGAAAGTACCACAACAGGGACAC  
CTGGTTCCAGCTGCAGCACGTGGACGCTGACTCGGAAGTGCAGGGCAAAGTGCACCTGGAGCTGCGGCTGAGCGA  
GGTCATCACAGACACTGGGGTCGTCTGCCACAAGCTCGCCACACGCATCGTCGAGTGCCAGGGCCTCCCCATCGT  
GAATGGGCAATGTGACCCCTACGCCACCGTGACGCTGGCAGGACCCTTCAGATCAGAAGCAAAGAAGACGAAAGT  
GAAGAGGAAGACCAACAATCCCCAGTTTCGATGAAGTGTTTTATTTTGAGGTGACCCGGCCCTGTAGCTACAGCAA  
GAAGTCCCACTTTGACTTTGAGGAGGAAGACGTGGACAAGCTCGAAATCAGAGTTGACCTCTGGAATGCCAGTAA  
CCTGAAGTTTGAGATGAATTCCTGGGAGAACTAAGGATCCCGTTGAAAGTCTGCGGCAGTCCAGCTCCTACGA  
GGCGTGGTACTTCTCCAGCCCCGGGACAATGGTAGCAAGAGCCTAAAGCCAGACGACCTGGGCTCCTGCGGCT  
GAACGTGGTATACACGGAAGACCACGTGTTTTCTTCTGACTATTACAGCCCTCTGCGGGACCTGCTGTTGAAGTC  
TGCGGATGTGGAGCCCGTGTACGCGTCTGCGGCCACATCCTGGGCGAGGTTTGCCGGGAGAAGCAGGAGGCGGC  
CGTCCCCGCTGGTGCGGCTCTTCTACACTATGGCAGGGTGGTGCCATTTCATCAGTGCCATCGCCAGCGCGGAGGT  
GAAGCGGACCCAGGACCCCAACACCATCTTCCGAGGAAACTCACTGGCGTCCAAGTGCATTGACGAGACCATGAA  
GCTGGCGGGGATGCATTACCTGCATGTACCCCTGAAGCCCGCCATCGAGGAGATATGCCAGAGCCACAAACCCCTG  
TGAAATCGACCCTGTGAAGTTGAAGACGGAGAAAACCTTGAAAACAACATGGAGAACCTACGGCAGTATGTGGA  
CCGCGTCTTCCAGCCATCACCAGTCTGGGGTGAGCTGCCCGACCCTCATGTGTGACATCTTCTTCTCCCTCCG  
GGAGGCGGCGGCCAAGCGCTTCCAGGATGACCCGGACGTCAGGTACACTGCAGTGAGCAGCTTCATCTTCTGAG  
GTTCTTTGCGCCCGCCATTCTCTCCCCAACCTCTTCCAGCTCACGCCGACACACGGACCCCCAGACGTCCAG  
GACGCTGACATTGATCTCCAAGACCGTTTCAGACCCTCGGCAGCCTGTCCAAGTCCAAATCTGCGAGTTTTAAGGA  
GTCCTACATGGCTACATTTTATGAATTCTTCAATGAGCAGAAATATGCTGATGCGGTGAAGAACTTCTTGATCT  
GATTTTCGTCTTCGGGGAGAAGAGACCCCAAGAGTGTTGAGCAGCCCATCGTGCTTAAAGAAGGGTTTCATGATCAA  
GAGGGCCCAAGGACGGAAGCGCTTTGGGATGAAGAATTTTAAGAAGAGATGGTTTCGTTTGACCAACCATGAATT  
TACCTACCACAAAAGCAAAGGGGACCAGCCTCTCTACAGCATTCCCATCGAGAACATCCTGGCAGTGGAGAAGCT  
GGAGGAGGAGTCTTTCAAATGAAAAACATGTTCCAGGTCATCCAGCCAGAGCGTGCGCTGTACATCCAGGCCAA  
CAACTGCGTGGAGGCCAAGGACTGGATCGACATTCTACCAAAGTGAGCCAGTGCAACCAGAAGCGCCTCACCGT  
CTACCACCCGTCCGCCTACCTGAGCGGCCACTGGCTGTGCTGTAGGGCGCCATCCGACTCGGCTCCGGGCTGCTC  
GCCCTGCACTGGCGGCCTCCCAGCCAACATCCAGCTGGACATTGATGGGGACCGTGAGACGGAGCGTATCTACTC  
CCTCTTCAACTTGATACATGAGCAAGCTGGAGAAGATGCAGGAGGCCTGTGGGAGCAAATCTGTGTATGACGGCCC  
GGAGCAGGAGGAGTATTCGACGTTTCGTATTGACGACCCCCAGGAGACCTACAAGACGCTAAAGCAAGTCATCCG  
CTGGGTTGGGGCTTTGGAGCAGGAGCACGCCAGTATAAGAGGGACAAGTTCAAGAAGACGAAATATGGAAGCCA  
GGAGCACCCCATCGGAGACAAGAGCTTCCAGAACTACATCCGGCAGCAGTCCGAGACCTCCACTCATTCCATT**TA**  
**AAGTCTGCGGGACGCGCC**

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**FIGURE 487**

MAVEDEGLRVFQSVKIKIGEAKNLPSYPGPSKMRDCYCTVNLDQEEVFRTKIVEKSLCPFYGEDFYCEIPRSFRH  
LSFYIFDRDVFRRDSIIGKVAIQKEDLQKYHNRDTWFQLQHVDADSEVQGVHLELRLSEVITDTGVVCHKLATR  
IVECQGLPIVNGQCDPYATVTLAGPFRSEAKKTKVKRKTNNPQFDEVFYFEVTRPCSYSKKSHFD FEEEDVDKLE  
IRVDLWNASNLFKGDEFLGELRIPLKVLRRQSSSYEAWYFLQPRDNGSKSLKPDDLGSRLRLNVVYTEDHVFSSDY  
SPLRDLLLKSADVEPVSASAAHILGEVCREKQEAAPLVRLFLHYGRVVPFISAIASAEVKRTQDPNTIFRGNSL  
ASKCIDETMKLAGMHYLVTLKPAIEEICQSHKPCEIDPVKLDGENLENNMENLRQYVDRVFHAITESGVSCPT  
VMCDIFFSLREAAAKRFQDDPDVRYTAVSSFI FLRFFAPAILSPNLFQLTPHHTDPQTSRTLTLISKTVQTLGSL  
SKSKSASFKESYMATFYEFFNEQKYADAVKNFLDLISSGRRDPKSVEQPIVLKEGFMKRAQGRKRFGMKNFKK  
RWFRLTNHEFTYHKS KGDQPLYSIP IENILAVEKLEESFKMKNMFQVIQPERALYIQANNCVEAKDWIDILTKV  
SQCNOQRLTVYHP SAYLSGHWLCCRAPSDSAPGCSPTGGLPANIQLDIDGDRETERIYSLFNLYMSKLEKMQEA  
CGSKSVYDGPQE EYSTFVIDDPQETYKTLKQVIRWVGALQEHAQYKRDKFKKTKYGSQEHPIGDKSFQNYIRQ  
QSETSTHSI

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**FIGURE 488**

GCAGTGTCTCCCGGTGCGCGTGGAGGTCGGTCGCTCAGAGCTGCTGGGCGCAGTTTCTCCGCCTGCTGCTTCGG  
CGCGGCTGTATCGGCGAGCGAGCGAGTTCCCGCGAGTTCTCGGTGGCGCTCCCCCTTCCTTTAGTCTCCACGGA  
CTGGCCCCCTCGTCCTTCTACTTGACCGCTCCCGTCTTCCGCCGCCTTCTGGCGCTTTCCGTTGGGCCGATTCCCG  
CCCGCTTCTCCTGCTTCCCATCGAAGCTCTAGAAATGAATGTTTCCATCTCTTCAGAGATGAACCAGATTATGA  
TGCATCATTATCACAGAAGAAATTCGTGTCTATAGCTTTTAAGGACTTGATTACATCATTTTCAAGCCTGATAGT  
TTTGAATCACCATTAGAGCTTAAGACACACCTGCCTTCATTTCAACCACCTGTCTTCATACCCTGACGAAGTGC  
ACCTTTTAACACTCCTTTGTCCTTGGAATTACTTAAGAGTCCCAGAAATACATTTGCCACCAACAGAGTAGCCAA  
ATTTATAAGGAAAAATGATTCCCAATGGATATTTGATGTTTGAGGATGAAAATTTTATTGAGTCTTCTGTTGCCA  
AATTAAATGCCCTGAGGAAAAGTGGCCAGTTCTGTGATGTTGACTTCAGGTCTGTGGCCATGAAATGTTAGCAC  
ACAGAGCAGTGTAGCTTGCTGCAGTCCCTATTTATTTGAAATCTTTAATAGTGATAGTGATCCTCATGGAATTT  
CTCACGTTAAATTTGATGATCTCAATCCAGAAGCTGTTGAAGTCTTGTGAATTATGCCTACACTGCTCAGTTGA  
AAGCAGATAAGAATTGTAAAGATGTTTATTCTGCAGCAAAAAAGCTGAAGATGGATCGAGTAAAGCAGGTTTGTG  
GTGATTATTTACTGTCTAGAATGGATGTTACCAGCTGCATCTCTTACCGAAATTTTGCAAGTTGTATGGGAGACT  
CCCGTTTGTGAATAAGGTTGATGCTTATATTAGGAGCATTGTTACAAATTTCTGAAGAGGAGGAGTTTCTTA  
AGCTTCCAAGGCTAAAGTTGGAGGTAATGCTTGAAGATAATGTTTGCTTGCCAGCAATGGCAAATTATATACAA  
AGGTAATCAACTGGGTGCAGCGTAGCATCTGGGAGAATGGAGACAGTCTGGAAGAGCTGATGGAAGAGGTTCAAA  
CCTTGTACTIONTACTCAGCTGATCACAAGCTGCTTGATGGGAACCTACTAGATGGACAGGCTGAGGTGTTTGGCAGTG  
ATGATGACCACATTCAGTTTGTGCAGAAAAAGCCACCACGTGAGAATGGCCATAAGCAGATAAGTAGCAGTTCAA  
CTGGATGTCTCTCTTCTCCAAATGCTACAGTACAAAGCCCTAAGCATGAGTGGAATCGTTGCTTCAGAAAAGA  
CTTCAAATAACACTTACTTGTGCCTGGCTGTGCTGGATGGTATATTCTGTGTCATTTTTCTTCATGGGAGAAACA  
GCCCCACAGAGCTCACCAACAAGTACTCCAAAATAAGTAAGAGTTAAGCTTTGAGATGCAACAAGATGAGCTAA  
TCGAAAAGCCCATGTCTCCTATGCAGTACGCACGATCTGGTCTGGGAACAGCAGAGATGAATGGCAAACCTCATAG  
CTGCAGGTGGCTATAACAGAGAGGAATGTCTTGAACAGTGAATGCTATAATCCACATACAGATCACTGGTCCT  
TTCTTGCTCCCATGAGAACACCAAGAGCCGATTTCAAATGGCTGTACTCATGGGCCAGCTCTATGTGGTAGGTG  
GATCAAATGGCCACTCAGATGACCTGAGTTGTGGAGAGATGTATGATTCAAACATAGATGACTGGATTCTGTTC  
CAGAATTGAGAACTAACCGTTGTAATGCAGGAGTGTGTGCTCTGAATGGAAAGTTATACATCGTTGGTGGCTCTG  
ATCCATATGGTCAAAAAGGACTGAAAAATTGTGATGTATTTGATCCTGTAACAAAAGTTGTGGACAAGCTGTGCCC  
CTCTTAACATTTCGGAGACACCAGTCTGCAGTCTGTGAGCTTGGTGGTTATTTGTACATAATCGGAGGTGCAGAA  
CTTGGAATTGTCTGAACACAGTAGAACGATACAATCCTGAAAATAATACCTGGACTTTAATTGCACCCATGAATG  
TGGCTAGGCGAGGAGCTGGAGTGGCTGTTCTTAATGGAAAAGTGTGTTGATGTGGTGGCTTTGATGTTTCTCATG  
CCATCAGTTGTGTGGAATGTATGATCCAACCTAGAAATGAATGGAAGATGATGGGAAATATGACTTCACCAAGGA  
GCAATGCTGGGATTGCAACTGTAGGGAACACCATTTATGCAGTGGGAGGATTTCGATGGCAATGAATTTCTGAATA  
CGGTGGAAGTCTATAACCTTGAGTCAAAATGAATGGAGCCCTATACAAAGATTTTCCAGTTTAAACAAATTTAAG  
ACCTCTCAAACCTAACAGGCTTAGTGATGTAATTATGGTTAGTAGAGGTACACTTGTGAATAAAGAGGGTGGGTG  
GGTATAGATGTTGCTAACAGCAACACAAAGCTTTTGATATTGCATACTATTAAACATGCTGTACATACTTTTTG  
GGTTTATTTGAAAGGAATGCAAAGATGAAGGTCTGTTTTGTGTACTTTTAAGACTTTGGTTATTTTACTTTTTG  
GAAAAGAATAAACCAAGAATTGATTGGGCACATCATTTCAAGAAGTCCCTCTCCTCCACATTTGTTTTGCCAATT  
TGCACATTAATGACTCTTCCCTCGT

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**FIGURE 489**

MIPNGYLMFEDENFIESSVAKLNALRKSGQFCDVRLQVCGHEMLAHRAVLACCSPYLFEIFNSDSDPHGISHVKF  
DDLNPEAVEVLLNYAYTAQLKADKNCKDVYSAAKKLKMDRVKQVCGDYLLSRMDVTSCISYRNFASCMGDSRLLN  
KVDAYIQEHLQISEEEEEFLKLPRCLKLEVMLEDNVCLPSNGKLYTKVINWVQRSIWENGDSLEELMEEVQTLYY  
ADHKLLDGNLLDGQAEVFGSDDDHQFVQKKPPRENGHKQISSSTGCLSSPNATVQSPKHEWKIVASEKTSNNT  
YLCLAVLDGIFCVIFLHGRNSPQSSPTSTPKLSKSLSFEMQQDELIEKPMSPMQYARSGLGTAEMNGKLIAGGY  
NREECLRTVECYNPHTDHSFLAPMRTPRARFQMAVLMGQLYVVGGSNGHSDDLSCGEMYDSNIDDWIPVPELRT  
NRCNAGVCALNGKLYIVGGSDPYGQKGLKNCDVFDVTKLWTSCAPLNIRRHQSAVCELGGYLYIIGGAESWNCL  
NTVERYNPENNTWTLIAPMNVARRGAGVAVLNGKLFVCGGFDGSHAISCVEMYDPTRNEWKMMGNMTSPRSNAGI  
ATVGNTIYAVGGFDGNEFLNTVEVYNLESNEWSPTYTKIFQF



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**FIGURE 490A**

GGCATGGAACCTAAAGACTAGAGGCGGTTGTGTGAGTCAGGAAGAGGGGCCAGATATCTGAGTGTTCTCTTTAG  
TTTCTTCAATTGCAGATAATATGGTGTCTAATTTTATGTTGTTTCAGGAAAGACAGTGGTTCCTGACTCAGGAAGA  
CAGTCTCAGAAACATGTGGAATGATATTGAGCTGCTAACAAATGATGATACCGGAAGTGGGTACCTGAGTGTGG  
TTCAAGAAAAGAACATGGAAGTCTTTATATCAAGTAGATTGCTAGTGAAGATCTCTTCTGAAAAGGCCTCATT  
AAATCCAAAGATACAGGCATGCAGCTTAAGTGATGGGTTTATTATTGTAGCCGACCAATCAGTGATATTGCTTGA  
CAGTATTTGTAGATCACTTCAATTGCATCTTGTCTTTGATACTGAAGTGGATGTAGTTGGCCTTTGTCAAGAAGG  
AAAGTTTCTTTTGGTTGGCGAGAGAAGTGGCAACCTACATCTTATTCATGTAACATCAAAACAAACACTACTCAC  
TAATGCATTTGTTTCAGAAAGCTAACGATGAAAATCGGCGGACTTACCAGAATCTTGTTCATTGAGAAGGATGGTTC  
AAATGAAGGTACCTATTATATGCTACTTCTTACATACAGTGGATTTTTTTGTATTACAAACCTTCAGCTTTTAAA  
AATTCAACAAGCAATTGAGAATGTAGACTTCAGTACAGCAAAAAAGTTACAAGGACAAATCAAGTCCAGTTTTAT  
TTCTACTGAAAATTATCATACTCTTGGTTGTCTCAGTCTTGTGGCTGGAGATTTAGCAAGTGAAGTTCCTGTGAT  
AATTGGGGGAACCGGTAATTGTGCATTCTCAAAATGGGAACCAGATTCTTCCAAGAAAGGAATGACAGTTAAGAA  
CCTTATTGATGCAGAGATTATTAAAGGTGCAAGAAGTTCAGCTGATAGACAATCTACTTTTTGTCTTGTATAC  
TGATAACGTGCTGAGTTTATGGGATATTTACACTCTAACTCCTGTATGGAAGTGGCCCTCTCTTCACGTAGAAGA  
GTTTCTTCTTACTACAGAAGCAGACTCTCCTTCATCAGTCACGTGGCAAGGAATTACAAATCTCAAATTAATAGC  
TCTGACAGCTTCAGCTAATAAGAAGATGAAAAACCTCATGGTTTATTCATTACCTACAATGGAAATACTATATTC  
TTTGGAAGTATCTAGTGTCTTCTCTGGTCCAAACAGGAATTAGCACAGATACCATATACCTTTTAGAAGGAGT  
TTGCAAAAATGATCCAAAATTGTCTGAAGACTCAGTCTCTGTGTTAGTACTCAGATGTCTTACGGAAGCTTTACC  
AGAAAACAGATTGAGTCGGTTACTTCACAAACACAGATTTGCTGAAGCTGAGAGTTTTGCCATTTCAGTTTGGACT  
AGATGTTGAGCTTGTTTACAAGGTCAAGTCAAATCATATATTGGAGAACTGGCATTGAGTTCTGTGGATGCCAG  
TGAACAGACCGAATGGCAACAACCTGTAGACGACGCTAAGGAAAATCTACATAAGATCCAGGATGATGAATTTGT  
GGTGAATTACTGCCTGAAAGCTCAGTGGATAACCTATGAAACCACTCAAGAGATGCTGAATTATGCCAAAACAG  
GCTTTTGAAGAAAGAAGATAAAACTGCTCTCATTATTCTGATGGCTTGAAAGAGGTGCTAAGAGCTCATGCAAA  
ATTGACTACTTTTTATGGAGCATTGGACCAGAAAAATTTCAGTGGCAGTTCTTGGATTGAATTTCTAAATAATGA  
AGATGATCTTAAAGATATTTTTTTACAGCTAAAAGAAGGAAACCTTGTTTGTGCACAGTATCTTTGGCTTCGACA  
TCGGGGCAAACCTTGAAAGCAGATTTGATGTGAAAATGCTGGAGAGCTTGCTCAACTCAATGTCTGCATCAGTCTC  
TTTGCAAAAGCTGTGTCCATGGTTTTAAAAATGATGTGATTCCATTTGTAAGAAGGACTGTGCCTGAAGGACAGAT  
AATTCTTGCAAAATGGTTGGAACAAGCAGCCAGGAACCTTGAATTAAGTGAAGGCAAAATGGCCAGAAAAATGG  
ACTTCAATTGGCAGAGATATTTTTTTACAGCAGAAAAACAGACGAGTTGGGATTGGCATCTTCTGGCATTGGAT  
TTCTTGAAAGATTATCAGAACACAGAGGAAGTATGTCAGCTAAGGACTTTGGTAAATAACTTGCGAGAGTTGAT  
CACGTTGCATAGGAAGTACAACCTGCAAAATTAGCCCTCTCTGATTTTGAGAAGGAAAATACAACCACCATAGTGTT  
CCGAATGTTTGATAAAGTGCTGGCCCCAGAGCTTATTCCTCCATCTTAGAGAAGTTTATAAGAGTTTACATGAG  
AGAACATGACTTGCAAGAGGAGGAACCTTCTCTGTGTACATAGAGGATTTACTGAATAGATGCAGCTCAAAGTC  
CACATCACTCTTTGAAACAGCATGGGAAGCAAAGGCCATGGCAGTAATAGCGTGTCTTCTGACACGGACCTCAT  
ATTTGATGCCGTGCTCAAGATCATGTATGCGGCAGTGGTTCCTTGGAGTGCAGCTGTGGAGCAACTGGTGAAACA  
GCACCTGGAAATGGACCATCCCAAAGTCAAGTTATTACAGGAAAGTTACAACTAATGGAGATGAAAAAACTTTT  
ACGAGGCTATGGAATAAGAGAGGTAAATCTCTTAAACAAGGAAATAATGAGAGTGGTTAGATACATTCTCAAACA  
AGATGTCCCATCTTCTTTAGAAGATGCTTTAAAGGTAGCCCAAGCGTTTATGTTATCTGATGATGAGATCTACAG  
TCTAAGAATTATTGACCTGATTGATAGAGAACAGGGTGAAGACTGTCTCCTTCTGTTGAAGTCTTTGCCTCCTGC  
TGAAGCTGAGAAAAGTGCAGAAAGAGTCATCATATGGGCACGACTGGCATTACAAGAAGAGCCAGATCATTCTAA  
AGAGGGCAAGGCCTGGAGAATGTCTGTAGCGAAGACATCCGTGGACATTCTTAAGATACTATGTGACATTCAGAA  
AGACAATCTGCAGAAGAAGGACGAATGTGAAGAAATGTTGAAACTATTTAAAGAGGTTGCTAGCTTACAGGAGAA  
CTTTGAGGTCTTTCTTTTCAATTTGAAGATTATAGCAATAGTTCCCTGGTAGCAGATCTCCGTGAGCAGCACATTAA  
AGCTCACGAAGTTGCACAGGCGAAACACAAACCTGGGAGCACCCAGAGCCCATAGCTGCTGAGGTGAGGAGCCC  
AAGCATGGAATCAAAGCTGCACAGACAGGCACTGGCCCTGCAGATGTCCAAACAAGAGCTGGAGGCAGAGCTGAC  
CTTGAGAGCCTTAAAAGATGGGAACATCAAAACAGCACTGAAAAATGCAGCGACTTGTTTAAAGTATCACTGCAA  
TGCTGACACTGGGAAATTGCTATTTCTGACATGTCAGAAGCTTTGTCAGATGTTGGCTGATAATGTCCAGTGAC  
AGTGCCTGTGGGACTGAATCTTCTTCCATGATACATGATCTAGCAAGCCAAGCTGCCACCATTTGCAGTCCAGA

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**FIGURE 490B**

TTTTTTACTAGATGCTTTAGAACTATGTAAACATACTTTAATGGCTGTAGAGCTTTCCAGACAATGCCAAATGGA  
TGACTGTGGAATCCTCATGAAAGCTTCTTTTGGGACACATAAAGATCCATATGAAGAGTGGTCTTACAGTGACTT  
CTTCAGTGAAGATGGAATTGTTCTTGAGTCACAGATGGTGCTTCCAGTGATTTATGAACTGATTTTCATCTCTTGT  
GCCTCTAGCTGAAAGCAAGAGATATCCCTTGGAGTCTACCAGTTTGCCATACTGCTCCCTTAATGAAGGAGATGG  
CCTTGTTTTACCTGTTATAAAATTCATCTCTGCCCTGCTTCAGAATCTTCAGGAATCTAGCCAGTGGGAGCTAGC  
CCTAAGATTTGTGGTTGGTTCATTGTTGACCTGTCTTCAGCACTCTGTGTCAAACCTTCATGAATGCCACTTTGAG  
TGAAAAGTTATTTGGAGAGACTACATTAGTTAAATCAAGGCATGTTGTTATGGAATTGAAAAGAAAAGCTGTTAT  
ATTTATCAGGGAAAATGCTACAACACTACTGCACAAAGTATTTAATTGTCGCTTGGTAGATCTTGACCTGGCGTT  
GGGTTACTGCACTCTCTTACCTCAAAAAGATGTGTTTGAAAATCTCTGGAAGCTCATAGATAAAGCATGGCAGAA  
TTACGACAAAATCTTGCAATATCTCTGGTGGGCTCTGAGCTGGCAAGTCTCTATCAGGAAATAGAAATGGGGCT  
TAAGTTCGGTGAACCTCAGTACTGATGCCAGTGGGGCATTTCGTCTTGGTAACTTGGTATTTCTTTTCAACCAGT  
TTTCAGGCAACATTTTCTCACCAAGAAAGACCTCATTAAAGCTCTTGTGGAGAATATAGATATGGACACAAGCCT  
CATTTTGGAAATATTGCAGCACATTTTCAGTTGGACTGCGATGCAGTTCTTCAGCTCTTCATTGAAACGCTGCTCCA  
CAACACAAATGCCGGCCAAGGCCAGGGAGATGCAAGCATGGACTCTGCAAAGCGGCGGCATCCCAAACCTCCTGGC  
CAAAGCCCTTGAGATGGTTCCCTTTACTGACGAGCACAAAAGATTTGGTCATCAGTCTTAGTGGAATACTACATAA  
GTTGGATCCTTATGACTATGAAATGATTGAAGTTGTCTTGAAAGTTATAGAACGAGCTGATGAAAAGATAACCAA  
TATTAATATTAATCAGGCATTGAGTATTCTGAAACATTTGAAGTCATACAGAAGAATTTCTCCTCCCGTGGATCT  
AGAATATCAGTATATGTTGGAACATGTCATAACTTTGCCATCAGCTGCCCCAACTAGACTGCCTTTTACCTGAT  
ATTCTTTGGCACAGCACAGAACTTCTGGAAAATTCTCTCTACAGAACTCAGTGAAGAATCTTTCCCAACATTGCT  
CTTAATTTGCAAATTAATGAAGTTCTCTCTGGACACTCTGTACGTGTCTACAGCAAAACACGTTTTCGAAAAAA  
ACTGAAGCCAAAGCTCCTGAAGTTAACACAAGCTAAATCCTCAACACTGATTAACAAGGAAATAACTAAGATCAC  
GCAGACCATCGAATCCTGCTTACTCTCTATAGTCAACCCAGAGTGGGCTGTAGCTATTGCCATCAGCCTTGCCCCA  
GGATATCCCTGAAGGTTCCCTCAAGATATCTGCTTTGAAATTCTGCCTTTATTTAGCTGAGAGATGGCTACAGAA  
TATCCCATCGCAGGACGAAAAACGTGAAAAAGCCGAGGCTTTGTTGAAGAAGCTTCATATCCAGTACCGGCGATC  
GGGCACAGAAGCTGTGCTCATAGCCCACAAGCTGAACACTGAGGAATATTTAAGAGTGATCGGAAAGCCAGCACA  
TCTTATTGTCACTCTCTACGAACATCCTAGCATCAATCAAAGAATTCAGAATTCATCTGGCACAGATTATCCTGA  
TATTCATGCAGCAGCTAAAGAAATAGCCGAAGTCAATGAAATTAATTTGGAAAAAGTCTGGGACATGTTGTTGGA  
AAAATGGCTATGCCCTTCAACAAAACCTGGTGAAAAACCATCAGAATTATTTGAACTTCAAGAAGATGAAGCCCT  
ACGAAGAGTGCAGTATCTCCTCCTGTCTCGTCCAATTGATTATAGTTCAAGAATGCTGTTTGTATTGTGAACATC  
AACTACAACCACATTAGGTATGCATCAGTTAACTTTTGCCCATAGAACTCGAGCTCTTCAGTGTCTCTTCTATTT  
GGCTGACAAGGAAACTATAGAATCTCTCTTTAAAAAACCCATTGAAGAAGTGAAATCTTATTTGAGATGTATAAC  
TTTTCTGGCATCATTTGAGACTTTGAATATCCCCATCACATATGAATTATTTTGACAGCAGTCTTAAAGAAGGAAT  
GATTAAGGGTCTGTGGA AAAACACAGCCACGAGTCCATGGCAGTAAGATTGGTGACTGAGCTGTGTTTAGAATA  
CAAAATCTATGACCTGCAGCTTTGGAATGGACTCTTGCAAAAGCTTCTGGGCTTCAATATGATTCTTTATCTAAG  
GAAAGTTTTAAAAGCCATCTCCAGTATCCATTCTTTATGGCAGGTTCCCTACTTCAGCAAAGCGTGGCAGCGTGT  
GATACAGATAACCACTGCTTTCAGCCTCTTGTCCTTTAAGTCCTGATCAGCTGTCAGATTGTTCTGAGAGTCTCAT  
CGCTGTCTCTGAATGTCCAGTCTCAGGTGATCTTGACCTGATCGGAGTCGCCAGGCAGTATATCCAGTTAGAAT  
TCCGGCTTTTGCATTAGCTTGTCTGATGCTCATGCCCCACTCAGAGAAAAGACACCAGCAAATTAAGAATTTTCT  
GGGTTTCTGTGACCTCAGGTTATTTTAAAGCAATTGGAAGAGCATATGAACACGGGCCAGCTAGCAGGATTTTC  
ACATCAAATTAGAAGTCTGATTTTGAATAATATCATCAATAAGAAGGAGTTGGGATTTTGGCAAAGACCAAATA  
CTTTCAAATGTTGAAGATGCATGCGATGAATACCAACAATATCACTGAGCTAGTGAATTTTGGCAAATGACTT  
AAGTTTAGATGAAGCTTCAGTCTTGATAACTGAATATTCAAAGCACTGCGGGAAACCTGTGCCCTCCAGACACTGC  
TCCCTGTGAAATTCTGAAGATGTTTCTTAGTGGATTATCGTAAATCACTGAACCTTTTTTTTCAAGAAGGACAAGA  
ATTTTGGAGTCTGCTATTAATGGACCATATTTATTACAGTTTTTTAAATTGTACAATCTCTGTATTATAGCTATTT  
GTCTAACATTACCCCATGTAAATAAATAAACAATATGAGC

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**FIGURE 491**

MWNDIELLTNDDTGSGYLSVGSRKHEGTALYQVDLLVKISSEKASLNPKIQACSLSDGFIIVADQSVILLDSICR  
 SLQLHLVFDTEVDVVGLCQEGKFLLVGERSGNLHLIHVTSKQTLLTNAFVQKANDENRRTYQNLVIEKDGSGNEGT  
 YYMLLLTYSGFFCIITNLQLLKIQQAIENVDFSTAKKLQGGQIKSSFISTENYHTLGCLSLVAGDLASEVPVIGGT  
 GNCASFKEWEPDSSKKGMTVKNLIDAEIIKGAKKFQLIDNLLFVLDTDNVLSLWDIYTLTPVWNWPSLHVEEFLLT  
 TEADSPSSVTWQGITNLKLIALTASANKMKMNLVYSLPTMEILYSLEVSSVSSLVQTGISTDTIYLLLEGVCKND  
 PKLSEDSVSVLVLRLCTEALPENRLSRLLHKKHRAEAEASFQGLDVELVYKVSNHILEKLALSSVDASEQTE  
 WQQLVDDAKENLHKIQDDEFVNYCLKAQWITYETTQEMLNIAKTRLLKKEDKTALIYSDGLKEVLRHAHAKLTTF  
 YGAFGEKFSGSSWIEFLNNEDDLKIDFLQLKEGNLVCAQYLWLRHRANFESRFDVKMLESLLNSMSASVSLQKL  
 CPWFKNDVIPFVRRTVPEGQIILAKWLEQAARNLELTDKANWPENGLQLAEIFFTAEKTDGLASSWHWISLKD  
 YQNTTEVCQLRTLNNLRELITLHRKYNCKLALSDFEKENTTTIVFRMFDKVLAPELIPSILEKFIIRVYMRHDL  
 QEEELLLLYIEDLLNRCSSKSTSLFETAWEAKAMAVIACLSDDTLIFDAVLKIMYAAVVPWSAAVEQLVKQHLE  
 DHPKVLLQESYKLMEMKLLRGYGIREVNLLNKEIMRVVRYILKQDVPSSLEDALKVAQAFMLSDDEIYSLRII  
 DLIDREQGEDCLLLKSLPPAEAEKTAERVIIWARLALQEEPDSKEGKAWRMSVAKTSVDILKILCDIQKDNLQ  
 KKDECEEMKLKFKEVASLQENFEVFLSFEDYSNSSLVADLREQHIKAHEVAQAKHKPGSTPEPIAAEVRSPSMES  
 KLHRQALALQMSKQELEAELTLRALKDGNIKTALKKCSDFKYHCNADTGKLLFLTQCQKLCQMLADNPVTVPVG  
 LNLPSMIHDLASQAATICSPDFLLDALELCKHTLMAVELSRQCQMDDCGILMKASFGTHKDPYEEWSYSDFFSED  
 GIVLESQMVLVPVIYELISSLVPLAESKRYPLESTSLPYCSLNEGDGLVLPVINSISALLQNLQESSQWELALRFV  
 VGSFGTCLQHSVSNFMNATLSEKLFGETTLVKSRHVVMELKEKAVIFIRENATTLHKVFNCRLVDLDLALGYCT  
 LLPQKDVFNELWKLIDKAWQNYDKILASLVGSELASLYQEIEMGLKFRELSTDAQWGIRLGKLGISFQPVFRQH  
 FLTCKDLIKALVENIDMDTSLILEYCSTFQLDCDAVLQLFIETLLHNTNAGQGQGDASMDSAKRRHPKLLAKALE  
 MVPLLTSTKDLVISLSGILHKLDPYDYEMIEVVLKVIERADEKITNININQALSILKHLKSYRRISPVPDLEYQY  
 MLEHVITLPSAAQTRLPFHLIFFGTAQNFWKILSTELSEESFPTLLLSKLMKFSLDTLVSTAKHVFEKKLKP  
 LLKLTQAKSSTLINKEITKITQTIESCILLSIVNPEWAVAIASLAQDIPEGFSFKISALKFCLYLAERWLQNI  
 PSQDEKREKAEALLKHLHIQYRRSGTEAVLIAHKLNTEEYLRVIGKPAHLIVSLYEHP SINQRIQNSSGTDY  
 PDIAHAAKEIAEVNEINLEKVWDMLEKWLCPSTKPGKPSSELFELQEDEALRRVQYLLLSRPIDYSSRMLFV  
 FATSTTTT LGMHQLTFAHRTRALQCLFYLADKETIESLFKKPIEEVKSYLRCITFLASFETLNIPITYELFCSSP  
 KEGMIKGL WKNHSHESMAVRLVTELCLEYKIYDLQLWNGLLQKLLGFNMIPYLRKV LK

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**FIGURE 492**

GAGAGACTGGATGGACCCACAAGGGTGACAGCCCAGGCGGACCGATCTTCCCATCCCACATCCTCCGGCGCGATG  
CCAAAAAGAGGCTGACGGCAACTGGGCCTTCTGCAGAGAAAGACCTCCGCTTCACTGCCCCGGCTGGTCCCAAGG  
GTCAGGAAGATGGATTTCATACCTGCTGATGTGGGGACTGCTCACGTTTCATCATGGTGCCTGGCTGCCAGGCAGAG  
CTCTGTGACGATGACCCGCCAGAGATCCCACACGCCACATTCAAAGCCATGGCCTACAAGGAAGGAACCATGTTG  
AACTGTGAATGCAAGAGAGGTTTCCGCAGAATAAAAAGCGGGTCACTCTATATGCTCTGTACAGGAACTCTAGC  
CACTCGTCCTGGGACAACCAATGTCAATGCACAAGCTCTGCCACTCGGAACACAACGAAACAAGTGACACCTCAA  
CCTGAAGAACAGAAAGAAAGGAAAACACAGAAATGCAAAGTCCAATGCAGCCAGTGGAACCAAGCGAGCCTTCCA  
GGTCACTGCAGGGAACCTCCACCATGGGAAAATGAAGCCACAGAGAGAATTTATCATTTTCGTGGTGGGGCAGATG  
GTTTATTATCAGTGCGTCCAGGGATACAGGGCTCTACACAGAGGTCCTGCTGAGAGCGTCTGCAAAATGACCCAC  
GGGAAGACAAGGTGGACCCAGCCCCAGCTCATATGCACAGGTGAAATGGAGACCAGTCAGTTTCCAGGTGAAGAG  
AAGCCTCAGGCAAGCCCCGAAGGCCGTCTGAGAGTGAGACTTCTGCCTCGTCACAACAACAGATTTTCAAATA  
CAGACAGAAATGGCTGCAACCATGGAGACGTCCATATTTACAACAGAGTACCAGGTAGCAGTGGCCGGCTGTGTT  
TTCTGCTGATCAGCGTCTCTCTCTGAGTGGGCTCACCTGGCAGCGGAGACAGAGGAAGAGTAGAAGAACAATC  
TAGAAAAACCAAAAGAACAAGAATTTCTTGGAAGAAGCCGGGAACAGACAACAGAAGTCATGAAGCCCCAAGTGAA  
ATCAAAGGTGCTAAATGGTCGCCCAGGAGACATCCGTTGTGCTTGCCTGCGTTTTGGAAGCTCTGAAGTCACATC  
ACAGGACACGGGGCAGTGGCAACCTTGTCTCTATGCCAGCTCAGTCCCATCAGAGAGCGAGCGCTACCCACTTCT  
AAATAGCAATTTTCGCCGTTGAAGAGGAAGGGCAAAACCACTAGAACTCTCCATCTTATTTTCATGTATATGTGTT  
CATTAAAGCATGAATGGTATGGAATCTCTCCACCCTATATGTAGTATAAAGAAAAGTAGGTTTACATTCATCTC  
ATTCCAACCTCCAGTTCAGGAGTCCCAAGGAAAGCCCCAGCACTAACGTAAATACACAACACACACACTCTACC  
CTATACAACTGGACATTGTCTGCGTGGTTCTTTCTCAGCCGCTTCTGACTGCTGATTCTCCCGTTCACGTTGCC  
TAATAAACATCCTTCAAGAACTCTGGGCTGCTACCCAGAAATCATTTTACCCTTGGCTCAATCCTCTAAGCTAAC  
CCCCTTCTACTGAGCCTTCAGTCTTGAATTTCTAAAAACAGAGGCCATGGCAGAATAATCTTTGGGTAACCTCA  
AAACGGGGCAGCCAAACCCATGAGGCAATGTCAGGAACAGAAGGATGAATGAGGTCCCAGGCAGAGAATCATACT  
TAGCAAAGTTTTACCTGTGCGTTACTAATTGGCCTCTTTAAGAGTTAGTTTCTTTGGGATTGCTATGAATGATAC  
CCTGAATTTGGCCTGCACTAATTTGATGTTTACAGGTGGACACACAAGGTGCAAATCAATGCGTACGTTTCTGA  
GAAGTGTCTAAAAACACCAAAAGGGATCCGTACATTCAATGTTTATGCAAGGAAGGAAAGAAAGAAGGAAGTGA  
AGAGGGAGAAGGGATGGAGGTCACTGGTAGAACGTAACCACGGAAAAGAGCGCATCAGGCCTGGCACGGTGGC  
TCAGGCCTATAACCCAGCTCCCTAGGAGACCAAGGCGGGAGCATCTCTTGAGGCCAGGAGTTTGAGACCAGCCT  
GGGCAGCATAGCAAGACACATCCCTACAAAAAATTAGAAATTTGGCTGGATGTGGTGGCATAACGCTGTAGTCCTA  
GCCACTCAGGAGGCTGAGGCAGGAGGATTGCTTGAGCCCAGGAGTTCGAGGCTGCAGTCAGTCATGATGGCACCA  
CTGCACTCCAGCCTGGGCAACAGAGCAAGATCCTGTCTTTAAGGAAAAAAGACAAGG

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**FIGURE 493**

MDSYLLMWGLLTFIMVPGCAELCDDDPPEIPHATFKAMAYKEGTM LNCECKRGFRRIKSGSLYMLCTGNSSHSS  
WDNQCQCTSSATRNTTKQVIPQPEEQKERKTTEMQSPMQPVDQASLPGHCREPPPWENEATERIYHFVVGQMVYY  
QCVQGYRALHRGPAESVCKMTHGKTRWTQPQLICTGEMETSQFPGEEKPQASPEGRPESETSCLVTTTDFQIQTE  
MAATMETSIFTTEYQVAVAGCVFLLISVLLLSGLTWQRRQRKSRTI

**FIGURE 494**

AGCTCAGCAGGACCTCAGCC**ATG**AGACTTCTCATCCTGGCCCTCCTTGGCATCTGCTCTCTCACTGCATACATTG  
TGGAAGGTGTAGGGAGTGAAGTCTCAGATAAGAGGACCTGTGTGAGCCTCACTACCCAGCGACTGCCGGTTAGCA  
GAATCAAGACCTACACCATCACGGAAGGCTCCTTGAGAGCAGTAATTTTTATTACCAAACGTGGCCTAAAAGTCT  
GTGCTGATCCACAAGCCACATGGGTGAGAGACGTGGTCAGGAGCATGGACAGGAAATCCAACACCAGAAATAACA  
TGATCCAGACCAAGCCAACAGGAACCCAGCAATCGACCAATACAGCTGTGACTCTGACTGGCT**AGT**AGTCTCTGG  
CACCTGTCCGTCTCCAGCCAGCCAGCTCATTTCACTTTACACGCTCATGGACTGAGTTTATACTCACCTTTTAT  
GAAAGCACTGCATGAATAAAATTATTCCTTTGTATTTTTACTTTTAAATGTCTTCTGTATTCACTTATATGTTCT  
AATTAATAAATTATTTATTATTAAGAATAGTTCCCTAGTCTATTCAATTATTTAGGGAAAGGTAGTGTATCATT  
GTTGTTTGATTTCTGACCTTGACCTCTCTTTGATGGTAACCATAATGGAAGAGATTCTGGCTAGTGTCTATCAG  
AGGTGAAAGCTATATCAATCTCTCTTAGAGTCCAGCTTGTAATGGTTCTTTACACATCAGTCACAAGTTACAGCT  
GTGACAATGGCAACAATTTGAGATGTATTTCACTTGTCTCTATAATAGAATTCTGTTTATAGAATAAGGGAGAA  
AATAATCCAGTCTTCACTGGGTTCCTATTCTGAGGGTCCACTACTCAAAAATTTGCTTCACTCAATTTTTTTCAC  
CTCTTTGTGTTTTATTTTGGTGTCCTATTAAAGGAATAAAATGACACAACCTTGTCCTTTTTTGTCCCATTAGCA  
AAAATTAGAATTTTGGTATAAAGAACTTTATTCAAGTAAAAATCAATACCCTTTGAATTGGACAATAATCTCAC  
TACCTTATTAGGATTTCTGTATTTGCCATTACGCTAGTTATCATGCATGTTATGCTTTACTGCGAATAAGCTTTT  
AATGCTCCAAATGCTGACCCATGCAATATTTCTCATGTGATCACAATTTGCAGTAAACTTTTAATTAAATGCTC  
ATCTGGTAACTCAACACCCAG

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**FIGURE 495**

MRLILALLGICSLTAYIVEGVGSEVSDKRTCVSLLTQRLPVSRIKTYTITEGSLRAVIFITKRGLKVCADPQAT  
WVRDVVRSMRKSNTNRNNMIQTKPTGTQQSTNTAVLTG

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**FIGURE 496A**

ATTGCTAAGCCATCCTTCAGACAGAGAGGGAGCGGCTGCAAGAGGTAATGAGAGATGCAAGAAAGAAGCTGAAA  
AAATTTACTACTTTGGAGATTGTGCTCAGTGTTCTTCTGCTTGTTGTTTATCATCAGTATTGTTCTAATTGTG  
CTTTTAGCCAAAGAGTCACTGAAATCAACAGCCCCAGATCCTGGGACAACTGGTACCCCGGATCCTGGGACAACT  
GGTACCCAGATCCTGGAACAACTGGTACCACACATGCTAGGACAACGGGTCCCCAGATCCTGGAACAACTGGT  
ACCACTCCTGTTTCTGCTGAATGTCCAGTGGTAAATGAATTGGAACGAATTAATTGCATCCCTGACCAGCCGCCA  
ACAAAGGCCACATGTGACCAACGTGGCTGTTGCTGGAATCCCCAGGGAGCTGTAAGTGTTCCCTGGTGCTACTAT  
TCCAAGAATCATAGCTACCATGTAGAGGGCAACCTTGTCACACAAATGCAGGATTACAGCCCGGTTGAAAAAT  
CTGCCTTCCTCACCAGTGTTTGAAGCAATGTTGACAATGTTCTTCTCACAGCAGAATATCAGACATCTAATCGT  
TTCCACTTTAAGTTGACTGACCAAAACCAATAACAGGTTTGAAGTGCCCCACGAACACGTGCAGTCCTTCAGTGGA  
AATGCTGCTGCTTCTTTGACCTACCAAGTTGAAATCTCCAGACAGCCATTTAGCATCAAAGTGACCAGAAGAAGC  
AACAATCGTGTTTGTGTTGACTCGAGCATTGGGCCCCCTACTGTTTGTGACCAAGTTCCTGCAGCTCTCCACTCGA  
CTGCCTAGCACTAACGTGTATGGCCTGGGAGAGCATGTGCACCAGCAGTATCGGCATGATATGAATTGGAAGACC  
TGGCCCATATTTAACAGAGACACAACCTCCCAATGGAAACGGAACATAATTTGTATGGTGCGCAGACATTCTTCTTG  
TGCCTTGAAGATGCTAGTGGATTGTCCTTTGGGGTGTTTCTGATGAACAGCAATGCCATGGAGGTTGTCCTTCAG  
CCTGCGCCAGCCATCACTTACCGCACCATTGGGGGCATTCTCGACTTCTATGTGTTCTTGGGAAACACTCCAGAG  
CAAGTTGTTCAAGAATATCTAGAGCTCATTGGGCGGCCAGCCCTTCCCTCCTACTGGGCGCTTGGATTTACCTC  
AGTCGTTACGAATATGGAACCTTAGACAACATGAGGGAAGTCGTGGAGAGAAAATCGCGCAGCACAGCTCCCTTAT  
GATGTTTCAGCATGCTGATATTGATTATATGGATGAGAGAAGGGACTTCACTTATGATTTCAGTGGATTTTAAAGGC  
TTCCCTGAATTTGTCAACGAGTTACACAATAATGGACAGAAGCTTGTGCATCATTGTGGATCCAGCCATCTCCAAC  
AACTCTTCCTCAAGTAAACCTTATGGCCCATATGACAGGGGTTCCGGATATGAAGATATGGGTGAATAGTTCAGAT  
GGAGTGACTCCACTCATTGGGGAGGTCTGGCCTGGACAACTGTGTTTCTGATTATACCAATCCCAACTGTGCT  
GTTTGGTGACAAAGGAATTTGAGCTTTTTTACAATCAAGTAGAGTTTGATGGAATCTGGATTGATATGAATGAA  
GTCTCCAACCTTTGTTGATGGTTCGGTCTCAGGATGTTCCACAAACAACCTAAATAATCCCCATTCACTCCCAGA  
ATCCTGGATGGGTACCTGTTCTGCAAGACTCTCTGTATGGATGCAGTGCAGCACTGGGGCAAGCAGTATGACATT  
CACAATCTGTATGGCTACTCCATGGCGGTCTGCCACAGCAGAAGCTGCCAAGACTGTGTTCCCTAATAAGAGAAGC  
TTCATTCTGACCCGTTCTACCTTTGCGGGCTCTGGCAAGTTTGAGCAGCATTGGTTAGGAGACAACACTGCCACC  
TGGGATGACCTGAGATGGTCCATCCCTGGCGTGCTTGAGTTCAACCTTTTGGCATCCCAATGGTGGGTCTTGAC  
ATATGTGGCTTTGCTTTGGACACCCCTGAGGAGCTCTGTAGGCGGTGGATGCAGTTGGGTGCATTTTATCCGTTT  
TCTAGAAATCACAATGGCCAAGGCTACAAGGACCAGGATCCTGCCTCCTTTGGAGCTGACTCCCTGCTGTTGAAT  
TCCTCCAGGCACTACCTTAACATCCGCTATACTCTATTGCCCTACCTATACACCCCTTTCTTCCGTGCTCACAGC  
CGAGGGGACACGGTGGCCAGGCCCTTTTGCATGAGTTCTACGAGGACAACAGCACTTGGGATGTGCACCAACAG  
TTCTTATGGGGGCCCCGGCTCCTCATCACTCCAGTTCTGGATGAAGGTGCAGAGAAAAGCGATGGCATATGTGCCT  
GATGCTGTCTGGTATGACTACGAGACTGGGAGCCAAGTGAGATGGAGGAAGCAAAAAGTCGAGATGGAACCTCCT  
GGAGACAAAATTGGACTTCACCTTCGAGGAGGCTACATCTTCCCCACACAGCAGCCAAATACAACCACTCTGGCC  
AGTCGAAAGAACCCTCTTGCTTATCATTGCCCTAGATGAGAACAAGAAAGCAAAAAGGAGAAGCTTTTCTGGGAT  
GATGGGGAAACGAAGGATACTGTGGCCAATAAAGTGTATCTTTTATGTGAGTTTCTGTCACTCAAACCGCTTG  
GAGGTGAATATTTACAATCAACCTACAAGGACCCCAATAATTTAGCATTTAATGAGATTAATAATTCTTGGGACG  
GAGGAACCTAGCAATGTTACAGTGAAACACAATGGTGTCCCAAGTCAGACTTCTCCTACAGTCACTTATGATTCT  
AACCTGAAGGTTGCCATTATCACAGATATTGATCTTCTCCTGGGAGAAGCATACACAGTGAATGGAGCATAAAG  
ATAAGGGATGAAGAAAAAATAGACTGTTACCTGATGAGAATGGTGCTTCTGCCGAAAACCTGCACTGCCCGTGGC  
TGTATCTGGGAGGCATCCAATTCTTCTGGAGTCCCTTTTGTCTATTTTGTCAACGACCTATACTCTGTCTAGTGAT  
GTTTCACTATAATTCCCATGGGGCCACAGCTGACATCTCCTTAAAGTCTTCCGTTTATGCCAATGCCTTCCCTTCC  
ACACCCGTGAACCCCTTCGCTGGATGTCACTTACCATAAGAATGAAATGCCGCAGTTCAAGATTTATGATCCC  
AACAAGAATCGGTATGAAGTTCCAGTCCCTCTGAACATACCCAGCATGCCATCCAGCACCCCTGAGGGTCAACTC  
TATGATGTGCTCATTAAGAAGAATCCATTTGGGATTGAAATTCGCCGGAAGAGTATAGGCACTATAATTGGGAC  
TCTCAGCTCCTTGGCTTTACCTTCAGTGACATGTTTATCCGCATCTCCACCCGCTTCCCTCCAAGTACCTCTAT  
GGCTTCGGGGAACTGAGCACAGGTCCCTATAGGAGAGACTTGGAGTGGCACACTTGGGGGATGTTCTCCCGAGAC  
CAGCCCCCAGGGTACAAGAAGAATTCCTATGGTGTCCACCCCTACTACATGGGGCTGGAGGAGGACGGCAGTGCC



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**FIGURE 496B**

CATGGAGTGCTCCTGCTGAACAGCAATGCCATGGATGTGACGTTCCAGCCCCCTGCCTGCCTTGACATACCGCACC  
ACAGGGGGAGTTCTGGACTTTTATGTGTTCTTGGGGCCGACTCCAGAGCTTGTCACCCAGCAGTACACTGAGTTG  
ATTGGCCGGCCTGTGATGGTACCTTACTGGTCTTTGGGGTTCCAGCTGTGTGCTATGGCTACCAGAATGACTCT  
GAGATCGCCAGCTTGTATGATGAGATGGTGGCTGCCAGATCCCTTATGATGTGCAGTACTCAGACATCGACTAC  
ATGGAGCGGCAGCTGGACTTCACCTCAGCCCCAAGTTTGTGTTTCCAGCTCTGATCAATCGCATGAAGGCT  
GATGGGATGCGGGTCATCCTCATTCTGGATCCAGCCATTTCTGGCAATGAGACACAGCCTTATCCTGCCTTCACT  
CGGGGCGTGGAGGATGACGTCTTCATCAAATACCCAAATGATGGAGACATTGTCTGGGGAAAGGTCTGGCCTGAT  
TTTCTGATGTTGTTGTGAATGGGTCTCTAGACTGGGACAGCCAAGTGGAGCTATATCGAGCTTATGTGGCCTTC  
CCAGACTTTTTCCGTAATTCAACTGCCAAGTGGTGAAGAGGGAAATAGAAGAACTATAACAATCCACAGAAT  
CCAGAGAGGAGCTTGAAGTTTGTGATGGCATGTGGATTGATATGAATGAACCATCAAGCTTCGTGAATGGGGCAGTT  
TCTCCAGGCTGCAGGGACGCCTCTCTGAACCACCCTCCCTACATGCCACATTTGGAGTCCAGGGACAGGGGCCTG  
AGCAGCAAGACCCCTTGTATGGAGAGTCAGCAGATCCTCCCAGACGGCTCCCTGGTGCAGCACTACAACGTGCAC  
AACCTGTATGGGTGGTCCAGACCAGACCCACATACGAAGCCGTGCAGGAGGTGACGGGACAGCGAGGGGTGCTC  
ATCACCCGCTCCACATTTCCCTCTTCTGGCCGCTGGGCAGGACATTGGCTGGGAGACAACACGGCCGCATGGGAT  
CAGCTGAAGAAGTCTATCATTGGCATGACGGAGTTCAGCCTCTTCGGCATATCCTATACGGGAGCAGATATCTGT  
GGGTTCTTTCAAGATGCTGAATATGAGATGTGTGTTTCCGTGGATGCAGCTGGGGGCCTTTTACCCCTTCTCAAGA  
AACCACAACACCATTGGGACCAGGAGACAAGACCCTGTGTCTGGGATGTTGCTTTTGTGAATATTTCCAGAACT  
GTCCTGCAGACCAGATGCACCCTGTTGCCATATCTGTATACCTTGATGCATAAGGCCACACGGAGGGCGTCACT  
GTTGTGCGGCCTCTGCTCCATGAATTTGTGTGACAGCAGGTGACATGGGACATAGACAGTCAGTTTCTGCTGGGC  
CCAGCCTTCTGGTCAGCCCTGTCCTGGAGCGTAATGCCAGAAATGTCACTGCATATTTCCCTAGAGCCCGCTGG  
TATGATTACTACACGGGTGTGGATATTAATGCAAGAGGAGAGTGAAGACCTTGCCAGCCCTCTTGACCACATT  
AATCTTCATGTCCGTGGGGGCTACATCCTGCCCTGGCAAGAGCCTGCACTGAACACCCACTTAAGCCGCCAGAAA  
TTCATGGGCTTCAAAATTGCCTTGGATGATGAAGGAACTGCTGGGGGCTGGCTCTTCTGGGATGATGGGCAAAGC  
ATTGATACCTATGGGAAAGGACTCTATTACTTGGCCAGCTTTTCTGCCAGCCAGAATACGATGCAAAGCCATATA  
ATTTTCAACAATTACATCACTGGTACAAATCCTTTGAACTGGGCTACATTGAAATCTGGGGAGTGGGCAGTGTC  
CCCGTTACCAGTGCCAGCATCTCTGTGAGTGGCATGGTCATAACACCCTCCTTCAACAATGACCCACGACACAG  
GTATTAAGCATCGATGTGACTGACAGAAACATCAGCCTACATAATTTTACTTCATTGACGTGGATAAGCACTCTG  
**TGA**ATTTTTTACAGCAAGATTCTAACTAACTATGAATGACTTTGAACTACTTATACTTCATACTCATAAAAATTA  
TTGTGTGTTGCTAATTTGTTTCATACCCACTATTGGTGAAATATTTCTGTAAATTTTGTATATGTTTTTGTGTG  
AACCTTAAAGGTTAAACCTTAGCCCTGTGGGATAGGCAGTTAGGGAGGTGTGGAAAATCTATGCATTACCTTAAT  
GTCTCTGTGTGGTTAGTATGGTAGTGACTGTTTCATCATATGACATTTTACTGAAGATGAAGTGGGTCCATGATGAA  
GTGTGTGTATGTCCACGTTTGTAAATCATAGAATGGACCCATTCTTTTGTAAATACACAAGAGAAAGCTTTCTG  
TGACAGTTCCAGGTCTTGAAGCTAATCAGCATCTCAAGAAAGTATCCAGAAAGAACATCTGCTAGTTGGTTATAG  
GCGGTGGGAGGAATAATATACCTAATTGGTTATAGGTGGGGGGAGCATGATAAGCAAAGAAAAGGCAAACACAAG  
GAAAGATCAGATGAAACAGAAGATGATAGTAAAAGTGATCCTAAGTAAGAACATAATGTAATTTGTCAGCAGCC  
TCATGGGGAGGAAAAAGGAGTCAACTCACTTGAAGAAGAGGGTCTTGAGAAATCCTTAGCATAAAGGGCTAC  
TGGTGAGATTGAGATCTGAGCAGGCAAAGCTCAAAGAGAGTTTGGAGGTTAAAAATAATTTATTTTGCAGTAG  
TGTGCTTTGAAATGTGTAATCTTATTTCTAATGTATACAACCACATTTACATAAAAAATATGCAATTTATATGC  
CAGATAAAAAATAAAACAAGTGAATTTGCAAGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 497**

MARKKLLKKFTTLEIVLSVLLLVLFIISIVLIVLLAKESLKSTAPDPGTTGTPDPGTTGTPDPGTTGTTTHARTTGP  
PDPGTTGTTTPVSAECPVVNELERINCIPDQPPTKATCDQRGCCWNPQGAVSVPWCCYYSKNHSYHVEGNLVNTNAG  
FTARLKNLPSSPVFGSNVDNVLLTAEQTSNRHFHKLTDQTNRRFEVPHEHVQSFSGNAAASLTQVEISRQPFSS  
IKVTRRSNNRVLFDSSIGPLLFADQFLQLSTRLPSTNVYGLGEHVHQYRHDMMNWKTPIFNRDTPNGNGTNLY  
GAQTFFLCLEDASGLSFGVFLMNSNAMEVVLQAPAPAITYRTIGGILDYFVFLGNTPEQVVQEYLELIGRPALPSY  
WALGFHLSRYEYGTLDNMREVVERNRAAQLPYDVQHADIDYMDERRDFTYDSVDFKGFPEFVNELHNNQKLVII  
VDPAISNNSSSSSKPYGPYDRGSDMKIWNSSDGVTPPLIGEVWPGQTVFPDYTNPNCAVWWTKEFELFHNQVEFDG  
IWIDMNEVSNFVDGSGVSGCSTNNLNNPFTPRILDGYLFCKTLCMDAVQHWGKQYDIHNLYGYSMATAEAAKT  
VFPNKRSLILTRSTFAGSGKFAAHWLGDNATWDDLRSIPGVLEFNLFGIPMVGPDICGFALDTPPELCRRWMQ  
LGAFYPFSSRNHNGQGYKDQDPASFGADSLLLNSSRHYLNIRYTLPLPYLYTLFFRAHSRGDTVARPLLHEFYEDNS  
TWDVHQQLFWGPGLLITPVLDEGAEKAMAYVPDAVWYDYETGSQVRWRKQKVEMELPGDKIGLHLRGGYIFPTQQ  
PNTTTLASRKNPLGLIIALDENKEAKGELFWDDGETKDTVANKVYLLCEFSVTQNRLEVNISQSTYKDPNNLAFN  
EIKILGTEEPSNVTVKHNGVPSQTSPTVTYDSNLKVAIITDIDLLLGEAYTVEWSIKIRDEEKIDCYPDENGASA  
ENCTARGCIWEASNSSGVPPFCYFVNDLYSVSDVQYNHSGATADISLKSSVYANAFPSTPVNPLRLDVTYHKNEMP  
QFKIYDPNKNRYEVPVPLNIPSMPSSTPEGQLYDVLIKKNPFGIEIRRKSIGTIIWDSQLLGFTFSDMFIRISTR  
LPSKYLYGFGETEHRSYRRDLEWHTWGMFSRDQPPGYKKNSYGVHPYPMGLEEDGSAHGVLLLNSNAMDVTFQPL  
PALTYRTTGGVLDYFVFLGPTPELVTQQYTELIGRPVMVPYWSLGFQLCRYGYQNDSEIASLYDEMVAQIPYDV  
QYSDIDYMERQLDFTLSPKFAGFPALINRMKADGMRVILIDPAISGNETQPYPAFTRGVEDDVFIKYPNDGDIV  
WGKVWPDFPDVVVNGSLDWDQSVELYRAYVAFPDFFRNSTAKWWKREIEELYNNPQNPERSLKFDGMWIDMNEPS  
SFVNGAVSPGCRDASLNHPYPMPHLESRDRLSSKTLCMESQQILPDGSLVQHYNVHNLYGWSQTRPTYEAVQEV  
TGQRGVVITRSTFPSSGRWAGHWLGDNATAAWDQLKKSIIIGMTEFSLFGISYTGADICGFFQDAEYEMCVRWMQLG  
AFYFPSSRNHNTIGTRRQDPVSWDVAFVNISRTVLQTRCTLLPYLYTLMHKAHTEGTVVRPLLHEFVSDQVTWDI  
DSQFLLGPAFLVSPVLERNARNVTAYFPRARWYDYTGVDINARGEWKTLPAPLDHINLHVRRGGYILPWQEPALN  
THLSRQKFMGFKIALDDEGTAGGWLFWDDGQSIDTYGKGLYLLASFSASQNTMQSHIIFNNYITGTNPLKLGYYE  
IWGVGSPVPTSASISVSGMVIIPSFNNDPPTQVLSIDVTDNRNISLHNFTSLTWISTL

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**FIGURE 498**

CGATCCTGCCGAGCCCCGCCGCCGGCTTGGATTCTGAAACCTTCCTTGTATCCCTCCTGAGACATCTTTGC  
TGCAAGATCGAGGCTGTCTCTGGTGAGAAGGTGGTGAGGCTTCCCGTCATATTCCAGCTCTGAACAGCAAC**ATG**

GGGTGCAAAGTCCTGCTCAACATTGGGCAGCAGATGCTGCGGCGGAAGGTGGTGGAAGTGTAGCCGGGAGGAGACG  
CGGCTGTCTCGCTGCCTGAACACTTTTGATCTGGTGGCCCTCGGGGTGGGCAGCACACTGGGTGCTGGTGTCTAC  
GTCCTGGCTGGAGCTGTGGCCCGTGAGAATGCAGGCCCTGCCATTGTCTATCTCCTTCCTGATCGCTGCGCTGGCC  
TCAGTGCTGGCTGGCCTGTGCTATGGCGAGTTTGGTGCTCGGGTCCCCAAGACGGGCTCAGCTTACCTCTACAGC  
TATGTACCGTTGGAGAGCTCTGGGCCTTCATCACCGGCTGGAACCTAATCCTCTCCTACATCATCGGTACTTCA  
AGCGTAGCGAGGGCCTGGAGCGCCACCTTCGACGAGCTGATAGGCAGACCCATCGGGGAGTTCTCACGGACACAC  
ATGACTCTGAACGCCCCCGGCGTGCTGGCTGAAAACCCCGACATATTGCGAGTGATCATAATTCTCATCTTGACA  
GGACTTTTAACTCTTGGTGTAAGAGTTCGGCCATGGTCAACAAAATATTCACTTGTATTAAACGTCCTGGTCTGT  
GGCTTCATAATGGTGTCAGGATTTGTGAAAGGATCGGTTAAAACTGGCAGCTCACGGAGGAGGATTTTGGAAC  
ACATCAGGCCGCTCTCTGTTTGAACAATGACACAAAAGAAGGGAAGCCCGGTGTTGGTGGAATTCATGCCCTTCGGG  
TTCTCTGGTGCTCTGTCGGGGGCAGCGACTTGCTTCTATGCCTTCGTGGGCTTTGACTGCATCGCCACCACAGGT  
GAAGAGGTGAAGAACCACAGAAGGCCATCCCCGTGGGGATCGTGCGCTCCCTCTTGATCTGCTTCATCGCCTAC  
TTTGGGGTGTCGGCTGCCCTCACGCTCATGATGCCCTACTTCTGCCTGGACAATAACAGCCCCCTGCCCGACGCC  
TTTAAGCACGTGGGCTGGGAAGGTGCCAAGTACGCAGTGGCCGTGGGCTCCCTCTGCGCTCTTTCCGCCAGTCTT  
CTAGGTTCCATGTTTCCCATGCCTCGGGTTATCTATGCCATGGCTGAGGATGGACTGCTATTTAAATTCTTAGCC  
AACGTCAATGATAGGACCAAAACACCAATAATCGCCACATTAGCCTCGGGTGCCGTGTGCTGCTGTGATGGCCTTC  
CTCTTTGACCTGAAGGACTTGGTGACCTCATGTCCATTGGCACTCTCCTGGCTTACTCGTTGGTGCGCTGCCTGT  
GTGTTGGTCTTACGGTACCAGCCAGAGCAGCCTAACCTGGTATAACCAGATGGCCAGTACTTCCGACGAGTTAGAT  
CCAGCAGACCAAAATGAATTGGCAAGCACCAATGATTCCAGCTGGGGTTTTTACCAGAGGCAGAGATGTTCTCT  
TTGAAAACCATACTCTCACCCAAAAACATGGAGCCTTCCAAAATCTCTGGGCTAATTGTGAACATTTCAACCAGC  
CTTATAGCTGTTCTCATCATCACCTTCTGCATTGTGACCGTGCTTGGAAGGGAGGCTCTCACCAAGGGGCGCTG  
TGGGCAGTCTTTCTGCTCGCAGGGTCTGCCCTCCTCTGTGCCGTGGTCACGGGCGTCATCTGGAGGCAGCCCGAG  
AGCAAGACCAAGCTCTCATTTAAGGTTCCCTTCCTGCCAGTGCTCCCCATCCTGAGCATCTTCGTGAACGTCTAT  
CTCATGATGCAGCTGGACCAGGGCACCTGGGTCCGGTTTGTGTGTGGATGCTGATAGGCTTCATCATCTACTTT  
GGCTATGGCCTGTGGCACAGCGAGGAGGCGTCCCTGGATGCCGACCAAGCAAGGACTCCTGACGGCAACTTGAC  
CAGTGCAAG**TGAC**GCACAGCCCCGCCCCCGGAGGTGGCAGCAGCCCCGAGGGACGCCCCAGAGGACCGGGAGG  
CACCCACCCCTCCCCACCAGTGCAACAGAAACCACCTGCGTCCACACCCCTCACTGCA

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**FIGURE 499**

MGCKVLLNIGQQMLRRKVVDCSREETRLSRCLNTFDLVALGVGSTLGAGVYVLAGAVARENAGPAIVISFLIAAL  
ASVLAGLCYGEFGARVPKTGSAYLYSYVTVGELWAFITGWNILSYIIGTSSVARAWSATFDELIGRPIGEFSRT  
HMTLNAPGVLAENPDIFAVIIILILTGLLTGKESAMVNKIFTCINVLVLGFIMVSGFVKGSVKNWQLTEEDFG  
NTSGRLCLNNDTKEGKPGVGGFMPFGFSGVLGAATCFYAFVGFDCIATTGEEVKNPQKAIPVGIVASLLICFIA  
YFGVSAALTLMMPYFCLDNNSPDPDAFKHVGWEGAKYAVAVGSLCALSASLLGSMFPMPRVIYAMAEDGLLFKFL  
ANVNDRTKTPIIATLASGAVAAVMAFLFDLKDLDLMSIGTLLAYSLVAACVLVRLRYQPEQPNLVYQMASTSDEL  
DPADQNELASTNDSQLGFLPEAEMFSLKTIKSPKNMEPSKISGLIVNISTSLI AVLIIITFCIVTVLGREALTKGA  
LWAVFLLAGSALLCAVVTGVIWRQPESKTKLSFKVPFLPVLPILSIFVNVYLMMLDQGTWVRFAVWMLIGFIIY  
FGYGLWHSEEASLDADQARTPDGNLDQCK

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**FIGURE 500**

GTTCCTCAGGCTCTTGCGGTGAAGGTCAGAGTCAGACCTGAGACCACTGCTCACCGACTTCAGACTCCAGTTTA  
TCTGTGCCCCAGCTTCCTCACTTAGTCTCAGAAGACTTAGGCTGAGGCCCTCAGAAGGAGATCTCCATCCTTTGTCT  
CAGAGCAGAAACAGGATGCCATGTCCCAGGAATCATTGACCTTCAAGGACGTGTTTGTGGACTTCACCCTGGAGG  
AGTGGCAGCAACTGGACTCTGCCCAGAAGAACCTCTACAGGGATGTGCTTGAGAACTACAGCCACCTGGTGT  
CCGTGGGGTATCTAGTTGCGAAGCCTGATGTGATCTTCAGGTTGGGACCAGGTGGAGAGTCTGGATGGCAGATG  
GGGGGACCCCGGTACGGACCTGTGCGAAGTCTGGCAAGTTGATGAGCAGATAGATCACTACAAGGAAAGCCAAG  
ACAACTTCCTTGGAAGCTGCATTCATAGGCAAGGAAACACTGAAGGATGAAAGCGGTCAAGAATCCAGAACAT  
GTAGAAAAAGCATTATCTGAGCACAGAATTTGATTCTGTAAGGCAAAGACTCCCTAAATATTATTCGTGGGAAA  
AGGCATTCAAAACATCATTTAACTTTCTTGGTCAAAATGGAAGCTATGTAAGAAAGAAAGATGATGGATGTAAA  
GCATATTGGAAAGTATGCTTCCATTATAATCTTCATAAAGCTCAACCTGCAGAGAGATTTTTTGACCCTAATCAA  
CGAGGGAAAGCCCTCCACCAAAGCAAGCCCTTAGAAAAAGTCAGAGAAGTCAAAGTGGGGAGAACTCTACAAA  
TGTACTGAATGTGGAAAAGTGTATCCAGAAAGCAAACCTTAGTTGTACATCAAAGAACTCACACCGGAGAGAAA  
CCTTATGAATGCTGCGAATGTGCAAAAGCCTTCAGCCAGAAGTCAACCCCTCATAGCACACCAGAGAACTCACACA  
GGGGAGAAAGCCCTATGAATGCAGTGAATGTGGAAAAACCTTTATCCAGAAGTCAACTCTGATTAAACATAAGAAA  
ATTATATGAGAGAGACCCCTATAAATGCAGTGTCTGTGAGAAAGCCTTCAGTAGGAAGTCAACTCTCATTAAAC  
ATCAGATAATTATATGAGAGAAACCTTATGAATGTAATAAATGTGGGAAATCTTTTAGTGTTAAATCAACTCTC  
ATTGTATGTCACAGAACATAAATGCATAAGTTGCATGCTATTGTGAATAGTGTGATGAAATTTTGCAGTGTCTGT  
CTCTTTCTGCTCAGGATGCAAATCAGTGAATCTTTTTTTTTTTTTTTTTTTTGTAGACAGAGTCTTGCTCTGTCT  
CCAACTGGAGTGCAGTGGCACAATCTTGGCTCACTGCAACCTCCGCCTCTTGGGTTCAACCGATTCTCCTGCCT  
CAACCTCCCAAATAGTTGGGATTACAGGCACATGCCACCATAACGAGCTAATTTGTATTTTAGTAGAGACAGGG  
TTTACCATGTTGGCCAGCCTGGTCTTGAACCTCTGACCTCAAGTGATCCGCCTGCCTCAGCCTCCCAAAGTGCT  
GGGATTACAGGCATGAGCCACTGCACCCGGCTTGAATCATCCTTTTGTCCAGTATTATATCCATGCTGTATATGC  
TACCCGCCCACTAGTCCCTTAGCTGTCTCAGTTGTCAGATTGACTGTCATGGGATTGCAGTGTCTGCATTAAAGC  
TACCCTTATTGTATAATGACCCCAAAGTGCAAGAGTAGTGATGTTGGCAATTTGCATACACCAAAAATAAGTTAT  
AAAGTGCTTCCTTAAAGTGAATGGTTAAAGTTCTTGACTTAATAAAGAAAAAAATGTATGCTGAGGTTGTAA  
GATTTACAGTAAGAATGAATCTTCTATCCAGAAATTGTGAAGGAGGAAAAAGAACTTGTGCTAGTTTTGCTGTC  
ACATCTGAACTGCAAAAGTTGTGGCCACAGTGCATCATAAGTGCTAAGACGAAAAAGACATTAAATTTGCGGAT  
GGAAGGCGTGAATAGAAATGGGTTCTGACAGCAATCAGGTTCCGTACTATTACAGTTTCAGGCATCCGCTAGGG  
ATCTTGGAACATATCCCCATGGATAAGGGAGGGGTACTGTACCTTGTCTATATTGTGCATTAAAGAATTCATTGA  
GTGTAATCATGTAAGTCTAACACACATTTAAAAAGCTCTCAGATATCATTTCGCCTTCGGTTGATGTAAGAAAT  
TCAAAGCTACTCAAATCATTCAATAAATGATAAAATTATTTAAAAA

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# FIGURE 501

MAMSQESLTFKDVFDFTLEEWQQLDSAQKNLYRDVMLENYSHLVSVGYLVAKPDVIFRLGPGGESWMADGGTPV  
RTCAEVWQVDEQIDHYKESQDKLPWQAAFIGKETLKDESGQESRTCRKSIYLSTEFDSVRQRLPKYYSWEKAFKT  
SFKLSWSKWLCKKER

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**FIGURE 502**

AACACATTTTCATCTGGGCTTCTTAAATCTAAATCTTTAAAATGACTAAGTTTTCTTCCTTTTCTCTGTTTTTCCT  
AATAGTTGGGGCTTATATGACTCATGTGTGTTTCAATATGGAAATTATTGGAGGGAAAGAAGTGTCACCTCATT  
CAGGCCATTTATGGCTCCATCCAGTATGGCGGACATCACGTTTGTGGAGGTGTTCTGATTGATCCACAGTGGGT  
GCTGACAGCAGCCCACTGCCAATATCGGTTTACCAAAGGCCAGTCTCCCACTGTGGTTTTAGGCGCACACTCTCT  
CTCAAAGAATGAGGCCTCCAAACAAACACTGGAGATCAAAAAATTTATACCATTTCTCAAGAGTTACATCAGATCC  
TCAATCAAATGATATCATGCTGGTTAAGCTTCAAACAGCCGCAAACTCAATAAACATGTCAAGATGCTCCACAT  
AAGATCCAAAACCTCTCTTAGATCTGGAACCAAATGCAAGGTTACTGGCTGGGGAGCCACCGATCCAGATTCATT  
AAGACCTTCTGACACCCTGCGAGAAGTCACTGTTACTGTCCTAAGTCGAAAACTTTGCAACAGCCAAAGTTACTA  
CAACGGCGACCCTTTTATCACCAAAGACATGGTCTGTGCAGGAGATGCCAAAGGCCAGAAGGATTCCTGTAAGGG  
TGAATCAGGGGGCCCCCTTGATCTGTAAAGGTGTCTTCCACGCTATAGTCTCTGGAGGTCATGAATGTGGTGTTC  
CACAAAGCCTGGAATCTACACCCTGTAAACCAAGAAATACCAGACTTGGATCAAAAGCAACCTTGTCCCGCCTCA  
TACAAATTAAGTTACAAATAATTTTATTGGATGCACTTGCTTCTTTTTTCCTAATATGCTCGCAGGTTAGAGTTG  
GGTGTAAGTAAAGCAGAGCACATATGGGGTCCATTTTTCGCACTTGTAAGTCATTTTATTAAGGAATCAAGTTCTT  
TTTCACTTGTATCACTGATGTATTTCTACCATGCTGGTTTTATTCTAAATAAAATTTAGAAGACT

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**FIGURE 503**

MTKFSSFLFFLIVGAYMTHVCFNMEI IGGKEVSPHSRPFMASIQYGGHHVCGGVLIDPQWVLTAAHQCQYRFTKG  
QSPTVVLGAHSLSKNEASKQTLEIKKFIPFSRVTSDPQSNDIMLVKLQTAAKLNKHVKMLHIRSKTSLRSGTKCK  
VTGWGATDPDSLPSDTLREVTVTVLSRKLCNSQSYNGDPFITKDMVCAGDAKGQKDSCKGDSGGPLICKGVFH  
AIVSGGHECGVATKPGIYTLLTKKYQTWIKSNLVPPHTN



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**FIGURE 504**

GGACAGCACAGCTGACAGCCGTGCTCAGAAAGTTTCTGGATCCCAGGCTCATCTCCACAGAGGAGAACACGCAGG  
CAGCAGAGACC**ATG**GGGGCCCATCTCAGCCCCTTCTGCAGATGGCGCATCCCCTGGCAGGGGCTCCTGCTCACAG  
CCTCACTTTTACCTTCTGGAACCCGCCACCCTGCTCAGCTCACTATTGAAGCTGTGCCATCCAATGCTGCAG  
AGGGGAAGGAGGTTCTTCTACTTGTCCACAATCTGCCCCAGGACCCTCGTGGCTACAACGGTACAAAGGGGAAA  
CAGTGGATGCCAACCGTCGAATTATAGGATATGTAATATCAAATCAACAGATTACCCAGGGCCTGCATACAGCA  
ATCGAGAGACAATATACCCCAATGCATCCCTGCTGATGCGGAACGTCACCAGAAAATGACACAGGATCCTACACCC  
TACAAGTCATAAAGCTAAATCTTATGAGTGAAGAAGTAACTGGCCAGTTCAGCGTACATCCGGAGACTCCCAAGC  
CCTCCATCTCCAGCAACAACCTCCAACCCCGTGGAGGACAAGGATGCTGTGGCCTTCACCTGTGAACCTGAGACTC  
AGAACACAACCTACCTGTGGTGGGTAAATGGTCAGAGTCTCCCGGTCAGTCCCAGGCTGCAGCTGTCCAATGGCA  
ACAGGACCCTCACTCTACTCAGTGTCAAGGAATGACGTAGGACCCTATGAATGTGAAATACAGAACCCAGCGA  
GTGCAAACCTTCAGTGACCCAGTCACCCTGAATGTCTCTATGGCCAGATGCCCCACCATTTCCTTCAGACA  
CCTATTACCATGCAGGGGTAAATCTCAACCTCTCCTGCCATGCGGCCTCTAATCCACCCTCACAGTATTCTTGGT  
CTGTCAATGGCACATTCCAGCAATACACACAAAAGCTCTTTATCCCCAACATCACTACAAAGAACAGCGGATCCT  
ATGCCTGCCACACCACTAACTCAGCCACTGGCCGCAACAGGACCACAGTCAGGATGATCACAGTCTCTGATGCTG  
TAGTACAAGGAAGTTCTCCTGGCCTCTCAGCTAGAGCCACTGTGAGCATCATGATTGGAGTACTGGCCAGGGTGG  
CTCTGATAT**TAG**TAGCTCTGGTGTAGTTTCTGCATTTCAAGAAGACTGGCAGACAGTTGTTTTTATTCTTCCTCAA  
AGCATTTGCAATCAGCTACCATTCAAATTTGCTTCTTCTTCAAGATTTATGGAAAATACTCTGACGAGTACTCTT  
GAACACAAGTTTCTGATACTTTAAGATCACGCCACTGGACTGTCTATGAACCTTGCAAACAGGCTGATACCTTTG  
TGAAGTTGCCCAACAAAACACAGAAGGAAAAAACATGAATTTCAATTGAACATAATAATGAGGATAATGTTT  
TTAAGATTTTTTTTTTTTTTTTTTTTTTGGAGATGGAATCTCGCTCTGTGCGCCAGGCTGGAGTGCAGTGGCACGATC  
TCAACTCACTGCAACGTCCGCCTCCTGGGTTCACACCATTCTCCTGCCTCAGCCTCCTGAGTAGCTGGGACTACA  
GGCGCCTGCCACAACGCCCGGCTAATTTTTTGTATTTTTTAGTAGAGACGGGGTTTCACTGTGGTCTCAATCTCCT  
GACTTCATGGTCCGCCTGCCTCAGCCTCCCAAAGTTCTGGGATTACAGGTGTGAGCCACCGCGCCCAGCCCGTTT  
TTAAGATTTTTTATTTGAAAAATTGCCAATTTCTTTAAGTGTTTTCTTTTTCAGATTTATGAATTTCTTTATCTTT  
TAAGCTATCTATACCTTACTGCAATTTGGTAAAGCAGACTTTTGTGAACAAAAATTATAACATTTACTTTTGCTC  
CCTACCTGACTGCCACAGAACTGGGCAACTATTCATGAGTATTCATATGTTTATGGTAATTCAGTTATTTGCACA  
AGTTCAGTGAGAATCTGCTGTCTTTATAATGGGATATAGTTTAAAACATTGGTTATATTACCAAGGCTTTGATTG  
GGATGTTATATTTGAGAAAATACAGAGAATGATAGATTAACGGAGTGTCTAATCTATCGTGTCAACCCCAATTT  
TTACGTATGAGATCCTTTAGTCCACCCAATGGCTGACAGTAACAGCATCTTTAACACAACCTTTTGTTCAAATGT  
ACTATGGTCTCTTTTAGAGTCAGACTCCTAGACTCACTTGTTCTCACTGTCTGTTTTAATTTAACCCAGGCATGC  
AATGCTAGATAATAAAATTGCTCCCTATTGGCTGATC

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**FIGURE 505**

MGPISAPSCRWRIPWQGLLLTASLFTFWNPPTTAQLTIEAVPSNAAEGKEVLLL VHNLPQDPRGYNWYKGETVDA  
NRRIGYVISNQQITPGPAYSNRETIYPNASLLMRNVTRNDTGSYTLQVIKLNLMSEEV TGQFSVHPETPKPSIS  
SNNSNPVEDKDAVAFTCEPETQNTTYLWWVNGQSLPVSPRLQLSNGNRTL TLLSVTRNDVGPYECEIQNPASANF  
SDPVTLNVLYGPDAPTISP SDTYHAGVNLNLSCHAASNPPSQYSWSVNGTFQQYTQKLFIPNITTKNSGSYACH  
TTNSATGRNRRTTVRMITVSDAVVQGSSPGLSARATVSIMIGVLARVALI

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**FIGURE 506**

CGCAAGAATGCATACAAACTCCAGGGCTGCTCTCTCTCTGGAGAGGGAGGGAGGGGATTTAAAAACCTGCAGCAAC  
ATGGGGGAGGAGGCTGTTTGTCTTCTCTCTCTGGGGAAGTAACTCGCTCAAACCTGCCTTCCTTGCTGAGCTGCT  
TCGCGTAGCTTTGAGGAAGGTCTAGTGAAATTGGTCTTTCCATTACATCTGGATGTACTACCAGAGAGTTCTGCT  
GCTGTTGTTTTTTTTTAGCTTTTCTTTCTTTGAGTCTTTAAAGGGCAATTGTGACACTCTGCAAACATACCGATT  
TGTTGTCTGCCCACCTTTGGAGTCTTCAATCTGGGCAGTAACTATTTACCCTTTTTCTGCTAGCCTGTCCCCCTC  
TCTGGATTGAAGTCACCTGCTAAGACAATGGACTACCGACCAGACTCCCGGAAATCATGTTGGTAGGATCCCAGT  
CTTTTTCGCCTGGAGGGCCCAATGGGATCATTAGAAGCCAGTCCTTTGCGGGTTTCAGCGGCCTCCAGGAAAGGC  
GATCCAGGTGTAACCTCCTTCATTGAAAATTCCTCCGCTCTCAAGAAGCCTCAGGCCAAACTGAAGAAAATGCACA  
ATTTAGGCCACAAAAACAACATCCCCCAAAGAGCCTCAGCCTAAAAGGGTGGAAGAAGTCTACAGGGCCTTGA  
AAAATGGACTTGATGAATATCTGGAGGTTACCAGACGGAGCTGGACAAGTTGACAGCTCAGTTAAAAGATATGA  
AAAGAACTCTCGCCTGGGTGTACTGTATGACCTAGACAAGCAAATTAACAATGAAAGATACATGAGACGCC  
TGGAGTTTTATATAAGTAAGGTAGATGAACTCTATGAAGCTTATTGTATCCAGCGACGCCTCCAGGATGGTGCCA  
GCAAAATGAAGCAAGCCTTCGCAACATCCCCTGCCAGCAAAGCTGCCCGGGAGAGTCTGACAGAGATCAATCGGA  
GCTTCAAGGAGTACACAGAGAATATGTGCACCATTTGAAGTGGAGCTAGAGAATCTGCTGGGAGAATTCTCCATCA  
AGATGAAAGGTCTGGCTGGCTTTGCACGCCTCTGTCTGGAGATCAATATGAAATTTTCATGAAGTATGGCCGGC  
AGCGGTGGAACCTGAAAGGCAAAATAGAAGTAAATGGCAAGCAGAGCTGGGATGGAGAAGAAACAGTTTTTCTGC  
CCCTGATAGTTGGGTTTCATCTCCATCAAGGTCACGGAGCTCAAAGGGCTAGCAACTCACATCCTGGTAGGTAGCG  
TGACCTGTGAGACCAAAGAGCTGTTTGACGCCGACCTCAGGTAGTGGCTGTGACATCAATGACCTTGGTACCA  
TCAAACCTGAACCTGGAATCACCTGGTATCCATTTGACGTGGAGGACATGACCGCATCCTCAGGCGCTGGGAACA  
AGGCAGCAGCCCTTCAGAGGAGAATGTCCATGTACAGCCAGGGTACCCCGGAAACGCCACCTTCAAAGACCACT  
CCTTCTTTTCAAATCTACCTGATGACATCTTTGAAAATGGAAAGGCAGCCGAGGAGAAAATGCCACTGTGCTCA  
GCTTCAGTGACCTGCCCAACGGGGACTGCGCCCTCACCTCCCACTCAACAGGCTCCCCTTCCAACCTCAACAAATC  
CAGAAATTACCATCACCCCTGCGGAGTTTAACTCAGCAGCTTGGCCTCCAGAATGAGGGTATGGATGACACCA  
GCTCAGCATCTTCCAGGAACTCCCTGGGAGAAGGCCAAGAGCCAAAGTCACACCTGAAGGAGGAAGACCCAGAGG  
AGCCCGAGAAAACCTGCCTCGGCCCATCTGAGGCTTGCCGCCGACAGTCCTCAGGTGCTGGGGCTGAGCACCTGT  
TCCTTGAGAATGATGTTGCAGAAGCACTTCTGCAAGAGTCTGAGGAGGCCTCTGAGCTCAAGCCTGTGGAACCTGG  
ACACTTCGGAAGGAAACATCACAAAGCAGCTGGTCAAGAGGCTCACATCTGCAGAGGTGCCAATGGCCACAGACA  
GGCTGCTCTCTGAGGGTTCTGTTGGTGGAGAATCTGAAGGCTGCAGATCCTTTCTAGATGGAAGCTTAGAGGATG  
CTTTTAATGGGCTTTTACTTGATTAGAACACATAAAGAGCAGTATAAAGAGTTTCAGGATCTGAACCAAGAAG  
TCATGAATTTGGATGATATTCTAAAAAAGTAGAGAAGATCCTCTAATGGATCCCAGTGTGCCATCCCTCAACCT  
CCTCAGTGATCAACTCATGGCCAATCTTGTTTCTTCTTCAACCTGCTGACTTCCCTCTGGATTCTTCTGCAA  
CCAGTCCCAGATATTGTGCCATTTTATCCATTGGTTGTACTTCTTTTTTGGATATAAAGATTTTTAAATGCATTTT  
TTAAATGCTAACAAAAAATAAAAACCTTGAACAAAAA

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**FIGURE 507**

MLVGSQSFSPGGPNGIIRSQSFAGFSGLQERRSRCNSFIENSSALKKPQAKLKKMHNLGHKNNNPPKEPQPKRVE  
EVYRALKNGLDEYLEVHQTELDKLTAKLQKDMKRNSRLGVLYDLKQIKTIERYMRRLEFHISKVDELYEAYCIQR  
RLQDGASKMKQAFATSPASKAARESSTEINRSFKEYTENMCTIEVELENLLGEFSIKMKGLAGFARLCPGDQYEI  
FMKYGRQRWKLKGKIEVNGKQSWDGEETVFLPLIVGFISIKVTELKGLATHILVGSVTCETKELFAARPQVVAVD  
INDLGTIKLNLEITWYPFDVEDMTASSGAGNKAALQRRMSMYSQGTPETPTFKDHSFFSNLPDDIFENGKAAEE  
KMPLSLSFSDLPNGDCALTSHSTGSPSNSTNPEITITPAEFNLSSLASQNEGMDDTSSASSRNSLGEGQEPKSHL  
KEEDPEEPRKPASAPSEACRRQSSGAGAEHLFLENDVAEALLQESSEASELKPVELDTSEGNITKQLVKRLTSAE  
VPMATDRLLSEGSVGGEGCRSFLDGSLEDAFNGLLLALEPHKEQYKEFQDLNQEVMLDDILKK

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**FIGURE 508**

CGGGGGCTGGCGGCTGCGGCTCGGCGGAGAGTGCGGC**ATG**CGCTCGGAAAAGGAGGGGGCCGGAGGCCTTCGGGC  
GGCCGTTGCCGCGCGGGGCCCCGAGCGGGAGGGAGAAGCTGTGGCCCTAGAAGTGCAGTTCACCGCGACTCGCA  
GCAGCAGGAGGCTGAGACGCCGCCAACTTCGTCTCTCCGGTTGCGGGGGCGGTGCGGGCAAACCTCGCGAGGAGAA  
GAGGACGGCCCTGAGCAAGGTGGTTCATCCGCCGCTGCCTCCGGGGCTCACCAAGGAGCAGCTGGAGGAGCAGCT  
GCGCCCGCTGCCAGCACACGACTACTTCGAGTTCCTTCGCCGCCGACCTGAGTCTTTATCCTCATCTCTACTCAAG  
AGCATACATTAATTTTAGGAATCCTGATGACATCCTTCTTTTTAGAGATCGTTTTGATGGATATATCTTCCTTGA  
CAGCAAAGGCCTAGAATATCCTGCAGTGGTAGAGTTTGCTCCATTCCAGAAGATAGCCAAAAAGAAGCTGAGAAA  
AAAAGATGCCAAGACTGGAAGCATCGAAGATGATCCAGAATATAAGAAGTTTTTAGAAACCTACTGTGTGGAGGA  
AGAGAAGACCAGTGCCAACCCTGAGACTCTGCTGGGGGAGATGGAGGCGAAGACAAGAGAGCTCATTGCTAGAAG  
AACCACACCTCTTTTGGAATATATTAATAATAGAAAATTAGAAAAGCAGAGAATTCGAGAAGAGAAGCGAGAAGA  
ACGGAGGAGGAGAGAGTTAGAAAAGAAACGTTTGCGGGAAGAGGAAAAAAGAAGAAGAAGAAGAAGAAGATG  
CAAAAAAAGAGACAGATAAACAGAAGAAATTGCAGAGAAAGAAGTAAGGATTAAGCTTCTTAAGAAACCAGA  
AAAGGGAGAGGAACCAACCACAGAGAAACCAAAAGAAAGAGGAGAGGAGATTGATACTGGAGGTGGCAAGCAGGA  
ATCCTGTGCCCCCGGTGCAGTCGTAAAAGCCAGGCCCATGGAAGGCTCGCTGGAGGAGCCCCAGGAGACGTCACA  
CAGCGGCAGTGATAAAGAGCACAGGGATGTGGAGAGATCTCAAGAACAAGAATCTGAAGCACAAAGATACCATGT  
GGATGACGGCAGGAGGCACAGAGCTCACCACGAGCCTGAACGGCTTTCCAGAAGGAGTGAGGATGAGCAGAGATG  
GGGGAAGGACCTGGCCAAGACAGAGGGAAGAAGGGGAGCCAGGACAGCGGGGCTCCGGGGGAGGCCATGGAGAG  
ACTGGGAAGAGCGCAGAGGTGTGACGACAGTCCAGCACCCAGAAAAGAGCGACTGGCAAACAAGGACCGGCCAGC  
CTTGCACTGTATGATCCAGGAGCTCGCTTCCGAGCGCAGAGTGTGGCGGAAACAGGAGGATCTGCAAGGCAGA  
AGGTTTCGGGACTGGTCTTGAGAAGAGGGAAGAGGCAGAG**TGAG**TCACTGCACGCACCTGGCCTCCATGGACGAG  
CAAGGGCATCCCAGAAACGTGTAAATGACCCGAGTGTGACTGGGAAGGAGAACTTATTCCTTACCAGGAACTG  
GAAGCTAAAAATACAGAGGGTGACGTAGAAACACGCAGAAACCATTCTAAAGAAAGTAGTGATCTTGTATTAAAT  
TGAGCAGAATTCTCACAGATTTTACCATTCTGTATATAAACTAGTATTTGTTGTTTAGCCAAAACAGAAAATGAT  
TTCCACTGGACAGTAGAAAAATATGTGTAAATAGGGAAGAAAGTTAGTATTGGATCAGTGTGAGTCTTGAAGCA  
CTTTCAGTGCTGTGAGAACGACATCCACTTTGGGTTTCATTTCGTTTGTAAGCAGAGGAGCTGTCAGTCACTCGTG  
CTTCTCGGTGGCCTCTGAGCCATGGTGTGAGTGAAGAGTAGTTCTTGTGTTTACAACCTTTGTGAGTCAGCCA  
TGCCCGCAAAGCGTGCTGTGTTTTAGTCCTGGTAGGAATATTTATCAGAGTTCACACTATATAAAACCCAACAGC  
TTCAACTATTGCCCTTTCAACAGTTTTGCCACTGACCGGATAGAAACGGTTTCAGTCTCTGGATGGATGTGTTTG  
TGTTTTGTAACCATTACGGTTTTAAACCATGGTTTTAAGAATTTGCCCAAATAACAGAAATTTTGTTCGGGAAGGGA  
TAAACTAGATATAGCATAACAGACCTGTTTTGAGTTTTAGATACTTTATTTGTAAATAACTTAAATAGCTTTC  
TGAAACCGTGATTCTGTAGTTTCTTCTTTTCAGTGAAATTGCTAAATGTCAATGTATTTTTGGCACTGCGATTT  
TAACCATTATTATAATAAAAAATTTGTTAAAGAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 509**

MRSEKEGAGGLRAAVAARGPSGREKLSALEVQFHRDSQQQEAETPPTSSSGCGGGAGKPREEKRTALSKVVIRRL  
PPGLTKEQLEEQLRPLPAHDYFEFFAADLSLYPHLYSRAYINFRNPDDILLFRDRFDGYIFLDSKGLEYPAVVEF  
APFQKIAKKKLKKDAKTGSIEDDPEYKKFLETYCVVEEKT SANPETLLGEMEAKTRELIARRTTPLEYYIKNRK  
LEKQRIREEKREERRRRELEKKRLREEEKRRRREEERCKKKETDKQKKIAEKEVRIKLLKKPEKGEEPTTEKPKE  
RGEEIDTGGGKQESCAPGAVVKARPMEGSLEEPQETSHSGSDEHRDVERSQQESEAQRYHVDDGRRHRAHHEP  
ERLSRRSEDEQRWGKGPQDRGKKGSQDSGAPGEAMERLGRAQRCDDSPAPRKERLANKDRPALQLYDPGARFRA  
RECGGNRRICKAEGSGTGPEKREEAE

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**FIGURE 510**

GCCCCATCTCCTTGGGCTGCCCCGTGCTTCGTGCTTTGGACTACCGCCCAGCAGTGTCTGCCCTCTGCCTGGGCC  
TCGGTCCCTCCTGCACCTGCTGCCTGGATCCCCGGCCTGCCTGGGCCTGGGCCTTGTTCTCCCC**ATG**ACACCAC  
CTGAACGTCTCTTCCTCCCAAGGGTGTGTGGCACCACCCTACACCTCCTCCTTCTGGGGCTGCTGCTGGTTCTGC  
TGCTGGGGCCCCAGGGGCTCCCTGGTGTGGCCTCACACCTTCAGCTGCCCAGACTGCCCGTCAGCACCCCAAGA  
TGCATCTTGCCACAGCACCTCAAACCTGCTGCTCACCTCATTGGAGACCCAGCAAGCAGAACTCACTGCTCT  
GGAGAGCAAAACACGGACCGTGCTTCCCTCCAGGATGGTTTCTCCTTGAGCAACAATTCTCTCCTGGTCCCCACCA  
GTGGCATCTACTTCGTCTACTCCCAGGTGGTCTTCTCTGGGAAAGCCTACTCTCCCAAGGCCACCTCCTCCCCAC  
TCTACCTGGCCCATGAGGTCCAGCTCTTCTCCTCCCAGTACCCCTTCCATGTGCCTCTCCTCAGCTCCCAGAAGA  
TGGTGTATCCAGGGCTGCAGGAACCCTGGCTGCACTCGATGTACCACGGGGCTGCGTTCCAGCTCACCCAGGGAG  
ACCAGCTATCCACCACACAGATGGCATCCCCACCTAGTCCTCAGCCCTAGTACTGTCTTCTTTGGAGCCTTCG  
CTCTG**TAG**AACCTGGAAAAATCCAGAAAGAAAAAATAATTGATTTCAAGACCTTCTCCCCATTCTGCCTCCATTC  
TGACCATTTCAAGGGTTCGTCAACACCTCTCCTTTGGCCATTCCAACAGCTCAAGTCTTCCCTGATCAAGTCACCG  
GAGCTTTCAAAGAAGGAATTCTAGGCATCCCAGGGGACCACACCTCCCTGAACCATCCCTGATGTCTGTCTGGCT  
GAGGATTTCAAGCCTGCCTAGGAATTCCCAGCCCAAAGCTGTTGGTCTGTCCCACCAGCTAGGTGGGGCCTAGAT  
CCACACACAGAGGAAGAGCAGGCACATGGAGGAGCTTGGGGGATGACTAGAGGCAGGGAGGGGACTATTTATGAA  
GGCAAAAAAATTAAATTATTTATTTATGGAGGATGGAGAGAGGGGAATAATAGAAGAACATCCAAGGAGAAACAG  
AGACAGGCCCCAAGAGATGAAGAGTGAGAGGGCATGCGCACAAGGCTGACCAAGAGAGAAAGAAGTAGGCATGAGG  
GATCACAGGGCCCCAGAAGGCAGGGAAAGGCTCTGAAAGCCAGCTGCCGACCAGAGCCCCACACGGAGGCATCTG  
CACCCCTCGATGAAGCCCAATAAACCTCTTTTCTCTG

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**FIGURE 511**

MTPPERLFLPRVCGTTLHLLLLGLLLVLPGAQGLPGVGLTPSAAQTARQHPKMHLAHSTLKPAAHLIGDPSKQN  
SLLWRANTDRAFLQDGFSLSNNSLLVPTSGIYFVYSQVVFSGKAYSPKATSSPLYLAHEVQLFSSQYPFHVPLLS  
SQKMVYPGLQEPWLHSMYHGAAFQLTQGDQLSTHTDGIPHLVLSPSTVFFGAFAL



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**FIGURE 512**

TGAAAGGGCTGTCACCCGGCTTGGCCCCTTCCACACCCAACTGGGGCAAGCCTGACCCGGCGACAGGAGGCATG  
 AGGGGCCCCCGGCCGAAATGACAGTGCTGGCGCCAGCCTGGAGCCCAACAACCTATCTCCTCCTGCTGCTGCTGC  
 TGAGCTCGGGACTCAGTGGGACCCAGGACTGCTCCTTCCAACACAGCCCCATCTCCTCCGACTTCGCTGTCAAAA  
 TCCGTGAGCTGTCTGACTACCTGCTTCAAGATTACCCAGTCACCGTGGCCTCCAACCTGCAGGACGAGGAGCTCT  
 GCGGGGCGCTCTGGCGGCTGGTCCTGGCACAGCGCTGGATGGAGCGGCTCAAGACTGTCGCTGGGTCCAAGATGC  
 AAGGCTTGCTGGAGCGCGTGAACACGGAGATACACTTTGTACCAAATGTGCCTTTCAGCCCCCCCCCAGCTGTC  
 TTCGCTTCGTCCAGACCAACATCTCCCGCTCCTGCAGGAGACCTCCGAGCAGCTGGTGGCGCTGAAGCCCTGGA  
 TCACTCGCCAGAACTTCTCCCGGTGCCTGGAGCTGCAGTGTGACCCCGACTCCTCAACCCTGCCACCCCCATGGA  
 GTCCCCGGCCCCCTGGAGGCCACAGCCCCGACAGCCCCGACCCCCCTCTGCTCCTCCTACTGCTGCTGCCGTGG  
 GCCTCCTGCTGCTGGCCGCTGCCTGGTGCCTGCACTGGCAGAGGACGCGGCGGAGGACACCCGCCCTGGGGAGC  
 AGGTGCCCCCGTCCCCAGTCCCCAGGACCTGCTGCTTGTGGAGCAGTGAACCTGGCCAAGGCCTCATCCTGGGGA  
 GGATACGTAGGCACACAGAGGGGAGTCACCAGCC

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**FIGURE 513**

MTVLAPAWSPTTYLLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGALWR  
LVLAQRWMERLKTAVAGSKMQGLLERVNTTEIHFVTKCAFQPPPSCLRFVQTNISRLLQETSEQLVALKPWITRQNF  
SRCLELQCQPDSSTLPPWSPRPLEATAPTAPQPPLLLLLLLPVGLLLAAAWCLHWQTRRRRTPRPGEQVPPVP  
SPQDLLVEH

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**FIGURE 514A**

CTTCAGATAGATTATATCTGGAGTGAAGGATCCTGCCACCTACGTATCTGGCATAGTATTCTGTGTAGTGGGATG  
AGCAGAGAAACAAAACAAAATAATCCAGTGAGAAAAGCCGTAAATAAACCTTCAGACCAGAGATCTATTCTCCA  
GCTTATTTTAAGCTCAACTTAAAAAGAAGAACTGTTCTCTGATTCTTTTCGCCCTTCAATACACTTAATGATTAA  
CTCCACCCTCCTTCAAAAGAAACAGCATTTCCTACTTTTATACTGTCTATATGATTGATTGTCACAGCTCATCTG  
GCCAGAAGAGCTGAGACATCCGTTCCCCTACAAGAACTCTCCCCGGGTGGAACAAGATGATTATCAAGTGTCA  
AGTCCAATCTATGACATCAATTATTATACATCGGAGCCCTGCCAAAAATCAATGTGAAGCAAATCGCAGCCCGC  
CTCCTGCCTCCGCTCTACTCACTGGTGTTCATCTTTGGTTTTGTGGGCAACATGCTGGTCATCCTCATCCTGATA  
AACTGCAAAAGGCTGAAGAGCATGACTGACATCTACCTGCTCAACCTGGCCATCTCTGACCTGTTTTCTTCTT  
ACTGTCCCCTTCTGGGCTCACTATGCTGCCGCCAGTGGGACTTTGGAAATACAATGTGTCAACTCTTGACAGGG  
CTCTATTTTATAGGCTTCTTCTCTGGAATCTTCTTCATCATCCTCCTGACAATCGATAGGTACCTGGCTGTCGTC  
CATGCTGTGTTTTGCTTTAAAAAGCCAGGACGGTCACCTTTGGGGTGGTGACAAGTGTGATCACTTGGGTGGTGGCT  
GTGTTTGGCTCTCTCCCAGGAATCATCTTTACCAGATCTCAAAAAGAAGGTCTTCATTACACCTGCAGCTCTCAT  
TTTCCATACAGTCAGTATCAATTCTGGAAGAATTTCCAGACATTAAAGATAGTCATCTTGGGGCTGGTCTGCGG  
CTGCTTGTGTCATGGTCATCTGCTACTCGGGAATCCTAAAACTCTGCTTCGGTGTGGAATGAGAAGAAGAGGCAC  
AGGGCTGTGAGGCTTATCTTCACCATCATGATTGTTTTATTTCTCTTCTGGGCTCCCTACAACATTGTCTTCTC  
CTGAACACCTTCAGGAATCTTTGGCCTGAATAATTGCAGTAGCTCTAACAGGTTGGACCAAGCTATGCAGGTG  
ACAGAGACTCTTGGGATGACGCACTGCTGCATCAACCCCATCATCTATGCCTTTGTGCGGGAGAAGTTCAGAAAC  
TACCTCTTAGTCTTCTTCCAAAAGCACATTGCCAACGCTTCTGCAAATGCTGTTCTATTTTCCAGCAAGAGGCT  
CCCGAGCGAGCAAGCTCAGTTTACACCCGATCCACTGGGGAGCAGGAAATATCTGTGGGCTTGTGACACGGACTC  
AAGTGGGCTGGTGACCCAGTCAGAGTTGTGCACATGGCTTAGTTTTTCATACACAGCCTGGGCTGGGGGTGGGGTG  
GGAGAGGTCTTTTTTAAAAGGAAGTTACTGTTATAGAGGGTCTAAGATTCAATCCATTTATTTGGCATCTGTTTAA  
AGTAGATTAGATCTTTTAAAGCCCATCAATTATAGAAAGCCAAATCAAAATATGTTGATGAAAAATAGCAACCTTT  
TTATCTCCCCTTCACATGCATCAAGTTATTGACAACTCTCCCTTCACTCCGAAAGTTCCTTATGTATATTTAAA  
AGAAAGCCTCAGAGAATTGCTGATTCTTGAGTTTAGTGATCTGAACAGAAATACCAAAATTATTTTCAGAAATGTA  
CAACTTTTTTACCTAGTACAAGGCAACATATAGGTTGTAAATGTGTTTTAAAACAGGTCTTTGTCTTGCTATGGGGA  
GAAAAGACATGAATATGATTAGTAAAGAAATGACACTTTTTCATGTGTGATTTCCTCCCAAGGTATGGTTAATAA  
GTTTCACTGACTTAGAACCAGGCGAGAGACTTGTGGCCTGGGAGAGCTGGGGAAAGCTTCTTAAATGAGAAGGAAT  
TTGAGTTGGATCATCTATTGCTGGCAAAGACAGAAGCCTCACTGCAAGCACTGCATGGGCAAGCTTGGCTGTAGA  
AGGAGACAGAGCTGGTTGGGAAGACATGGGGAGGAAGGACAAGGCTAGATCATGAAGAACCTTGACGGCATTGCT  
CCGTCTAAGTCATGAGCTGAGCAGGGAGATCCTGGTTGGTGTGTCAGAAAGTTTACTCTGTGGCCAAAGGAGGGT  
CAGGAAGGATGAGCATTTAGGGCAAGGAGACCACCAACAGCCCTCAGGTCAGGCTGAGGATGGCCTCTGCTAAGC  
TCAAGGCGTGAGGATGGGAAGGAGGGAGGTATTCGTAAGGATGGGAAGGAGGGAGGTATTCGTGCAGCATATGAG  
GATGCAGAGTCAGCAGAACTGGGGTGGATTGGTTTGGAAAGTGAGGGTCAGAGAGGAGTCAGAGAGAATCCCTAG  
TCTTCAAGCAGATTGGAGAAACCTTGAAAAGACATCAAGCACAGAAGGAGGAGGAGGTTTAGGTCAAGAAG  
AAGATGGATTGGTGTAAGGATGGGTCTGGTTTGAGAGCTTGAACACAGTCTCACCCAGACTCCAGGCTGTCT  
TTCCTGAATGCTTCTGACTTCATAGATTTCTTCCCATCCCAGCTGAAATACTGAGGGGTCTCCAGGAGGAGAC  
TAGATTTATGAATACACGAGGTATGAGGTCTAGGAACATACTTCAGCTCACACATGAGATCTAGGTGAGGATTGA  
TTACCTAGTAGTCATTTTCATGGGTTGTTGGGAGGATTCTATGAGGCAACCACAGGCAGCATTTAGCACATACTAC  
ACATTCAATAAGCATCAAACTCTTAGTTACTCATTACAGGATAGCACTGAGCAAAGCATTGAGCAAAGGGGTCCC  
ATATAGGTGAGGGAAAGCCTGAAAACTAAGATGCTGCCTGCCAGTGACACAAAGTGATAGGTATCATTTTCTGCA  
TTTAAACCGTCAATAGGCAAAAGGGGGGAAGGGACATATTCAATTTGGAAATAAGCTGCCTTGAGCCTTAAACCCAC  
AAAAGTACAATTTACCAGCCTCCGTATTTAGACTGAATGGGGGTGGGGGGGGCGCCTTAGGTACTTATTCCAGA  
TGCCTTCTCCAGACAAACCAGAAGCAACAGAAAAATCGTCTCTCCCTCCCTTTGAAATGAATATACCCCTTAGT  
GTTTGGGTATATTCAATTTCAAAGGGAGAGAGAGAGGTTTTTTTTCTGTCTTTCTCATATGATTGTGCACATACTT  
GAGACTGTTTTGAATTTGGGGGATGGCTAAAACCATCATAGTACAGGTAAGGTGAGGGAATAGTAAGTGGTGAGA  
ACTACTCAGGGAATGAAGGTGTCAGAATAATAAGAGGTGCTACTGACTTTTCTCAGCCTCTGAATATGAACGGTGA  
GCATTGTGGCTGTCAGCAGGAAGCAACGAAGGGAAATGTCTTTCTTTTGTCTTAAAGTTGTGGAGAGTGCAACA  
GTAGCATAGGACCTACCTCTGGGCCAAGTCAAAGACATTCTGACATCTTAGTATTGTCATATTCTTATGTATG

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**FIGURE 514B**

TGAAAGTTACAAATTGCTTGAAAGAAAATATGCATCTAATAAAAAACACCTTCTA

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**FIGURE 515**

MDYQVSSPIYDINYYTSEPCQKINVKQIAARLLPPLYSLVFIFGFVGNMLVILILINCKRLKSMTDIYLLNLAIS  
DLFFLLTVPFWAHYAAAQWDFGNTMCQLLTGLYFIGFFSGIFFIILLTIDRYLAVVHAVFALKARTVTFGVVTSTV  
ITWVVAVFASLPGIIFTRSQKEGLHYTCSSHFPYSQYQFWKNFQTLKIVILGLVLP LLVMVICYSGILKTLLRCR  
NEKKRHRAVRLIFTIMIVYFLFWAPYNIVLLNTFQEFFGLNNCSSNRDQAMQVTETLGMTHCCINPIIYAFV  
GEKFRNYLLVFFQKHIAKRFCKCCSIFQQEAPERASSVYTRSTGEQEISVGL

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**FIGURE 516A**

TGCAGAGAACAGAGAAAGGACATCTGCGAGGAAAGTTCCCTGATGGCTGTCAACAAAGTGCCACGTCTCTATGGC  
TGTGTACGCTGAGCACACGATTTTATCGCGCCTATCATATCTTGGTGCATAAACGCACCTCACCTCGGTCAACCC  
TTGCTCCGTCTTATGAGACAGGCTTTATTATCCGCATTTTATATGAGGGGAATCTGACGGTGGAGAGAGAATTAT  
CTTGCTCAAGGCGACACAGCAGAGCCCACAGGTGGCAGAATCCACCCGAGCCCGCTTCGACCCGCGGGGTGGAA  
ACCACGGGCGCCCCGCGGCTGCGCTTCCAGAGCTGAACTGAGAAGCGAGTCCTCTCCGCCCTGCGGCCACCGCC  
CAGCCCCGACCCCCGCCCCGCGCCGATCCTCACTCGCCGCCAGCTCCCCGCGCCACCCCGGAGTTGGTGGCGCA  
GAGGCGGGAGGCGGAGGCGGGAGGGCGGGCGCTGGCACCGGGAACGCCCGAGCGCCGGCAGAGAGCGCGGAGAGC  
GCGACACGTGCGGCCCAGAGCACCGGGGCCACCCGGTCCCCGCGAGGCCCGGGACCGCGCCCGCTGGCAGGCGACA  
CGTGGAAGAATACGGAGTTCTATACCAGAGTTGATTGTT**GATG**GCACATACTTTTAGAGGATGCTCATTGGCATT  
TATGTTTATAATCACGTGGCTGTTGATTAAAGCAAAAATAGATGCGTGCAAGAGAGGGCGATGTGACTGTGAAGCC  
TTCCCATGTAATTTTACTTGGATCCACTGTCAATATTACATGCTCTTTGAAGCCAGACAAGGCTGCTTTCACTA  
TTCCAGACGTAACAAGTTAATCCTGTACAAGTTTGACAGAAGAATCAATTTTCACCATGGCCACTCCCTCAATTC  
TCAAGTCACAGGTCTTCCCCTTGGTACAACCTTGTTTGTCTGCAAACTGGCCTGTATCAATAGTGATGAAATTCA  
AATATGTGGAGCAGAGATCTTCGTTGGTGTGCTCCAGAACAGCCTCAAAATTTATCCTGCATACAGAAGGGAGA  
ACAGGGGACTGTGGCCTGCACCTGGGAAAGAGGACGAGACACCCACTTATACACTGAGTATACTCTACAGCTAAG  
TGGACCAAAAAAATTTAACCTGGCAGAAGCAATGTAAAGACATTTATTGTGACTATTTGGACTTTGGAATCAACCT  
CACCCCTGAATCACCTGAATCCAATTTACAGCCAAGGTTACTGCTGTCAATAGTCTTGGAAGCTCCTCTTCACT  
TCCATCCACATTACATTCTTGGACATAGTGAGGCCTCTTCTCCGTGGGACATTAGAATCAAAATTTCAAAAGGC  
TTCCGTGAGCAGATGTACCCTTTATTGGAGAGATGAGGGACTGGTACTGCTTAATCGACTCAGATATCGGCCCCAG  
TAACAGCAGGCTCTGGAATATGGTTAATGTTACAAAGGCCAAAGGAAGACATGATTTGCTGGATCTGAAACCATT  
TACAGAATATGAATTTTCAATTTCTCTAAGCTACATCTTTATAAGGGAAGTTGGAGTGATTGGAGTGAATCATT  
GAGAGCACAAACACCAGAAGAAGAGCCTACTGGGATGTTAGATGTCTGGTACATGAAACGGCACATTGACTACAG  
TAGACAACAGATTTCTCTTTTCTGGAAGAATCTGAGTGTCTCAGAGGCAAGAGGAAAAATTCTCCACTATCAGGT  
GACCTTGCAGGAGCTGACAGGAGGGAAAGCCATGACACAGAACATCACAGGACACACCTCCTGGACCACAGTCAT  
TCCTAGAACCAGAAATTTGGGCTGTGGCTGTGTCTGCAGCAAAATTCAAAAGGCAGTTCTCTGCCCACTCGTATTAA  
CATAATGAACCTGTGTGAGGCAGGTTGCTGGCTCCTCGCCAGGTCTCTGCAAACTCAGAGGGCATGGACAACAT  
TCTGGTGACTTGGCAGCCTCCCAGGAAAGATCCCTCTGCTGTTTACAGGAGTACGTGGTGGAATGGAGAGAGCTCCA  
TCCAGGGGGTGACACACAGGTCCCTCTAAACTGGCTACGGAGTCGACCCTACAATGTGTCTGCTCTGATTTTCA  
GAACATAAAATCCTACATCTGTTATGAAATCCGTGTGTATGCACTCTCAGGGGATCAAGGAGGATGCAGCTCCAT  
CCTGGGTAACTCTAAGCACAAAGCACCCTGAGTGCCCCCACATTAATGCCATCACAGAGGAAAAGGGGAGCAT  
TTTAATTTTATGGAACAGCATTCCAGTCCAGGAGCAAAATGGGCTGCCTCCTCCATTATAGGATATACTGGAAGGA  
ACGGGACTCCAACCTCCAGCCTCAGCTCTGTGAAATTCCTACAGAGTCTCCCAAAATTCACATCCAATAAACAG  
CCTGCAGCCCCGAGTGACATATGTCCTGTGGATGACAGCTCTGACAGCTGCTGGTGAAAGTTCCACCGGAAATGA  
GAGGGAATTTTGTCTGCAAGGTAAAGCCAATTGGATGGCGTTTGTGGCACCAAGCATTGTGATTGCTATCATCAT  
GGTGGGCATTTTCTCAACGCATTACTTCCAGCAAAAGGTGTTTGTCTCCTAGCAGCCCTCAGACCTCAGTGGTG  
TAGCAGAGAAATTCAGATCCAGCAATAGCACTTGCGCTAAGAAATATCCCATTCAGAGGAGAAGACACAGCT  
GCCCTTGACAGGCTCCTGATAGACTGGCCACGCCTGAAGATCCTGAACCGCTGGTCATCAGTGAAGTCCTTCA  
TCAAGTGACCCCAAGTTTTTCAACATCCCCCTGCTCCAACCTGGCCACAAAGGGAAAAAGGAATCCAAGGTATCA  
GGCCTCTGAGAAAGACATGATGCACAGTGCCTCAAGCCCACCACCTCCAAGAGCTCTCCAAGCTGAGAGCAGACA  
ACTGGTGGATCTGTACAAGGTGCTGGAGAGCAGGGGCTCCGACCCAAAGCCAGAAAACCCAGCCTGTCCCTGGAC  
GGTGTCTCCAGCAGGTGACCTTCCCACCCATGATGGCTACTTACCCTCCAACATAGATGACCTCCCCTCACATGA  
GGCACCTCTCGTGACTCTCTGGAAGAACTGGAGCCTCAGCACATCTCCCTTTCTGTTTTCCCTCAAGTTCTCT  
TCACCCACTCACCTTCTCCTGTGGTGATAAGCTGACTCTGGATCAGTTAAAGATGAGGTGTGACTCCCTCATGCT  
**CTG**AGTGGTGAGGCTTCAAGCCTTAAAGTCAGTGTGCCCTCAACCAGCACAGCCTGCCCAATTCCCCAGCCCC  
TGCTCCAGCAGCTGTCTCTGCGTGCCACCATCGGTCTGGCTGCAGCTAGAGGACAGGCAAGCCAGCTCTGGG  
GGAGTCTTAGGAACGGGAGTTGGTCTTCACTCAGATGCCTCATCTTGCCTTTCCAGGGCCTTAAATTTACATC  
CTTCACTGTGTGGACCTAGAGACTCCAACCTTGAATTCCTAGTAACTTTCTTGGTATGCTGGCCAGAAAGGGAAAT  
GAGGAGGAGAGTAGAAACCACAGCTCTTAGTAGTAATGGCATACAGTCTAGAGGACCATTATGCAATGACTATT

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**FIGURE 516B**

TCTAAAGCACCTGCTACACAGCAGGCTGTACACAGCAGATCAGTACTGTTCAACAGAACTTCCTGAGATGATGGA  
AATGTTCTACCTCTGCACTCACTGTCCAGTACATTAGACACTAGGCACATTGGCTGTTAATCACTTGGAATGTGT  
TTAGCTTGACTGAGGAATTAAATTTTGATTGTAAATTTAAATCGCCACACATGGCTAGTGGCTACTGTATTGGAG  
TGCACAGCTCTAGATGGCTCCTAGATTATTGAGAGCCTCCAAAACAAATCAACCTAGTTCTATAGATGAAGACAT  
AAAAGACACTGGTAAACACCAATGTAAAAGGGCCCCCAAGGTGGTCATGACTGGTCTCATTTCAGAAAGTCTAAG  
AATGTACCTTTTTCTGGCCGGGCGTGGTAGCTCATGCCTGTAATCCCAGCACTTTGGGAGGCTGA

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**FIGURE 517**

MAHTFRGCSLAFMFIIITWLLIKAKIDACKRGDVTVKPSHVILLGSTVNITCSLKPRQGC FHYSSRNKLILYKFDR  
RINFHHGHSLSNSQVTGLPLGTTLFVCKLACINSDEIQICGAEIFVGVAPEQPQNLS CIQKEQGT VACTW ERGRD  
THLYTEYTLQLSGPKNL TWQKQCKDIYCDYLD FGINLTPES PESNFTAKVTAVNSLGSSSSLPSTFTFLDIVRPL  
PPWDIRIKFQKASVSRCTLYWRDEGLVLLNRLRYRPSNSRLWNMVNVT KAKGRHDLLDLKPFTEYEFQISSKLHL  
YKGSWSDWSESLRAQTPEEEPTGMLDVWYMKRHDYSRQQISLFWKNLSVSEARGKILHYQVTLQELTGGKAMTQ  
NITGHTSWTTVIPRTGNWAVAVSAANSKGSSLPTRINIMNLC EAGLLAPRQVSANSEGMDNILVTWQPPRKDPSA  
VQEYVVEWRELHPGGDTQVPLNWLRSRPNVSALISENIKSYICYEIRVYALSGDQGGCSSILGNSKHKAPLSGP  
HINAITEEKGSILISWNSIPVQEQMGCLLHYRIYWKERDSNSQPOLCEIPYRVSQNSHPINSLQPRVTYVLWMTA  
LTAAGESSHGNEREFCLQKANWMAFVAPSICIAIIMVGIFSTHYFQQKVFLAALRPQWCSREIPDPANSTCA  
KKYPFAEKTQLPLDRLLIDWPTPEDPEPLVISEVLHQVTPVFRHPPCSNWPQREKGIQGHQASEKDMMHSASSP  
PPPRALQAESRQLVDLYKVLESRGSDPKPENPACPWTVLPAGDLPTHGYLPSNIDDLPSHEAPLADSLEELEPQ  
HISLSVFPSSSLHPLTFSCGDKLTLDQLKMRCDSLML



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**FIGURE 518**

CATTGAGAGACAGAAGGTGGATAGACAAATCTCCACCTTCAGACTGGTAGGCTCCTCCAGAAGCCATCAGACAGG  
AAGATGTGAAAATCCCCAGCACTCATCCCAGAATCACTAAGTGGCACCTGTCTGGGCCAAAGTCCCAGGACAGA  
CCTCATTGTTCTCTGTGGGAATACCTCCCCAGGAGGGCATCTGGATTTCCTCCCTTGCAACCCAGGTGAGAAGT  
TTCATCGTCAAGGTTGTTTCATCTTTTTTTCTGTCTAACAGCTCTGACTACCACCAACCTTGAGGCACAGTG  
AAGACATCGGTGGCCACTCCAATAACAGCAGGTACAGCTGCTCTTCTGGAGGTGTCCTACAGGTGAAAAGCCCA  
GCGACCCAGTCAGGATTTAAGTTTACCTCAAAAATGAAGATTTTAACATGGAGAGTGACAGCTTTGAAGATTTT  
TGGAAAGGTGAAGATCTTAGTAATTACAGTTACAGCTCTACCCTGCCCCCTTTTCTACTAGATGCCGCCCCATGT  
GAACCAGAATCCCTGGAAATCAACAAGTATTTTGTGGTCATTATCTATGCCCTGGTATTCTGTGAGCCTGCTG  
GGAAACTCCCTCGTGATGCTGGTCATCTTATACAGCAGGGTCGGCCGCTCCGTCAGTGTCTACCTGCTGAAC  
CTAGCCTTGGCCGACCTACTCTTTGCCCTGACCTTGCCCATCTGGGCCGCTCCAAGGTGAATGGCTGGATTTTT  
GGCACATTCTGTGCAAGGTGGTCTCACTCCTGAAGGAAGTCAACTTCTATAGTGGCATCCTGCTACTGGCCTGC  
ATCAGTGTGGACCGTTACCTGGCCATTGTCCATGCCACACGCACACTGACCCAGAAGCGCTACTTGGTCAAATTC  
ATATGTCTCAGCATCTGGGGTCTGTCTTGTCTCTGGCCCTGCCTGTCTTACTTTTCCGAAGGACCGTCTACTCA  
TCCAATGTTAGCCCAGCCTGCTATGAGGACATGGGCAACAATACAGCAAACCTGGCGGATGCTGTTACGGATCCTG  
CCCCAGTCCCTTGGCTTCATCGTGCCACTGCTGATCATGCTGTTCTGCTACGGATTACCCCTGCGTACGCTGTTT  
AAGGCCCCACATGGGGCAGAAGCACCGGGCCATGCGGGTCATCTTGTCTGTCCTCATCTTCTGTCTGCTGCTGG  
CTGCCCTACAACCTGGTCTGTGCTGGCAGACACCCTCATGAGGACCCAGGTGATCCAGGAGACCTGTGAGCGCCGC  
AATCACATCGACCGGGCTCTGGATGCCACCGAGATTCTGGGCATCCTTCACAGCTGCCTCAACCCCTCATCTAC  
GCCTTCATTGGCCAGAAGTTTCGCCATGGACTCCTCAAGATTCTAGCTATACATGGCTTGATCAGCAAGGACTCC  
CTGCCCAAAGACAGCAGGCCTTCCTTTGTTGGCTCTTCTTCAGGGCACACTTCCACTACTCTCTAAGACCTCCTG  
CCTAAGTGACGCCCCGTGGGGTTCTCTCTTTCACAGTCACATTCCAAGCCTCATGTCCACTGGTTCTTCTT  
GGTCTCAGTGTCAATGCAGCCCCATTGTGGTCACAGGAAGTAGAGGAGGCCACGTTCTTACTAGTTTCCCTTGC  
ATGGTTTAGAAAAGCTTGCCCTGGTGCCTCACCCCTTGCCATAATTACTATGTCATTTGCTGGAGCTCTGCCCATC  
CTGCCCTGAGCCCATGGCACTCTATGTTCTAAGAAGTGAAAATCTACACTCCAGTGAGACAGCTCTGCATACTC  
ATTAGGATGGCTAGTATCAAAAGAAAGAAAATCAGGCTGGCCAACGGGGTGAAACCTGTCTCTACTAAAAATACA  
AAAAAAAAAAAAAAAAATTAGCCGGGCGTGGTGGTGAGTGCTGTAATCACAGCTACTTGGGAGGCTGAGATGGGAGA  
ATCACTTGAACCCGGGAGCAGAGGTTGCAGTGAGCCGAGATTGTGCCCTGCCATCCAGCCTGAGCGACAGTGAG  
ACTCTGTCTCAGTCCATGAAGATGTAGAGGAGAACTGGAACCTCTCGAGCGTTGCTGGGGGGGATTGTAAATGG  
TGTGACCACTGCAGAAGACAGTATGGCAGCTTTCTCAAAACTTCAGACATAGAATTAACACATGATCCTGCAAT  
TCCACTTATAGGAATTGACCCACAAGAAATGAAAGCAGGGACTTGAACCCATATTTGTACACCAATATTCATAGC  
AGCTTATTCACAAGACCCAAAAGGCAGAAGCAACCCAAATGTTTCATCAATGAATGAATGGCTAAGCAAAAT  
GTGATATGTACCTAACGAAGTATCCTTCAGCCTGAAAGAGGAATGAAGTACTCATACTGTTACAACACGGACGA  
ACCTTGAAAACCTTTATGCTAAGTGAAATAAGCCAGACATCAACAGATAAATAGTTTATGATTCCACCTACATGAG  
GTACTGAGAGTGAACAAATTTACAGAGACAGAAAGCAGAACAGTGATTACCAGGGACTGAGGGGAGGGGAGCATG  
GGAAGTGACGGTTTAAATGGGCACAGGGTTTATGTTTAGGATGTTGAAAAAGTTCTGCAGATAAACAGTAGTGATA  
GTTGTACCGCAATGTGACTTAATGCCACTAAATTGACACTTAAAAATGGTTTAAATGGTCAATTTTGTATGTAT  
ATTTTATATCAATTTAAAAAAAACCTGAGCCCCAAAAGGTATTTAATCACCAAGGCTGATTAAACCAAGGCTA  
GAACCACTGCCTATATTTTTTGTAAATGATTTCAATATCTTTTTTTTAAATAAACCATTTTTTACTTGGGT  
GTTTAT

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**FIGURE 519**

MEDFNMESDSFEDFWKGEDLSNYSYSSTLPPFLLDAAPCEPESLEINKYFVVIIYALVFLLSLLGNSLVMLVILY  
SRVGRSVTDVYLLNLALADLLFALTLP IWAASKVNGWIFGTFLCKVVSLLKEVNFYSGILLLACISVDRYLAIVH  
ATRTLTQKRYLVKFICLSIWGLSLLLALPVLLFRRTVYSSNVSPACYEDMGNNNTANWRMLLRILPQSFGFIVPLL  
IMLFCYGFILRTLFKAHMGQKHRAMRVIFAVVLIFLLCWLPYNLVLLADTLMRTQVIQETCERRNHIDRALDATE  
ILGILHSCLNPLIYAFIGQKFRHGLLKILAIHGLISKDSL PKDSRPSFVGSSSGHTSTTL

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**FIGURE 520**

TTGGGGGTTTATTCTCTTCCCTTCTAACTTGACAGGGTCTTGCTCTGTCATTTCAGGCAAGAGTGCAGTAGTGTGA  
TCACTTCTTACTGCCGCCTCAAGCTTCCAGCCTCAACTCAAGCAATCCTCCCACCTCAGCCACCCAAGTGGCTGG  
GACTACAGATTAAAGAAATGACCCAAAATAAATTAAAGCTTTGTTCAAAGCCAATGTGTATACTGAAGTGCCTGAT  
GGAGGATGGGGCTGGGCGGTAGCTGTTTCATTTTTCTTCGTTGAAGTCTTCACCTACGGCATCATCAAGACATTT  
GGTGTCTTCTTTAATGACTTAATGGACAGTTTTAATGAATCCAATAGCAGGATCTCATGGATAATCTCAATCTGT  
GTGTTTGTCTTAACATTTTTAGCTCCCCTCGCCACAGTCCTGAGCAATCGTTTCGGACACCGTCTGGTAGTGATG  
TTGGGGGGGCTACTTGTGAGCACCAGGATGGTGGCCGCTCCTTCTCACAAGAGGTTTTCTCATATGTACGTCGCC  
ATCGGCATCATCTCTGGTCTGGGATACTGCTTTAGTTTTCTCCCACTGTAACCATCCTATCACAATATTTTTGGC  
AAAAGACGTTCCATAGTCACTGCAGTTGCTTCCACAGGAGAATGTTTCGCTGTGTTTGCTTTCGCACCAGCAATC  
ATGGCTCTGAAGGAGCGCATTGGCTGGAGATACAGCCTCCTTTCGTGGGCCTACTACAGTTAAACATTGTCATC  
TTCGGAGCACTGCTCAGACCCATCATTATCAGAGGACCAGCGTCACCGAAAATAGTCATCCAGGAAAATCGGAAA  
GAAGCGCAGTATATGCTTGAAAATGAGAAAACACGAACCTCAATAGACTCCATTGACTCAGGAGTAGAACTAACT  
ACCTCACCTAAAAATGTGCCTACTCACACTAACCTGGAACCTGGAGCCGAAGGCCGACATGCAGCAGGTCTCTGGTG  
AAGACCAGCCCCAGGCCAAGCGAAAAGAAAGCCCCGCTATTAGACTTCTCCATTTTTGAAAGAGAAAAGTTTTATT  
TGTTATGCATTATTTGGTCTCTTTGCAACACTGGGATTCTTTGCACCTTCCTTGTACATCATTCCTCTGGGCATT  
AGTCTGGGCATTGACCAGGACCGCGCTGCTTTTTTATTATCTACGATGGCCATTGCAGAAGTTTTTCGGAAGGATC  
GGAGCTGGTTTTGTCTCAACAGGGAGCCCATTCGTAAGATTTACATTGAGCTCATCTGCGTCATCTTATTGACT  
GTGTCTCTGTTTGCCTTTACTTTTGCTACTGAATTCTGGGGTCTAATGTGCATGCAGCATATTTTTTGGGTTTATG  
GTTGGAACAATAGGAGGACTCACATTCCACTGCTTGCTGAAGATGATGTCGTGGGCATTGCAGAAGATGTCTTCT  
GCAGCTGGGGTCTACATCTTCATTAGAGCATAGCAGGACTGGCTGGACCGCCCCTTGAGGTTTGTTGGTGGAC  
CAAAGTAAGATCTACAGCAGGGCCTTCTACTCCTGCGCAGCTGGCATGGCCCTGGCTGCTGTGTGCCTCGCCCTG  
GTGAGACCGTGTAAGATGGGACTGTGCCAGCGTCATCACTCAGGTGAAACAAAGGTAGTGAGCCATCGTGGGAAG  
ACTTTACAGGACATACCTGAAGACTTTCTGGAAATGGATCTTGCAAAAAATGAGCACAGAGTTCACGTGCAAATG  
GAGCCGGTATGACACACTTTCTTACAACAACAGCCACTGTGTTGGCTGGAGAGGGATGGGGTGGGCCCCAACGGGG  
ACACAAGGAGGCAGAGGAGCTAACCCTCTACTCCACTTTCAAAACACTACATTTTAAAGGGAATGTGTATGTGAAG  
AGCACTACCAACATCGCTTTTGTGTTTGTGTTTGTGTTTAAAGCTTTTTTTTTTTGCTTGTTTTTAAAGCCAAA  
ACAAAAACAACCAAGCACTCTTCATATATAAATCTGGCTGTATTCAGTAGCAATACAAGAGATATGTAGAAAG  
ACTCTTTGGTTCACATTCGATATTAATAAGTAGACATGAACTGGCAAAGTGGTTTTTAAAGCTTTTACGTGGGA  
TAAATGATTTTCTTTTTTCTTTTCTTTCTTCTATGGTCTTGTCTGAATAAACTACTCTCTGAATAAAACAAC  
ATCCAACCCAGGTCATTGAAATGAAATTGGCCAGTC

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**FIGURE 521**

MTQNKLLCSKANVYTEVPDGGWGWAVVSFFFVEVFTYGIKTFGVFFNDLMSDFNESNSRISWIIISICVFVLT  
FSAPLATVLSNRFGHRLVVMLGGLLVSTGMVAASFSQEVSHMYVAIGIISGLGYCFSFLPTVTILSQYFGKRRI  
VTAVASTGECFAVFAFAPAIMALKERIGWRYSLLFVGLLQLNIVIFGALLRPIIIRGPASPKIVIQENRKEAQM  
LENEKTRTSIDSIDSGVELTTSKPNVPTHNTNLELEPKADMQQVLVKTSRPSEKKAPLLDFSILKEKSFICYALF  
GLFATLGFFAPSLYIIPLGISLGIDQDRAAFLLSTMAIAEVFGRIGAGFVLNREPIRKIYIELICVILLTVSLFA  
FTFATEFWGLMSCSIFFGFMVGTIGGLTFHCLLKMMSWALQKMSSAAGVYIFIQSIAGLAGPPLAGLLVDQSKIY  
SRAFYSCAAGMALAAVCLALVRPCKMGLCQRHSGETKVVSHRGKTLQDIPEDFLEMDLAKNEHRVHVQMEPV

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**FIGURE 522**

GCGGGGTAGTCGGCGCGAGGCGGAGCTTGGCAGTTCCGTCCACTTCAGCCGCAGCGTCCCTCGCCGGGTGTCTCG  
 CCGCAGCCTCCGGAGAGGAACAGACCCTCACTCTCTCTGTTCAGAAAAATCTCTGCTCCAGCTCAGCCACCTGCTG  
 AAGGGACAGAAGGGACTGCCCCAGGTGGGGGTCCCCCTGGCCCTCCTCCTAACATGACCAGTAACAGACGACTAC  
 AGCAAACCCAGGCACAAGTGGAGGAGGTGGTGGACATCATACTGTGAACGTGGACAAGGTCCTGGAGAGGGACC  
 AGAAGCTGTCAGAGCTGGATGACCGAGCTGATGCCTTGCAGGCAGGAGCATCACAAATTTGAGAGCAGTGCTGCCA  
 AGCTAAAGAGGAAGTATTGGTGGAAAACTGCAAGATGATGATCATGCTGGGAGCCATCTGTGCCATCATCGTGG  
 TAGTTATTGTAAGGCGGGACTGAAAGAGCTGGAAGAAAGCAGTCAGTACCCTCCCAACGGCCCCCCTCGAAGGTCT  
 CCACTCTCCTCTGGGCTCCTCCTTGCCTAATGCAGGGGGTCACCGCTGGAGAAGAACCACCACTGTCCTCGATGT  
 GTCCCAAGCCTGGAGCGAATCCGTCCTCTTGGCTCTCCAGCCCTATCACAGGAATCATTCTGGGTTTCTGTCC  
 CTCTGAGGCTCACCAGGTGTAGTTGGCCTTGTCTTTGGGGGTATTAGCCCTTCTACTTTCTTTCTACCCACCC  
 TGTACCCTCTTCTGTGTGTCTCTGCTATCCCCCTTTCCTCCCAACCCCATGTGCATGAGCAAATGTGCAACAAA  
 ACCCTGGGACTTTGCAGTCAAATGAAGCTGA

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**FIGURE 523**

MSAPAQPPAEGTEGTAPGGGPPGPPPNMTSNRRLQQTQAQVEEVVDIIRVNVDKVLERDQKLSEDDRADALQAG  
ASQFESSAAKLKRKYWWKNCKMMIMLGAICAIIVVVIVRRD

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**FIGURE 524**

CACACCCTGACAAGCTGCCAGGCAGGTTCTCTTCTCTCACATACTGACCCACGGCTCCACCCTCTCTCCCCTGG  
AAAGGACACCA**ATG**AGCACTGAAAGCATGATCCGGGACGTGGAGCTGGCCGAGGAGGCGCTCCCCAAGAAGACAGG  
GGGGCCCCAGGGCTCCAGGCGGTGCTTGTTTCCTCAGCCTCTTCTCCTTCTGATCGTGGCAGGCGCCACCACGCT  
CTTCTGCCTGCTGCACTTTGGAGTGATCGGCCCCCAGAGGGAAGAGTCCCCCAGGGACCTCTCTCTAATCAGCCC  
TCTGGCCCCAGGCAGTCAGATCATCTTCTCGAACCCCGAGTGACAAGCCTGTAGCCCATGTTGTAGCAAACCCCTCA  
AGCTGAGGGGCAGCTCCAGTGGCTGAACCGCCGGGCCAATGCCCTCCTGGCCAATGGCGTGGAGCTGAGAGATAA  
CCAGCTGGTGGTGCCATCAGAGGGCCTGTACCTCATCTACTCCAGGTCCTCTTCAAGGGCCAAGGCTGCCCCCTC  
CACCCATGTGCTCCTCACCCACACCATCAGCCGCATCGCCGTCTCCTACCAGACCAAGGTCAACCTCCTCTCTGC  
CATCAAGAGCCCCTGCCAGAGGGAGACCCAGAGGGGGCTGAGGCCAAGCCCTGGTATGAGCCCATCTATCTGGG  
AGGGGTCTTCCAGCTGGAGAAGGGTGACCGACTCAGCGCTGAGATCAATCGGCCCCGACTATCTCGACTTTGCCGA  
GTCTGGGCAGGTCTACTTTGGGATCATTGCCCTG**TGAG**GAGGACGAACATCCAACCTTCCCAAACGCCTCCCCTG  
CCCCAATCCCTTTATTACCCCTCCTTCAGACACCCTCAACCTCTTCTGGCTCAAAAAGAGAATTGGGGGCTTAG  
GGTCGGAACCCAAGCTTAGAACTTTAAGCAACAAGACCACCACTTCGAAACCTGGGATTAGGAATGTGTGGCCT  
GCACAGTGAAGTGCTGGCAACCACTAAGAATTCAAACCTGGGGCCTCCAGAACTCACTGGGGCCTACAGCTTTGAT  
CCCTGACATCTGGAATCTGGAGACCAGGGAGCCTTTGGTTCTGGCCAGAATGCTGCAGGACTTGAGAAGACCTCA  
CCTAGAAATTGACACAAGTGGACCTTAGGCCTTCCTCTCTCCAGATGTTTCCAGACTTCCTTGAGACACGGAGCC  
CAGCCCTCCCCATGGAGCCAGCTCCCTCTATTTATGTTTGCACCTGTGATTATTTATTATTTATTTATTTAT  
TTATTTACAGATGAATGTATTTATTTGGGAGACCGGGGTATCCTGGGGACCCAATGTAGGAGCTGCCTTGGCTC  
AGACATGTTTTCCGTGAAAACGGAGGCTGAACAATAGGCTGTTCCCATGTAGCCCCCTGGCCTCTGTGCCTTCTT  
TTGATTATGTTTTTTAAATATTATCTGATTAAGTTGTCTAAACAATGCTGATTTGGTGACCAACTGTCACTCAT  
TGCTGAGGCCTCTGCTCCCCAGGGAGTTGTGTCTGTAATCGGCCTACTATTAGTGCGAGAAATAAAGGTTGCT  
TAGGAAAGAA

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**FIGURE 525**

MSTESMIRDVELAEEALPKKTGGPQGSRRCLFLSLFSFLIVAGATTLCLLHFGVIGPQREESPRDLSLISPLAQ  
AVRSSSRTPSDKPVAVHVVANPQAEGQLQWLNRRANALLANGVELRDNQLVVPSEGLYLIYSQVLFKGQGPCSTHV  
LLTHTISRIAVSYQTKVNLLSAIKSPCQRETPEGAEAKPWYEP IYLGGVFQLEKGDRLSAEINRPDYLDFAESGQ  
VYFGIIAL



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**FIGURE 526A**

CATGGCGGCGACTGCGGCAAAGCGAGAGCCTCGGAGACGCCGCTGCCGCCAGCACAGCCGGAGATCTGAGCCGAC  
ACTGGGGGCGAGTCCGCGAGCCCCGCACTCTCTCGATGAGTCGGAGAAGTCCCGTTGTATCAGAGTAAGATGGACG  
GTAGCTTTGATTGTGATTGTGGTGAGCTGGAGCCACCTGATCACTAACAAAAGACATCTTCTGTTAACCAACAGC  
CGCCAGGCTTCCCTGTTGAAATAAATATATAGCAACAAAGGAAAAAAGAAGCAAAACGGAAATAGTGCTTACCAG  
CACCTTAGAATGATGCTGCTCAGGACCAGTCCAACACTGAATGTATCTGCACTGTGAGGAGAATGTTTCATAGAAG  
CCTGTTGTGTGCATATTTATTCACTTTTTTGTTAAATGTTAAATCGTTTAGCACGGTAATCTGAGTGACAGTATG  
TCATTTCAATCCGTTTGAGTTTCTTGTTTTCGTTAAATGTCTGCAGAGTTGCTGCCCTTTCTTGAAGTATGAGT  
ACTGCAATCTTTTAAATCTCAATATGAATAGAGCTTTTTGAGCTTTAAATCTAAGGGGAAGTTCGACAGGCCTGT  
TTGGCATATGCAATGAACATCAAGAAACCATCTTGCTGTGGAAGCATAATTATTTTTCTTCTCCCTTTTTGAAAG  
ATCTTTCCCTTTGATGCCAGTTTTCTTCTTGTTTACACAAGTTCAATTTGAAAGGAAAAGGCAATAGTAAGGGT  
TTCAAAATGGCAGAGAAATTTGAAAGTCTCATGAACATTCATGGTTTTGATCTGGGTTCTAGGTATATGGACTTA  
AAACCATTTGGGTTGTGGAGGCAATGGCTTGGTTTTTCTGCTGTAGACAATGACTGTGACAAAAGAGTAGCCATC  
AAGAAAATTGTCCTTACTGATCCCCAGAGTGTCAAACATGCTCTACGTGAAATCAAATTATTAGAAGACTTGAC  
CATGATAACATTTGTGAAAGTGTTGAGATTCTTGGTCCCAGTGGGAAGCCAATTAACAGACGATGTGGGCTCTCTT  
ACGGAAGTGAACAGTGTTTACATTGTTTCAGGAGTACATGGAGACAGACTTGGCTAATGTGCTGGAGCAGGGCCCT  
TTACTGGAAGAGCATGCCAGGCTTTTCATGTATCAGCTGCTACGGGGGCTCAAGTATATTCACCTCTGCAAATGTA  
CTGCACAGAGATCTCAAACCAGCTAATCTTTTCATTAATACGGAAGACTTGGTGCTGAAGATAGGTGACTTTGGT  
CTTGACCGGATCATGGATCCTCATTATTTCCATAAGGGTCATCTTTCTGAAGGATTGGTTACTAAATGGTACAGA  
TCTCCACGTCCTTTACTTTCTCCTAATAATTATACTAAAGCCATTGACATGTGGGCTGCAGGCTGCATCTTTGCT  
GAAATGCTGACTGGTAAAACCTTTTTGTCAGGTGCACATGAACTTGAACAGATGCAGCTGATTTTAGAATCTATT  
CCTGTTGTACATGAGGAAGATCGTCAGGAGCTTCTCAGCGTAATTCAGTTTACATTAGAAATGACATGACTGAG  
CCACACAAACCTTTAACTCAGCTGCTTCCAGGAATTAGTCGAGAAGCACTGGATTTCCCTGGAACAAATTTTGACA  
TTTAGCCCCATGGATCGGTTAACAGCAGAAGAAGCACTCTCCCATCCTTACATGAGCATATATTCTTTTCCAATG  
GATGAGCCAATTTCAAGCCATCCTTTTCATATTGAAGATGAAGTTGATGATATTTTGCTTATGGATGAAACTCAC  
AGTCACATTTATACTGGGAAAGGTATCATGATTGTCAGTTTTCAGAGCATGATTGGCCTGTACATAACAACCTT  
GATATTGATGAAGTTCAGCTTGATCCAAGAGCTCTGTCCGATGTCAGTATGAAGAAGAAGTACAAGTTGATCCC  
CGAAAATATTTGGATGGAGATCGGGAAGATATCTGGAGGATCCTGCTTTTGATACCAATTACTCTACTGAGCCT  
TGTTGGCAATACTCAGATCATCATGAAAACAAATATTGTGATCTGGAGTGTAGCCATACTTGTAACACAAAACG  
AGGTATCATCATATTTAGATAACTTAGTTTGGAGAGAGAGTGAAGTTAACCATTAATGAACCCAAGCTTATT  
ATAGATCTTTCCAATTGGAAAGAACAAGCAAGAAAAATCTGATAAGAAAGGCAAATCAAATGTGAAAGGAAT  
GGATTGGTTAAAGCCAGATAGCGCTAGAGGAAGCATCACAGCAACTGGCTGGAAAAGAAAGGGAAGAAATCAG  
GGATTTGATTTTGATTCTTTATTGTCAGGAACCTATTAGCTTAGTTCCAGCATGAGCCTACTGATGTTGTTGAT  
AAATTAATGACTTGAATAGCTCAGTGTCCTCAACTAGAAATGAAAAGTTTGATATCAAAGTCAGTAAGCCAAGAA  
AAACAGGAAAAAGGAATGGCAAATCTGGCTCAATTAGAAAGCCTTGTAACAGTCTTCTTGGGACAGCCAGTTTGTG  
AGTGGTGGGGAGGACTGTTTTTTCATAAATCAGTTTTGTGAGGTAAGGAAGGATGAACAAGTTGAGAAGGAAAAC  
ACTTACACTAGTTACTTGGACAAGTTCTTTAGCAGGAAAAGAAGTACTGAAATGCTAGAACTGAGCCAGTAGAG  
GATGGGAAGCTTGGGGAGAGAGGACATGAGGAAGGATTTCTGAACAACAGTGGGGAGTTCTCTTTTAAACAAGCAG  
CTCGAGTCCATAGGCATCCACAGTTTCACAGTCCAGTTGGGTCACCACTTAAGTCAATACAGGCCACATTAACA  
CCTTCTGCTATGAAATCTTCCCTCAAATTCCTCATCAAACATACAGCAGCATTCTGAAACATCTGAACATAAAC  
ACTCAGCAGACATTTATCTTTGTATTCTTCATGAAATGTGTTTTGTCTTTTTTTTATTACTAGTGTTTAAGTCATT  
TTTTACTTGAATCAGATGGTGTCAATTTAGTAAGGATTTTATGAGTTCTTGTTTTTTTAAATCCAGACTTCTTTT  
TCTACATGTGAGATAGTTTTCAATTTAACTGGCATGTCAATTTGCACACAAAAATAAAGACTAGAGCAAAATAATG  
CAACGCAGGAGGAGAAAAGAAATGCTAAGACAAGAACATTCTCTCATAGAACATTGATCTGTTTTTACAGGAAA  
CAAACCTTGCCTTGAAATTTACACAGTGAGACTGTACATAATTGCATGAAAATAGCTATTTTTTTTCTTAAGACAT  
TTTTTCATTCATGAATATTTTCAAGTTTTTCTACTGTACACATTTCTTAAACACATGATACCAGCAGCAACTGA  
AAATGAATGCCGAATTTGGTACACATGTGTTATCTACCTCAAGGTAACAAGAGTATGTGGCAAAACATATACCAC  
CCATAGTGCTTCACAAAATGCACTTCTATTTAGCCAGCGTTTATTGTAGTAACTATTCTTAATAAACTCACTC  
ACTGTTTATAAATGTTCTGGTATGCATTCTTTATAGTGAAGTGTTAATACATCACATCTTATTTATTTTAGCAAA

**FIGURE 526B**

TCAGTATATTTTCTGTATTTAATTATAAAAAATTAACCTTAGTTTTTAAAATTTATTTGCAAATATACTTTTTCCA  
TTTGGCACTATGGTTTGTTCCTACCTAGCTGCATCTATAATGTCAGCTTATCCTAAGGCTGTCCACGTACTTAA  
TTTACTTAAGTGTTTCAATTTAAGTAACGTGCTCACTGTGTATAGGAATTTGTATTTTGGAGGTGCTTGATCTATC  
TACAAAGAAAAATTAATTAGGAATTACTTTATTATAAAATGCTCCTAGAAGTCTTAATTGTGTTTATTTTTTAAA  
AAAACAAATGTTAGACTTGTGTGCATGGAAGTAATTAAGGTACATCATTATTGTAGTTTGAAAGTTGTACATGAT  
AAGACATTTTGTCTTTTACTGTATGTTTTTACTGAATGATCTATTCCCCATCCCAAGGCAAGCATGAATAAAATTA  
GGTTAAACGTAGCATGTGGCATCGCAGTCTCTTAGAATTTGTTTCATCTATTTTATTTTATTGAATACTGTCTGT  
ATCTTTGGTTATCCTGTTTGAAGAAAAAGGACAAATAAAACATGGCCAGCAAATACAAAAAAAAAAAAA

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**FIGURE 527**

MAEKFESLMNIHGFDLGSRYMDLKPLGCGGNGLVFSAVDNDCKRVAIKKIVLTD PQSVKHALREIKIIRRLDHD  
NIVKVFEILGPSGSQLTDDVGSLTELSVYIVQEYMETDLANVLEQGPLEEHARLFMYQLLRGLKYIHSANVLH  
RDLKPANLFINTEDLVKIGDFGLARIMDPHYSHKGHLSEGLVTKWYRSPRLLSPNNYTKAIDMWAAGCIFAEM  
LTGKTLFAGAHELEQMQLILESIPVVHEEDRQELLSVIPVYIRNDMTEPHKPLTQLLPGISREALDFLEQILTF  
PMDRLTAEALSHPYMSIYSFPMDEPISSHPFHIEDEVDDILLMDETHSHIYNWERYHDCQFSEHDWPVHNNFDI  
DEVQLDPRALSDVTDEEEVQVDPKYLGDREKYLEDPAFDTNYSTEPQWQYSDHHENKYCDLECSHTCNYKTRS  
SSYLDNLVWRESEVNHYEYEPKLIIDLSNWKEQSKEKSDKKGKSKCERNGLVKAQIALEEASQQLAGKEREKNQGF  
DFDSFIAGTIQLSSQHEPTDVVDKLNLDLNSSVSQLELKSLSKSVSQEKQEKGMANLAQLEALYQSSWDSQFVSG  
GEDCFFINQFCEVRKDEQVEKENTYTSYLDKFFSRKEDTEMLETEPVEDGKLGERGHEEGFLNNSGEFLFNKQLE  
SIGIPQFHSPVGSPLKSIQATLTSPAMKSSPQIPHQTYSSILKHLN

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**FIGURE 528**

GTAAAGCTAGACCGATCTCCGGGGAGCCCCGGAGTAGGCGAGCGGCGGCCAGCTAGTTGAGCGCACCCCCCG  
CCCCCCCCAGCGGCGCCGCGGGCGGGCGGCGTCCAGGCGGC**ATG**GAGAAGGACGGCCTGTGCCGCGCTGACCAGCA  
GTACGAATGCGTGCGGAGATCGGGGAGGGCGCCTATGGGAAGGTGTTCAAGGCCCGCGACTTGAAGAACGGAGG  
CCGTTTTCTGTCGTTGAAGCGCGTGCGGGTGCAGACCGGCGAGGAGGGCATGCCGCTCTCCACCATCCGCGAGGT  
GGCGGTGCTGAGGCACCTGGAGACCTTCGAGCACCCCAACGTGGTCAGGTTGTTTGATGTGTGCACAGTGTACG  
AACAGACAGAGAAACCAACTAAGTGTGTTGAACATGTCGATCAAGACTTGACCACTTACTTGGATAAAGT  
TCCAGAGCCTGGAGTGCCCACTGAAACCATAAAGGATATGATGTTTCAGCTTCTCCGAGGTCTGGACTTTCTTCA  
TTCACACCGAGTAGTGCATCGCGATCTAAACCACAGAACATTCTGGTGACCAGCAGCGGACAAATAAACTCGC  
TGACTTCGGCCTTGCCCGCATCTATAGTTTCCAGATGGCTCTAACCTCAGTGGTCGTCACGCTGTGGTACAGAGC  
ACCCGAAGTCTTGCTCCAGTCCAGCTACGCCACCCCGTGGATCTCTGGAGTGTGGCTGCATATTTGCAGAAAT  
GTTTCGTAGAAAGCCTCTTTTTCTGTTGAAGTTTCTAGATGTTGATCAACTAGGAAAAATCTTGGACGTGATTGGACT  
CCCAGGAGAAGAAGACTGGCCTAGAGATGTTGCCCTTCCCAGGCAGGCTTTTCATTCAAATCTGCCCCAACCAAT  
TGAGAAGTTTGTAAACAGATATCGATGAAGTAGGCAAAGACCTACTTCTGAAGTGTGACATTTAACCCAGCCAA  
AAGAATATCTGCCTACAGTGCCCTGTCTCACCCATACTTCCAGGACCTGGAAAGGTGCAAAGAAAACCTGGATT  
CCACCTGCCGCCAGCCAGAACACCTCGGAGCTGAATACAGCC**TGAG**GCCTCAGCAGCCGCCTTAAGCTGATCCT  
GCGGAGAACACCCTTGGTGGCTTATGGGTCCCCCTCAGCAAGCCCTACAGAGCTGTGGAGGATTGCTATCTGGAG  
GCCTTCCAGCTGCTGTCTTCTGGACAGGCTCTGCTTCTCCAAGGAAA

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**FIGURE 529**

MEKDGLCRADQQYECVAEIGEGAYGKVFKARDLKNNGRFVALKRVRVQTGEEGMPLSTIREVAVLRHLETFEHPN  
VVRLFDVCTVSRDRETKLTLVFEHVDQDLTTYLDKVPEPGVPTETIKDMMFQLLRGLDFLHSHRVVHRDLKPQN  
ILVTSSGQIKLADFGGLARIYSFQMALTSVVVTLWYRAPEVLLQSSYATPVDLWSVGCIFAEMFRRKPLFRGSSDV  
DQLGKILDVIGLPGEEDWPRDVALPRQAFHSKSAQPIEKFVTDIDELGKDLLLKCLTFNPAKRISAYSALSHPYF  
QDLERCKENLDShLPPSQNTSELNTA

**FIGURE 530**

GTCTGCCCTCTCTGCTCGCCCTGCCTAGCTTGAGGATCTGTACCCCCAGCC**ATG**AGGATTATCGCCCTCCTCGCT  
GCTATTCTCTTGGTAGCCCTCCAGGTCCGGGCAGGCCCACTCCAGGCAAGAGGTGATGAGGCTCCAGGCCAGGAG  
CAGCGTGGGCCAGAAGACCAGGACATATCTATTTCTTTGCATGGGATAAAAGCTCTGCTCTTCAGGTTTCAGGC  
TCAACAAGGGGCATGGTCTGCTCTTGAGATTAGTATTCTGCCGGCGAACAGAACTTCGTGTTGGGAACTGCCTC  
ATTGGTGGTGTGAGTTTCACATACTGCTGCACGCGTGTGAT**TAA**CGTTCTGCTGTCCAAGAGAATGTCATGCTG  
GGAACGCCATCATCGGTGGTGTAGCTTCACATGCTTCTGCAGCTGAGCTTGCAGAATAGAGAAAAATGAGCTCA  
TAATTTGCTTTGAGAGCTACAGGAAATGGTTGTTTCTCCTATACTTTGTCCTTAACATCTTTCTTGATCCTAAAT  
ATATATCTCGTAACAAG

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**FIGURE 531**

MRIIALLAAILLVALQVRAGPLQARGDEAPGQEQRPEDQDISISFAWDKSSALQVSGSTRGMVCSCRLVFCRRT  
ELRVGNCLIGGVSFYCCTRVD

**FIGURE 532**

CAGTCTCA**ATG**GGGGCACTGGGGCTGGAGGGCAGGGGTGGGAGGCTCCAGGGGAGGGGTTCCTCCTGCTAGCTG  
TGGCAGGAGCCACTTCTCTGGTGACCTTGTTGCTGGCGGTGCCTATCACTGTCCTGGCTGTGCTGGCCTTAGTGC  
CCCAGGATCAGGGAGGACTGGTAACGGAGACGGCCGACCCCGGGGCACAGGCCAGCAAGGACTGGGGTTTCAGA  
AGCTGCCAGAGGAGGAGCCAGAAACAGATCTCAGCCCCGGGCTCCCAGCTGCCCACCTCATAGGCGCTCCGCTGA  
AGGGGCAGGGGCTAGGCTGGGAGACGACGAAGGAACAGGCGTTTCTGACGAGCGGGACGCAGTTCTCGGACGCCG  
AGGGGCTGGCGCTCCCCGAGGACGGCCTCTATTACCTCTACTGTCTCGTCCGCTACCGGGGCCGGGCGCCCCCTG  
GCGGCGGGGACCCCCAGGGCCGCTCGGTACGCTGCGCAGCTCTCTGTACCGGGCGGGGGCGCCTACGGGCCGG  
GCACTCCCGAGCTGCTGCTCGAGGGCGCCGAGACGGTGACTCCAGTGCTGGACCCGGCCAGGAGACAAGGGTACG  
GGCCTCTCTGGTACACGAGCGTGGGGTTCGGCGGCCTGGTGCAGCTCCGGAGGGGCGAGAGGGTGTACGTCAACA  
TCAGTCACCCGATATGGTGGACTTCGCGAGAGGGAAGACCTTCTTTGGGGCCGTGATGGTGGGGTGAGGGAATA  
TGAGTGCGTGGTGCGAGTGGTGAATATTGGGGGCCGACGCCCAGGACCCCATGGCAGTGGGAAAAATGTAGG  
AGACTGTTTGAAATTGATTTTGAACCTGATGAAAATAAAGAATGGAAAGCTTCAGTGCTGCCGATAAA



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**FIGURE 533**

MGALGLEGRGGRLQGRGSLLLAVAGATSLVTLLAVPITVLAVLALVPQDQGGLGFRSCQRRSQKQISAPGSQLP  
TS

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**FIGURE 534**

CCCAGAGCAGCGCTCGCCACCTCCCCCGGCCTGGGCAGCGCTCGCCGGGGAGTCCAGCGGTGTCCTGTGGAGC  
TGCCGCC**ATG**CCCCGCGGCGGGCGCGGGCTGCCGGACCCTCGGTCTCCCGGCGCTGCTACTGCTGCTGCTGCT  
CCGGCCCGCGGCGACGCGGGGCATCACGTGCCCTCCCCCATGTCCGTGGAACACGCAGACATCTGGGTCAAGAG  
CTACAGCTTGTACTCCAGGGAGCGGTACATTTGTAACCTGTGGTTTCAAGCGTAAAGCCGGCACGTCCAGCCTGAC  
GGAGTGCCTGTTGAACAAGGCCACGAATGTCGCCCCTGGACAACCCCCAGTCTCAAATGCATTAGAGACCCTGC  
CCTGGTTTACCAAAGGCCAGCGCCACCCTCCACAGTAACGACGGCAGGGGTGACCCACAGCCAGAGAGCCTCTC  
CCCTTCTGGAAGAGCCCGCAGCTTCATCTCCAGCTCAAACAACACAGCGGCCACAACAGCAGCTATTGTCCC  
GGGCTCCCAGCTGATGCCTTCAAAATCACCTTCCACAGGAACACAGAGATAAGCAGTCATGAGTCCTCCACGG  
CACCCCTCTCAGACAACAGCCAAGAACTGGGAACTCACAGCATCCGCCCTCCCACCAGCCGCCAGGTGTGTATCC  
ACAGGGCCACAGCGACACCACTGTGGCTATCTCCACGTCCACTGTCCTGCTGTGTGGGCTGAGCGCTGTGTCTCT  
CCTGGCATGCTACCTCAAGTCAAGGCAAACCTCCCCGCTGGCCAGCGTTGAAATGGAAGCCATGGAGGCTCTGCC  
GGTGA CT TGGGGGACCAGCAGCAGAGATGAAGACTTGGA AACTGCTCTCACCACCTA**TGA**AACTCGGGGAAACC  
AGCCAGCTAAGTCCGGAGTGAAGGAGCCTCTCTGCTTTAGCTAAAGACGACTGAGAAGAGGTGCAAGGAAGCGG  
GCTCCAGGAGCAAGCTCACCAGGCCTCTCAGAAGTCCAGCAGGATCTCACGGACTGCCGGGTGGCGCCTCCTG  
CGCGAGGGAGCAGGTTCTCCGCATTCCCATGGGCACCACCTGCCTGCCTGTCGTGCCTTGGACCCAGGGCCCAGC  
TTCCCAGGAGAGACCAAAGGCTTCTGAGCAGGATTTTTATTTTATTACAGTGTGAGCTGCCTGGAATACATGTGG  
TAATGAAATAAAAAACCTGCCCCGAATCTTCCGTCCCTCATCTAACTTGCAGTTTACAGAGAAAAGTGACATAC  
CCAAAGCTCTCTGTCAATTACAAGGCTTCTCCTGGCGTGGGAGACGTCTACAGGGAAGACACCAGCGTTTGGGCT  
TCTAACCACCCTGTCTCCAGCTGCTCTGCACACATGGACAGGGACCTGGGAAAGGTGGGAGAGATGCTGAGCCCA  
GCGAATCCTCTCCATTGAAGGATTCAGGAAGAAGAAAAC TCAACTCAGTGCCATTTTACGAATATATGCGTTTAT  
ATTTATACTTCCTTGTCTATTATATCTATACATTATATATTATTTGTATTTTGACATTGTACCTTGATAAACAA  
AATAAAACATCTATTTTCAATATTTTAAAATGCA

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**FIGURE 535**

MAPRRARGCRTLGLPALLLLLLLRPPATRGITCPPPMSVEHADIWVKSYSLYSRERYICNSGFKRKAGTSSLTEC  
VLNKATNVAHWTTPSLKCIRDPALVHQRPAAPPSTVTTAGVTPQPESLSPSGKEPAASSPSSNNTAATTAAIVPGS  
QLMPSPKSPSTGTTEISSHESHGTPSQTTAKNWELTASASHQPPGVYPQGHSDTTVAISTSTVLLCGLSAVSLLA  
CYLKSRTPTPLASVEMEAMEALPVTWGTSSRDEDLENCSHHL

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**FIGURE 536**

CTGAAGCTTGCATGCCTGCAGGTCGACCCACGCGTCCGCGGACGCGTGGGCGGACGCGTGGGTTTTTCCTTTCTT  
CCAGAAGGAGATTTAACCATAGTAGAAAGAATGGAGAACTATTAAGTGCCTTCCTTCTGTGGGCTGTGATTTTCA  
GAGGGGAATGCTAAGAGGTGATTTTCAATGTTGGGACTCAAAGGTGAAGACACTGAAGGACAGAAATTTTGGCAG  
AGGAAAGATCTTCTTCGGTCACCATACTTGAGTTAGCTCTAGGGAAGTGGAGGTTTCCATTGGAATTCTATAGC  
TTCTTCCAGGTCATAGTGTCTGCCCCCACCTTCCAGTATCTCCTGATATGCAGCATGAATGAAAATGGCAAGTT  
TCCTGGCCTTCCTTCTGTCTCAACTTTTCGTGTCTGCCTCCTTTTGTCTTTCAGCTGCTCATGCCTCACTCAGCTCAGT  
TTTCTGTGCTTGGACCCTCTGGGCCCATCCTGGCCATGGTGGGTGAAGACGCTGATCTGCCCTGTCACCTGTTCC  
CGACCATGAGTGCAGAGACCATGGAGCTGAAGTGGGTGAGTTCCAGCCTAAGGCAGGTGGTGAACGTGTATGCAG  
ATGGAAGGAAGTGAAGACAGGCAGAGTGCACCGTATCGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTG  
CAGGGAAGGCTGCTCTCCGAATACACAACGTACAGCCTCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATG  
GTGACTTCTATGAAAAAGCCCTGGTGGAGCTGAAGGTTGCAGCACTGGGTTCTGATCTTCAGTTGATGTGAAGG  
GTTACAAGGATGGAGGGATCCATCTGGAGTGCAGGTCCACTGGCTGGTACCCCCAACCCCAATAACAGTGGAGCA  
ACAACAAGGGAGAGAACATCCCGACTGTGGAAGCACCTGTGGTTGCAGACGGAGTGGGCCCTGTATGCAGTAGCAG  
CATCTGTGATCATGAGAGGCAGCTCTGGGGAGGGTGTATCCTGTACCATCAGAAGTTCCCTCCTCGGCCTGGAAA  
AGACAGCCAGCATTTCCATCGCAGACCCCTTCTTCAGGAGCGCCCAGAGGTGGATCGCCGCCCTGGCACGGACCC  
TGCCTGTCTTGTCTGCTTCTTGGGGGAGCCGGTTACTTCTGTGGCAACAGCAGGAGGAAAAAAGACTCAGT  
TCAGAAAGAAAAAGAGAGAGCAAGAGTTGAGAGAAATGGCATGGAGCACAAATGAAGCAAGAACAAAGCACAAAGAG  
TGAAGCTCCTGGAGGAACTCAGATGGAGAAGTATCCAGTATGCATCTCGGGGAGAGAGACATTCAGCCTATAATG  
AATGGAAAAAGGCCCTCTTCAAGCCTGCGGATGTGATTCTGGATCCAAAAACAGCAAACCCCATCCTCCTTGT  
CTGAGGACCAGAGGAGTGTGCAGCGTGCCAAGGAGCCCCAGGATCTGCCAGACAACCCTGAGAGATTTAATTGGC  
ATTATTGTGTTCTCGGCTGTGAGAGCTTCATATCAGGGAGACATTACTGGGAGGTGGAGGTAGGGGACAGGAAAG  
AGTGGCATATAGGGGTGTGCAGTAAGAATGTGCAGAGAAAAGGCTGGGTCAAATGACACCTGAGAATGGATTCT  
GGACTATGGGGCTGACTGATGGGAATAAGTATCGGACTCTAACTGAGCCCAGAACCAACCTGAAACTTCCTAAGC  
CCCCTAAGAAAGTGGGGGTCTTCTGGACTATGAGACTGGAGATATCTCATTCTACAATGCTGTGGATGGATCGC  
ATATTCTACTTTTCTGGACGCTCTCTCTGAGGCTCTATATCCTGTTTTTCAGAAATTTGACCTTGGAGCCCCA  
CGGCCCTGAGTATTTGTCCAGCGTGAAGAAGAAGAGAGTTTCTCCAATTCTGACCGAGTGTGATCATTCCCT  
AGAGACACCAGTAACCCCGGGCTTAGCTAACGAAAGTGGGGAGCCTCAGGCTGAAGTAATTTTCTCTGCTTCTC  
CCTGCCCAGCTCAGAGCTGAGGGCTCCCCCTCCACAGCAACCAATCACACCATAAAGCTACAAGCACGCACTG  
AAGCACTTTACTGATACTCATTCAATTATTTCATATGACAGTTGTTTGGAGTTTGGTACCATCTTATTTTCCCTTA  
TACAGATAAGGAACTGGGGTGCAGAAAAGTGAATTGACTACAAAGTAGACATGACTAGTTAACAACACAGCTGG  
GATCTAAACAGCAATAACTAATTAATGGAGAAGTAAATGCTCTGAGTGTGTTATGAGCTTTGGTGGAT  
GTCACTCCTTTAATCCTCGCAACACCCTGTGCGGTAGTCTCATTAGCAAGTATGGAAGTTGAGGCAGGGCAACA  
TTAAGCAACTTACATAACTCATGCAGTAATTTCTGCAGTTGGGAGATGTTTTCAGCTTCAGTCCCCGGCCCTATGGC  
CGTTCTTTTCCACCCTGTTTCTTCCCCCATAGGAAGAACCCACCTGTAGCCCTGAGGTTCTTTTCCAGGATGGC  
TCCAGGATAAGGATCACTGTAGGTGGTTGTGGAGTTGACACCCCTGTTGACTCCTTCCAGCTGATTGTCAGAGC  
CTTAGACCCAGCACGCCTTGGATTAGCTTTGCAGAGTGTCTTGGTTGAGAGAATAACCTCACCGTACCCACATGA  
CACGTGATTTGGAAAGAGACTAGAGGCCACACTTGATAAATCATGGGGAACAGATGTGTTCCACCCAACAAATGT  
GATAAGTGATCATGCAGCCAGAGCCAGCCTTCTTCAATCAAGGTTTCCAGGCAGAGCAAATACCTAGAGATTT  
TCTGTGATATAGGAAATTTGGATGAAGGGAGCTAGAAGAAATACAGGGATTTTTTTTTTTTTTAAAGATGGAGTC  
TTACTCTGTTGCTAGGCTGGAGTGCAGTGGTGCATCTCAGCTCCCTGCAACCTCCACCTCCTGGGTTCAAACAA  
TTCTCCTGCCTCAGCCTCCCGAGTACTGGGAATATAGGTGCACGCCACCACACCAACAAATTTTGTACTTTTA  
GTACAGATGAGGGTTCACTATGTTGGCCAGGATGGTCTCGATCTCTTGACCTCATGATCCACCCACCTCGGTCTC  
CCAAAGTGCTGGGATTACAGGCTTGAGCCACCGGTGACCGGCTTACAGGGATATTTTTAATCCCGTTATGGACT  
CTGTCTCCAGGAGAGGGGTCTATCCACCCCTGCTCATTGGTGGATGTTAAACCAATATTCCTTTCAACTGCTGCC  
TGCTAGGGAAAACTACTCCTCATTATCATCATTATTATTGCTCTCCACTGTATCCCTCTACCTGGCATGTGCT  
TGTCAGGTTCTAGTTGTTCAATAAATTTGTTAATAATGCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AA

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**FIGURE 537**

MKMASFLAFLLLNFRVCLLLLQLLMPHSAQFSVLGPSGPILAMVGEDADLPCHLFPTMSAETMELKWVSSSLRQV  
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGFYEKALVELKVAALGSDL  
HVDVKGYKDGGIHLECRSTGWYPQPQIQWSNNKGENIPTVEAPVVADGVGLYAVAASVIMRGSSGEGVSTIRSS  
LLGLEKTASISIA DPFFRSAQRWIAALARTLPVLLLLLLGGAGYFLWQQQEEKKTQFRKKKREQELREMAWSTMKQ  
EQSTRVKLLEELRWRSIQYASRGERHSAYNEWKKALFKPADVILDPKTANPILLVSEDQRSVQRAKEPQDLDPNP  
ERFNWHYCVLGCEFSISGRHYWEVEVGDRKEWHIGVCSKNVQRKGWVKMTPENGFWTMGLTDGNKYRTLTEPRTN  
LKLPPKPKKVGVF LDYETGDISFYNAVDGSHIHTFLDVSFSEALYPVFRILITLEPTALSICPA

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**FIGURE 538**

GGCACGAGGGGAGTGGAAGTTCTCCGGCAGCCCTGAGATCTCAAGAGTGACATTTGTGAGACCAGCTAATTTGA  
TTAAAAATTCTCTTGGAATCAGCTTTGCTAGTATCATACCTGTGCCAGATTTTCATC**ATG**GGAAACAGCTGTTACAA  
CATAGTAGCCACTCTGTTGCTGGTCCTCAACTTTGAGAGGACAAGATCATTGCAGGATCCTTGTAGTAAGTCCCC  
AGCTGGTACATTCTGTGATAATAACAGGAATCAGATTTGCAGTCCCTGTCTCCAAATAGTTTCTCCAGCGCAGG  
TGGACAAAGGACCTGTGACATATGCAGGCAGTGTAAGGTGTTTTTCAGGACCAGGAAGGAGTGTTTCTCCACCAG  
CAATGCAGAGTGTGACTGCACTCCAGGGTTTTCACTGCCTGGGGGCAGGATGCAGCATGTGTGAACAGGATTGTAA  
ACAAGGTCAAGAACTGACAAAAAAGGTTGTAAAGACTGTTGCTTTGGGACATTTAACGATCAGAAACGTGGCAT  
CTGTGACCCCTGGACAAACTGTTCTTTGGATGGAAAGTCTGTGCTTGTGAATGGGACGAAGGAGAGGGACGTGGT  
CTGTGGACCATCTCCAGCCGACCTCTCTCCGGGAGCATCCTCTGTGACCCCGCCTGCCCCCTGCGAGAGAGCCAGG  
ACACTCTCCGCAGATCATCTCCTTCTTTCTTGCCTGACGTGCGACTGCGTTGCTCTTCTGCTGTTCTTCTCTCAC  
GCTCCGTTTCTCTGTTGTTAAACGGGGCAGAAAGAACTCCTGTATATATTCAAACAACCATTTATGAGACCAGT  
ACAAACTACTCAAGAGGAAGATGGCTGTAGCTGCCGATTTCCAGAAGAAGAAGGAGGATGTGAAGT**GTGAAA**  
TGGAAGTCAATAGGGCTGTTGGGACTTTCTTGAAAAGAAGCAAGGAAATATGAGTCATCCGCTATCACAGCTTTC  
AAAAGCAAGAACACCATCCTACATAATACCCAGGATTCCCCCAACACACGTTCTTTTCTAAATGCCAATGAGTTG  
GCCTTTAAAAATGCACCACTTTTTTTTTTTTTTTTGGACAGGGTCTCACTCTGTCACCCAGGCTGGAGTGCAGTGGC  
ACCACCATGGCTCTCTGCAGCCTTGACCTCTGGGAGCTCAAGTGATCCTCCTGCCTCAGTCTCCTGAGTAGCTGG  
AACTACAAGGAAGGGCCACCACACCTGACTAACTTTTTTGTTTTTTGTGTTGGTAAAGATGGCATTTCACCATGTT  
GTACAGGCTGGTCTCAAACCTCCTAGGTTCACTTTGGCCTCCCAAAGTGCTGGGATTACAGACATGAAGTGCCAGG  
CCCGGCCAAAATAATGCACCACTTTTAACAGAACAGACAGATGAGGACAGAGCTGGTGATAAAAAAAAAAAAAAA  
AAAGCATTTTCTAGATACCACTTAACAGGTTTGAGCTAGTTTTTTTGAAATCCAAAGAAAATTATAGTTTAAATT  
CAATTACATAGTCCAGTGGTCCAACATAATTATAATCAAAATCAATGCAGGTTTGTTTTTTGGTGCTAATATGA  
CATATGACAATAAGCCACGAGGTGCAGTAAGTACCCGACTAAAGTTTCCGTGGGTCTGTGCATGTAACACGACAT  
GCTCCACCGTCAGGGGGGAGTATGAGCAGAGTGCCTGAGTTTAGGGTCAAGGACAAAAACCTCAGGCCTGGAGG  
AAGTTTTGAAAAGAGTTCAAGTGTCTGTATATCCTATGGTCTTCTCCATCCTCACACCTTCTGCCTTTGTCTCTGC  
TCCCTTTTAAGCCAGGTTACATTCTAAAAATTCTTAAGTTTAAACATAATATTTTATACCAAAGCCAATAAATGA  
ACTGCATATGAAA

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**FIGURE 539**

MGNSCYNIVATLLLVLNFERTRSIQDPCSNCPAGTFCDNNRNQICSPCPPNSFSSAGGQRTCDICRQCKGVFRT  
KECSSTSNAECDCTPGFHCIGAGCSMCEQDCKQGQELTKKGCKDCCFGTFNDQKRGICRPWTNCSLDGKSVLVN  
TKERDVVCGPSPADLSPGASSVTPPAPAREPGHSPQIIISFFLALTSTALLFLLFFLTLRFSVVKRGRKKLLYIFK  
QPFMRPVQTTQEEDGCSCRFPEEEEGGCEL

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**FIGURE 540A**

ACGGCTGCGAGAAGACGACAGAAGGGGAGAGGTGAATATTATTGAATGAAAATGGCTGACAGAAGTGGGAAGATT  
ATTCCAGGACAAGTGTATATTGAGGTGGAATATGATTATGAATATGAAGCAAAGGACAGAAAAGATTGTGATAAAA  
CAAGGGGAGAGGTACATCTTGTTGAAAAAGACCAATGATGACTGGTGGCAAGTCAAGCCAGATGAAAACCTCCAA  
GCGTTTTATGTGCCAGCCAGTATGTGAGGGAGGTCACGCGCAAAGCTCTCATGCCACCTGTTAAGCAGGTAGCT  
GGTCTGCCAAATAACTCCACGAAAAATAATGCAGAGTTTGCATCTTCAGAGATCAACAGAAAAATGTGAACAAATTG  
CCTGAGCTTTCAAGTTTCGAAAGCCATCGTCATCTGTTCAAGGAACAGGTCTTATTCTGTGATGCCAATCAGAAT  
TTTGGACCCAGTTATAATCAAGGTCAGACTGTCAACCTAAGCCTGGACCTGACCCATAATAACGGAAAGTTTAAAC  
AATGACTCACATTCTCCTAAAGTTTCCAGCCAGAATAGGACACGCTCATTGTTGTCATTTCCCGGTCCAGAGTTC  
TTGGATGTAGAGAAAACTAGCTTCTCCAGGAACAATCTTGTGATTCCGCAGGAGAAGGCTCTGAAAGAATACAT  
CAAGATTCTGAATCTGGTGATGAACCTTAGCAGCAGCTCCACTGAACAGATAAGGGCAACCACACCTCCAAATCAA  
GGAAGGCCAGATTCTCCTGTCTATGCTAACCTTCAAGAACTGAAAAATATCCAGTCTGCTCTTCCCCCACTTCTCT  
GGGAGCCCGGCAATTCAGATTAATGGAGAATGGGAAACTCATAAAGACAGCTCAGGGCGTTGCTATTACTATAAC  
AGAGGGACACAGGAAAGAACTTGGAAACCTCCTCGTTGGACCCGGGATGCAAGCATCAGCAAAGGAGATTTCCAA  
AATCCAGGGGATCAAGAGTGGCTCAAGCATGTTGATGATCAAGGTAGACAATATTACTACAGTGCAGACGGATCT  
CGGTCAGAATGGGAATTGCCAAAGTATAATGCTTCATCCAGCAGCAAAGAGAAAAATAATTTAAAGTAGGAGCCTG  
GACAGGCGGCTGCAAGAACCAATAGTATTAACAAAGTGGAGACATAGCACCATTGTATTGGACACTAATGATAAG  
GAATCTCCAACCTGCCTCAAAACCTGCTTTTCTGAAAATGAGTCTTCTCCCTCCTCACCAAAGCACCAAGATACA  
GATCAAGAGAAAATATGGATTATTAAATGTAACAAAAATTGCTGAAAATGGGAAAAAGGTTGAAAGAAGTGGTTG  
TCTTCTTGGGCGGTGTTGCAGGGTTCATCTTTACTTTTTACCAAACTCAAGGAAGTAGCACAAAGTTGGTTTGGC  
AGTAATCAGTCCAAACCAGAGTTCACAGTGGACCTCAAGGGGGCAACAATTGAGATGGCTTCAAAGGATAAAATCC  
AGCAAAAAGAATGTATTTGAGCTGAAAACCTCGTCAAGGAACAGAAGTCTAATTCAGTCTGACAATGACACTGTT  
ATTAATGATTGGTTTAAAGTTCTTAGTAGTACAATCAATAATCAGGCAGTAGAACTGATGAAGGAATTGAAGAG  
GAGATACCGGATTACCAGGAATAGAAAAGCATGATAAGAAAAGGAACAAAAGGATCCCAAAAAGCTTCGTTCC  
TTTAAAGTATCTAGCATAGATTCTTCAGAACAGAAAAAAACCAAGAAAACTTAAAGAAGTTTCTTACACGACGC  
CCCCTTTGCAAGCTGTTTCGTGAAAAGGTTATATTAAAGATCAGGTATTTGGATCCAATCTCGCTAATCTGTGT  
CAGAGAGAGAATGGCACAGTACCAAAGTTTGTGAAGTTATGTATTGAACATGTTGAAGAACATGGTTTGGATATT  
GATGGGATATACAGAGTAAGTGGCAACCTCGCAGTGATCCAGAACTAAGGTTTGCAGTCAATCATGATGAGAAA  
TTGGACTTGAATGACAGTAAATGGGAAGATATTCATGTCACTACTGGAGCCCTCAAATGTTTTTTTCGAGAATTA  
CCAGAACCTCTTTTTACATTTAATCATTTTTAATGATTTTTGTAAATGCAATTAAGCAAGAACCAAGACCGCGAGTC  
GCTGCTGTTAAGGACCTAATCAGACAGTTGCCAAAGCCAAACCAAGACACAATGCAGATTCTTTTCCGACATCTC  
AGAAGAGTTATAGAAAATGGAGAGAAAAATCGAATGACCTATCAGAGTATAGCAATTGTTTTTGGTCCCCTCTA  
TTAAACCAGAAAAAGAGACTGGTAATATAGCAGTTTCACTGTGTACCAGAATCAGATTGTAGAATTAATTCTT  
CTGGAAGTGAAGTCCATCTTCGGACGTTGATTCTTACTGAAGACAACCTGTGGAATAGAAGCTGGATTCCATCAG  
ATTTCAAATGTTTATACACAATGTATTTTTTTTTGGACCAAGCAGTGACTCTTTGATTTTGCATTTTTTTTT  
GAGGGATCAGAAGGGAAGGGGAGAGTCGAGATGTGTGTTAGGCCCTCATATTTGCTGCTTTGTTGCAAGTTGATA  
TAACTGCGTGTAATTATGAATTCATTTTATCCTGAATGTTTGCATTTCACTCTGAATTTTCAGTAAAAATCAAA  
ACTTAAATCTAACCAAGTCATATACACTGGATAATTTGGTAAGAAAACCTGTATTTTTTTTTCCCTGAAATTGGAT  
AATGTACTTTCTTCTCAAGATTTCATGACTTGATAGAACAATACTTTCAGTTATGTTGCAAAGGCTCTTGGGCATT  
TTAAACAAAATGAAGTATATCCATTTTGAACCTGTGTATTTCTTTTTCGGGGTTTCTGCATGCAGTGGCAGTCT  
TAAGTGCCAAAATTCATTATAACCCCAAAATAACCCCTTGATGAAGGCTTGCTGTCTTTTACTGTGTTACACAGC  
ATCCTTACTGGATATCTTAGTTGCTTGTTTGGGCAGCACACTAATATTACTTAAACACTGTGATATACTGGAGT  
TTTAGTTAGCGGAAGTCAGTTCAGGGCATTTTAGGGCTGTCTTGCTATACTGAATTGTAGCTAACAATCCTAATT  
ATATCTAGTACCATACTGAGTTATTGGTATGACCCTGTGGAAACACACATTATTTTATGTAATATAGGCTAAAG  
ACTTAATGTCTTTTAGCTTGTGTATATAATTGTGTTGTATAGTCTCAGAGTACATTCTAACCTACATTTCTAAT  
CATTGTTATTGGTAATCTTTTCTGTGAATATTAGGTTTCTCCAGAAATAGTCCGTTATTTGGGAAAGTTAACTG  
TGTGCACTTTTAGATATTAACTACATTTACAGGCAAACTCACTGTAATGAGAATGGTACTGGAAAAATACTGAATA  
GACTTGCTAAATGGCACATGCACTACAAGAGGAACCTTTTGGGTTATTTAATATGTACAGAAAACATTAGAAAAA  
ATTTATTACAGAATTCTAATTCAGTATGAATAGTGGAAACCCACCTGTAAATTAGATGGATGTTGGATGGAAAA



**FIGURE 540B**

TGACATTGCTAAATTTGAGAATTTCTTTTTACCTACTAATGTAGATTGCTTTGTATAATAAAACACAGGGTTTGG  
AAGGTTTTGTTACAGGGAGCATGGTCTGTTGAAGATTTTTAAAATGTATTTTCTAGATTAACTTCTGTACATGA  
AATGTCTAATAAAACTCTAAGAGGCTTAGAGATTTTCCATTGGAAATGTGCATTTTGGTTTCTAATTTTTTTGT  
TTTTTCATTTACTGGCATACTGTTATACCTCATTTTTTAAAATCAACTGAATCCAATATTTCTGTGGCAAATAA  
CACTTTCCTCATTTTATACCTTTTCTCCTCTCTTCCATGCCAACATTTCTCCACCCACAACGTACACTTTTTATT  
TCTCCATCAATATTTGAAAGCGAGTGATTTGTGACCAGGATTTTTTTTTCTTAGGGTTGCATTTATAATTTACAG  
ATTGCCTTCCTTGGGAACAAGTATTTTTTTGTATGATCTGTCTAAAAACCTCTCACCTGAATTTGTGGTAGAAA  
GTCTGTATTTGTTGTTGTGAGCGTGTTAAATTGATAACAAACCAAACTACTTGATAGCTAAAGCAGATTGTTTCG  
GGTGGGGAGAAAAAGCCCTAAATCAGAATGTTTATATTTGCCTAAAGTTGTCCTTAATAATAACAATATGCTTTAG  
ATCTTGCTTATTTAGTGATTGTATACCAGGAAAACAATTAGACTCAAATCAGTGATGTTCTTGTTCTTGGTGTTT  
ATGAACATATATCAAAGATTAAAATTGTCCTGTGTTTCTTGTTTCAAGGTACGTGTGTGTGTGTGTGTGTGTGTG  
TGTGTGTGTGTGTGTGAAGTCTTAAATGTTTTATTAGTCTACAGCTAATCAGTTTATTGTAATATTGTATGTA  
CAGTGAGATTAAATGTCTTGCGTTTTTCATCCTTTGTGAATTAAAAATTCTCACTTGTTTTGTAATAACAAAGCTAG  
TAAATATTTTCTGTCTTGACAGCTTGGTTTTATAGTAGAAAAATATATTTAAAGCTGAAATAAATTATCAGTGGA  
TTTTAAAAAAGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 541**

MKMADRSGKIIPGQVYIEVEYDYEYEAKDRKIVIKQGERYILVKKTNDWWQVKPDENSKAFYVPAQYVREVTRK  
ALMPPVKQVAGLPNNSTKIMQSLHLQRSTENVNKLPELSSFGKPSSSVQGTGLIRDANQNFGPSYNQGQTVNLSL  
DLTHNNGKFNNDSHSPKVSSQNRTRSFHFPGPEFLDVEKTSFSQEQSCDSAGEGSERIHQDSESGDELSSSSTE  
QIRATTPPNQGRPDSPVYANLQELKISQSALPPLPGSPAQINGEWETHKDSSGRYYYYNRGTQERTWKPPRWTR  
DASISKGDFQNPQDQEWLKHVDDQGRQYYYSADGSRSEWELPKYNASSQQQREIIKSRSLDRRLQEP IVLTKWRH  
STIVLDTNDKESPTASKPCFPENESSPSPKHQDQDQEKYGLLNVTKIAENGKKVRKNWLSSWAVLQGSLLFTK  
TQGSSTSWFGSNQSKPEFTVDLKGATIEMASKDKSSKKNVFELKTRQGTELLIQSDNDTVINDWFKVLSSTINNQ  
AVETDEGIEEEEIPDSPGIEKHDKKEKEQKDPKKLRSFKVSSIDSSEQKTKKNLKKFLTRRPTLQAVREKGYIKDQ  
VFGSNLANLCQRENGTVPKFVKLCIEHVEEHGLDIDGIYRVSGNLAVIQKLRFAVNHDEKLDLNDKWDIHVIT  
GALKMFFRELPEPLFTFNHFNDFVNAIKQEPRPRVAVKDLIRQLPKPNQDTMQILFRHLRRVIENGEKNRMTYQ  
SIAIVFGPTLLKPEKETGNIAVHTVYQNQIVELILLELSSIFGR

**ATG**ACCATGGAACAGTTGAATCCCAGCATGATGGAAGTATAACAGCTTCTTTGACAGAGAGCAAGTCTGCTCAT  
GTGCAGACTCAGACTGGGCAAATTTCAATCCCTGCTTTAGCTCAGTGCACTGAGCTGAGATCAGGCACCAGAAGA  
GGCTCCCCAGCTGTAACCTCTAGTGCAGTTACCTTCGGGCCAAACTATACATGTCCAGGGAGTAATTCAGACACCA  
CAGCCATGGGTATTTCAGTCATCAGAAATACACACCGTTTCAGGTAGCAGCAATTGCAGAGACAGATGAATCTGCA  
GAATCAGAAGGTGTAATTGATTCTCATAAACGTAGAGAAATCCTTTACGAAGACCCTCTTATAGGAAAATACTG  
AATGAACTGTCCTCTGATGTGCCTGGTGTTCCTCAAGATTGAAGAAGAGAGATCAGAGGAAGAAGGAACACCACCT  
AGTATTGCTACCATGGCAGTACCAACTAGCATATATCAGACTAGCACGGGGCAATACATTGCTATAGCCCAAGGT  
GGAACAATCCAGATTTCTAACCAGGATCTGATGGTGTTCAGGGACTGCAGGCATTAACAATGACAAAATTCAGGA  
GCTCCTCCACCAGGTGCTACAATTGTACAGTACGCAGCACAATCAGCTGATGGCACACAGCAGTTCTTTGTCCCA  
GGCAGCCAGGTTGTTGTTCAAGCTGCCACTGGTGACATGCCAACTTACCAGATCCGAGCTCCTACTGCTGCTTTG  
CCACAGGGAGTGGTGATGGCTGCATCGCCCGGAAGTTTGACAGTCCCCAGCAGCTGGCAGAAGAAGCAACACGC  
AAACGAGAGCTGAGGCTAATGAAAAACAGAGAAGCTGCCCCGGGAGTGTCGCAGGAAGAAGAAAGAATATGTCAA  
TGCTTTGAAAATCGTGTGGCTGTGCTTGAAAACCAAAACAAGACTCTCATTGAGGAAGTCAAGGCCCTCAAAGAT  
CTTTATTGCCATAAAGTAGAG**TAA**CTGTCTTTGACTTGGACCTTGTTTACTCTAATCAAGGCAGGAGATGCAGCA  
GTCCTACTTATTGCCATGTGGACTTGTGGGAAGGACACGTGTGACCCTTAAGAATCCAGTTTGGATTAGTGTGTTG  
AAATTGAATTGGGAATGTTGTTCCAGGATGTGGAATGCAGCGTGATCACACTTACCGAGCTTACTTTGATCTGTT  
TGTCAATAGCATGCAAAAATGCTTTGTTTGCCCTTTGCTTCTGCTTTTTTTTCAGGGAAGCTGCCAAAGAATGTC  
GACGTCGAAAGAAAGAATATGTAAAATGCCTGGAGAGCCGAGTTGCAGTGCTGGAAGTCCAGAACAAGAAGCTTA  
TAGAGGAAGTTGAAACCTTGAAAGACATTTGTTCTCCCAAACTGATTACTAGAAATATTTAACTATGAAGTATGAT  
TACAGA

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**FIGURE 543**

MTMETVESQHDGSITASLTESKSAHVQTQTGQISIPALAQCELSGTRRGSPAVTLVQLPSGQTIHVQGVITP  
QPWVIQSSEIHTVQVAAIAETDESAESEGVIDSHKRREILSRPSYRKILNELSSDVPGVPKIEERSEEEGTPP  
SIATMAVPTSIYQTSTGQYIAIAQGGTIQISNPGSDGVQGLQALMTNSGAPPPGATIVQYAAQSADGTQQFFVP  
GSQVVVQAATGDMPTYQIRAPTAALPQGVVMAASPGSLHSPQQLAEEATRKRELRLMKNREAARECRRKKKEYVK  
CLENRVAVLENQNKTLEELKALKDLYCHKVE

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**FIGURE 544**

GAATTCGGCCAAAGAGGCCTATGCTTCTCTGAAGACTTGCAGCAAGGCTTGCTGAGGCTCACAGAAGATAGCCCC  
AGTGTGTTTGGAGTGGTTTTGAATGTGATTCTGAGATCAGACTGACTGAGCTGGAATCCTGGCTTTATATCTTACC  
AGCTACACAACCTTGGAGTCTTAGAAATTTTTCTTTTCAATAAGCAGTCATCCTTACTTTCCCTCAAGATGACA  
AACAGTTTCGTTCTTCTGCCCAGTTTATAAAGATCTGGAGCCATTACGTAATTTTTTTTATTTAGTTTTCTTGT  
GGAATTATTGGAAGTTGTTTTGCAACCTGGGCTTTTATACAGAAGAATACGAATCACAGGTGTGTGAGCATCTAC  
TTAATTAATTTGCTTACAGCCGATTTCTGCTTACTCTGGCATTACCAGTGAAAATTGTTGTTGACTTGGGTGTG  
GCACCTTGAAGCTGAAGATATTCCTGCTTACTCTGGCATTACCAGTGAAAATTGTTGTTGACTTGGGTGTG  
ATCTTCTTAGCATTGTGTCAGCATTGACCGCTGTCTTCAGCTGACACACAGCTGCAAGATCTACCGAATACAAGAA  
CCCGGATTTGCCAAAATGATATCAACCGTTGTGTGGCTAATGGTCCTTCTTATAATGGTGCCAAATATGATGATT  
CCCATCAAAGACATCAAGGAAAAGTCAAATGTGGGTGTATGGAGTTTAAAAAGGAATTTGGAAGAAATTGGCAT  
TTGCTGACAAATTTTATATGTGTAGCAATATTTTAAATTTCTCAGCCATCATTTTAATATCCAATTGCCTTGTA  
ATTGACAGCTCTACAGAAACAAAGATAATGAAAATTACCCAAATGTGAAAAAGGCTCTCATCAACATACTTTTA  
GTGACCACGGGCTACATCATATGCTTTGTTTCTTACCACATTGTCCGAATCCCGTATACCCTCAGCCAGACAGAA  
GTCATAACTGATTGCTCAACCAGGATTTCACTCTTCAAAGCCAAAGAGGCTACACTGCTCCTGGCTGTGTGGAAC  
CTGTGCTTTGATCCTATCCTGTACTATCACCTCTCAAAGCATTCCGCTCAAAGGTCAGTGAAGCTTTTGCTCA  
CCTAAAGAGACCAAGGCTCAGAAAGAAAAATTAAGATGTGAAAATAATGCATATAAGACAGGATTTTTTGTGCTA  
CCAATTCCTGGCCTTACTGGACCATAAAGTTAATTATAGCTTTGAAAGATAAAAAAAAAAAAAAGCGGCCGC

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**FIGURE 545**

MTNSSFFCPVYKDLEPFTYFFYLVFLVGIIGSCFATWAFIQKNTNHRCSVSIYLINLLTADFLTLALPVKIVVDL  
GVAPWKLKIFHCQVTACLIYINMYLSIIFLAFVSDRCLQLTHSCKIYRIQEPGFAKMISTVVWLMVLLIMVPM  
MIPKDIKEKSNVGCMEFKKEFGRNWHLLTNFICVAIFLNFSAILISNCLVIRQLYRNKDNENYPNVKKALINI  
LLVTTGYIICFVPYHIVRIPYTLSQTEVITDCSTRISLFKAKEATLLLA VSNLCFDPILYYHLSKAFRSKVTETF  
ASPKETKAQKEKLR CENNA

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**FIGURE 546**

GAATTCGGCACGAGTCAGGGAAGCAGCCCCGGCGGCCAGCAGGGAGCTCAGGACAGAGCAGGCTCCCTGGGAAGC  
CTCCGGGTGATAGGGGTGTTCCAGCTGCGGCGCTCTGGGGGTTTCAGAGGGGGATCTTGAATGAACAAATGAATGA  
ACTGCTTTCTGGGCAAACAGCCACAGCCAGAGGAGCCTGTGATTGGCAGAAAGAAGCCAGGGTGTGCAAGTCTCC  
CCAACAGCCTCGAGTGGCCTGCAGTCACAGGGAACCCCTCAGGAAGACCTTCCGGGCAGAGACCAGAGGGAAGCCC  
ATCTCTCCAGCAGAAGTGTGGATTTTTCTACCAGGAGGCTCAGGGCTCTGCAACAATGATAGCAGAAGCTGAT  
GGCATCTAGAGATCTAGGCTGGGACTAGCACAGCATCACTTCTACCACCTTTCTGTTGGTTCACAGCAACTCACCAT  
GCCAGTGCAGATTCAAGGGGAGGAGAAATAGAGTCCACTTCTTGATGGGAGGCGTGACATAGAATGAGGATGAA  
GATTACAACACTTCCATCAGTTACGGTGATGAATACCCTGATTATTTAGACTCCATTGTGGTTTTGGAGGACTTA  
TCCCCCTTGGAAGCCAGGGTGACCAGGATCTTCCTGGTGGTGGTCTACAGCATCGTCTGCTTCCTCGGGATTCTG  
GGCAATGGTCTGGTGATCATCATTGCCACCTTCAAGATGAAGAAGACAGTGAACATGGTCTGGTTCCCTCAACCTG  
GCAGTGGCAGATTTCTGTTCACGTCTTCCTCCCAATCCATATCACCTATGCCGCCATGGACTACCACTGGGTT  
TTCGGGACAGCCATGTGCAAGATCAGCAACTTCCTTCTCATCCACAACATGTTACACAGCGTCTTCCTGCTGACC  
ATCATCAGCTCTGACCGCTGCATCTCTGTGCTCCTCCCTGTCTGGTCCCAGAACCACCGCAGCGTTTCGCTGGCT  
TACATGGCCTGCATGGTCATCTGGGTCTGGCTTTCTTCTTGAGTTCCCCATCTCTCGTCTTCCGGGACACAGCC  
AACCTGCATGGGAAAATATCTGCTTCAACAACCTTCAGCCTGTCCACACCTGGGTCTTCCTCGTGGCCCACTCAC  
TCCCAAATGGACCCTGTGGGGTATAGCCGGGCACATGGTGGTGACTGTCACCCGCTTCCTCTGTGGCTTCCTGGTC  
CCAGTCCTCATCATCACAGCTTGCTACCTCACCATCGTGTGCAAACCTGCAGCGCAACCGCCTGGCCAAGACCAAG  
AAGCCCTTCAAGATTATTGTGACCATCATCATTACCTTCTTCCTCTGCTGGTGCCCTACCACACACTCAACCTC  
CTAGAGCTCCACCACACTGCCATGCCTGGCTCTGTCTTCAGCCTGGGTTTGCCCTGGCCACTGCCCTTGCCATT  
GCCAACAGCTGCATGAACCCCATTCGTATGTTTTTCATGGGTGAGGACTTCAAGAAGTTCAAGGTGGCCCTCTTC  
TCTCGCCTGGTCAATGCTCTAAGTGAAGATACAGGCCACTCTTCCTACCCAGCCATAGAAGCTTTACCAAGATG  
TCATCAATGAATGAGAGGACTTCTATGAATGAGAGGGAGACCGGCATGCTTTGATCCTCACTGTGGAACCCCTCA  
ATGGACTCTCTCAACCCAGGGACACCCAAGGATATGTCTTCTGAAGATCAAGGCAAGAACCTCTTTAGCATCCAC  
CAATTTTCACTGCATTTTGCATGGGATGAACAGTGTCTTATGCTGGGAATCTAGGGCCTGGAACCCCTTTCTTCT  
AGTGGACAGAACATGCTGTGTTCCATACAGCCTTGGACTAGCAATTTATGCTTCTTGGGAGGCCAGCCTTGACTG  
ACTCAAAGCAAAAAGGAAGAATTC

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**FIGURE 547**

MEDEDYNTSISYGDEYPDYLDLSIVVLEDLSPLEARVTRIFLVVVYSIVCFLGILGNGLV III IATFKMKKTVMNVW  
FLNLAVADFLFNVFLPIHITYAAMDYHWWFGTAMCKISNFLLIHNMFTSVFLLTIISSDRCISVLLPVWSQNHR  
VRLAYMACMVIWVLAFFLSSPSLVFRDTANLHGKISCNNFSLSTPGSSSWPTHSQMDPVGYSRHMVTVTRFLC  
GFLVPVLIITACYLTIVCKLQRNRLAKTKKPKIIVTIIITFFLCWCPYHTLNLELHHTAMPGSVFSLGLPLAT  
ALAIANSCMNPILYVFMGQDFKKFKVALFSRLVNALSEDTHGSSYPSHRSFTKMSSMNERTSMNERETGML



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**FIGURE 548**

[illegible]

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**FIGURE 549**

MDFSRNLYDIGEQLDSEDLASLKFLSLDYIPQRKQEPKDALMLFQRLQEKRMLEESNLSFLKELLFRINRLDLL  
ITYLNTRKEEMERELQTPGRAQISAYRFHFCRMSWAEANSQCQTQSVPFWRRVDHLLIRVMLYQISEEVSRSEL  
SFKFLLQEEISKCKLDDDMNLLDIFIEMEKRVILGEGKLDILKRVCAQINKSLLKIINDYEEFSKGEELCGVTI  
SDSPREQDSESQTLDKVYQMSKPRGYCLIINNHNFAKAREKVPKLHSIRDRNGTHLDAGALTTTFFELHFEIKP  
HDDCTVEQIYEILKIYQLMDHSNMDCFICCILSHGDKGIYGTGQEAPIYELTSQFTGLKCPSLAGKPKVFFIQ  
ACQGDNYQKGIPVETDSEEQPYLEMDLSSPQTRYIPDEADFLGMATVNNCVSYRNPAEGTWYIQSLCQSLRERC  
PRGDDILTILTEVNYEVSNKDDKKNMGKQMPQPTFTLRKKLVFSPD

**FIGURE 550**

GTTCCTTCTGAGCA**ATG**GAGCTTACCATCTTTATCCTGAGACTGGCCATTTACATCCTGACATTTCCCT  
TGACCTGCTGAACCTTTCTGGGCTTGTGGAGCTGGATATGCAAAAATGGTTCCCCTACTTCTTGGTGAGGTTCA  
CTGTGATATACAACGAACAGATGGCAAGCAAGAAGCGGGAGCTCTTCAGTAACCTGCAGGAGTTTGCGGGCCCCCT  
CCGGGAAACTCTCCCTGCTGGAAGTGGGCTGTGGCACGGGGGCCAACTTCAAGTTCTACCCACCTGGGTGCAGGG  
TGACCTGTATTGACCCCAACCCCAACTTTGAGAAGTTTTTGATCAAGAGCATTGCAGAGAACCGACACCTGCAGT  
TTGAGCGCTTTGTGGTAGCTGCCGGGAGAACATGCACCAGGTGGCTGATGGCTCTGTGGATGTGGTGGTCTGCA  
CCCTGGTGCTGTGCTCTGTGAAGAACCAGGAGCGGATTCTCCGCGAGGTGTGCAGAGTGCTGAGACCGGGAGGGG  
CTTTCTATTTTCATGGAGCATGTGGCAGCTGAGTGTTCGACTTGGAATTACTTCTGGCAACAAGTCCTGGATCCTG  
CCTGGCACCTTCTGTTTGATGGGTGCAACCTGACCAGAGAGAGCTGGAAGGCCCTGGAGCGGGCCAGCTTCTCTA  
AGCTGAAGCTGCAGCACATCCAGGCCCCACTGTCCTGGGAGTTGGTGCGCCCTCATATCTATGGATATGCTGTGA  
**AATAGT**GTGAGCTGGCAGTTAAGAGCTGAATGGCTCAAAGAATTTAAAGCTTCAGTTTTACATTTAAAATGCTAA  
GTGGGAGAAGAGAAAACCTTTTTTTTGGGGGGCGGTTTTTTTGGTTTGTGTTGGTTTTTTTTTTTTTTTGGCAA  
GACTCCGTCTCAAAAAAAAAAAAAAAAAAAAAAGAGTAGAGACAGGGAGACAGGGTCTCACTGTGTTGCCTAG  
GCCGGTCTTGAACCTCCTGGGCTCAAGTGATTCTCCACCTTGACCTCCTAAATTGTTGGGATTACAGGTGTGAGA  
CAGTGCACCTGGCCGAAATAGCTCAAGTTTCTGAAAAACAAATCTGAATCTATTTGTTATTCTTAGCGTCACTGG  
TCTGGCTTTTCAAGATTAACATACAAGGTTGCCACACCTAGTTCTGCCCAGCTTTATGTCTTTTATTCCAGTATTC  
CACCAAAGTTTGTCTTCTGCAATTCAGTTCTCAAGTCTTAAGATAAAGATTGTAAGTTGACAGTTTAGTATATCC  
ATAAACTATTTGAGGTGGTTAAGGTTCTTGGGTTCAATTTTCTTAATACTTTGCTGAATATTGTAGATTGTAGG  
CAATGAAAAGTCTACTAAATTAGGAAAACCTTGAATAATTAGGTATCCTAGGTAAGAGCCCCTAAACATCAAGC  
AATCTGTGAGTCTGTAAAGAAATAAATATTTTTTGGATTATTCTTATCTAATTCACCCCTGTTGGAAGATGATT  
TCTTTGTTCTTTGCAACTATGGAAGCTGTGAAAATCATCACAAGTGCCCTCTGAAAGCGAGTGTTAGGTTGGTTAG  
AGGGTTTAATATTTTCTGCAATGGTTTGTAGGAATTTAATAAATGTAGTATATTTTCTGAGATGATTTTGTAAA  
AGTACTATTTTAAATATCAATCAACCAATAAATTCACATTTGTGTTAGGAACAG

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**FIGURE 551**

MELTIFILRLAIYILTFPLYLLNFLGLWSWICKKWFYFLVRFTVIYNEQMASKKRELF SNLQEFAGPSGKLSLL  
EVGCGTGANFKFYPPGCRVTCIDPNPNFEKFLIKSIAENRHLQFERFVVAAGENMHQVADGSVDVVCTLVLC SV  
KNQERILREVCRLRPGGAFYFMEHVAAECSTWNYFWQQVLDPAWHLLFDGCNLTRESWKALERASF SKLKLQHI  
QAPLSWELVRPHIYGYAVK

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**FIGURE 552**

GGGCAACGGAGGGGAAATAAAAGGGAACGGCTCCGAATCTGCCCCAGCGGCCGCTGCGAGACCTCGGCGCCGACA  
 TCGCGACAGCGAAGCGCTTTGCACGCCAGGAAGGTCCCCTCTATGTGCTGCTGAGCCGGTCTGGACGCGACGAG  
 CCCGCCCTCGGTCTTCGGAGCAGAATTCGAAAAACGGAAGGACTGGAA**ATG**GCAGACCATATGATGGCAATGAA  
 CCACGGGCGCTTCCCCGACGGCACCAATGGGCTGCACCATCACCCCTGCCACCGCATGGGCATGGGGCAGTTCCC  
 GAGCCCCCATCACCACCAGCAGCAGCAGCCCCAGCACGCCTTCAACGCCCTAATGGGCGAGCACATACACTACGG  
 CGCGGGCAACATGAATGCCACGAGCGGCATCAGGCATGCGATGGGGCCGGGGACTGTGAACGGAGGGCACCCCCC  
 GAGCGCGCTGGCCCCCGCGCCAGGTTTAACAACCTCCAGTTCATGGGTCCCCCGGTGGCCAGCCAGGGAGGCTC  
 CCTGCCGGCCAGCATGCAGCTGCAGAAGCTCAACAACCAGTATTTCAACCATCACCCCTACCCCCACAACCACTA  
 CATGCCGGATTTGCACCCTGCTGCAGGCCACCAGATGAACGGGACAAACCAGCACTTCCGAGATTGCAACCCCAA  
 GCACAGCGGCGGCAGCAGCACCCCCGGCGGCTCGGGCGGCAGCAGCACCCCCGGCGGCTCTGGCAGCAGCTCGGG  
 CGGCGGCGCGGGCAGCAGCAACAGCGGCGGCGGCAGCGGCAGCGGCAACATGCCCGCTCCGTGGCCCACGTCCC  
 CGCTGCAATGCTGCCGCCCAATGTTCATAGACACTGATTTTCATCGACGAGGAAGTTCTTATGTCCTTGGTGATAGA  
 AATGGGTTTGGACCGCATCAAGGAGCTGCCCCGAACCTCTGGCTGGGGCAAACGAGTTTGATTTTATGACGGACTT  
 CGTGTGCAAACAGCAGCCCAGCAGAGTGAGCTGT**TGAC**TCGATCGAAACCCCGGCGAAAGAAATCAAACCCCCAA  
 CTTCTTCGGCGTGAATTTAAAGAAACATTCCCTTAGACACAGTATCTCACTTTTTCAGATCTTGAAAGGTTTGAGA  
 ACTTGGAACAAAGTAACTATAAACTTGTACAAATTGTTTTTAAAAAAATTGCTGCCACTTTTTTTCCTGTTT  
 TTGTTTCGTTTTTGTAGCCTTGACATTCACCCACCTCCCTTATGTAGTTGAAATATCTAGCTAACTTGGTCTTTT  
 TCGTTGTTTGTTTTTACTCCTTTCCCTCACTTTCTCCAGTGCTCAACTGTTAGATATTAATCTTGGCAAACCTGCT  
 TAATCTTGTGGATTTTGTAGATGGTTTTCAAATGACTGAACTGCATTTCAGATTTACGAGTGAAAGGAAAAATTGCA  
 TTAGTTGGTTGCATGAACCTTGAAGGGCAGATATTACTGCACAACTGCCATCTCGCTTCATTTTTTTAACTATG  
 CATTTGAGTACAGACTAATTTTTTAAATATGCTAACTGGAAGATTAAACAGATGTGGGCCAACTGTTCTGGAT  
 CAGGAAAGTCATACTGTTCACTTTCAAGTTGGCTGTCCCCCGCGCCCCCCCCACCCCCATATGTACAGATGA  
 TAATAGGGTGTGGAATGTCGTCAGTGGCAAACATTTACAGATTTTTTATTTTGTCTGTCTCAACATTTTTGA  
 CACTGTGCTAATAGTTATATTTCAGTACATGAAAAGATACTACTGTGTTGAAAGCTTTTTAGGAAATTTTGACAGT  
 ATTTTGTACAAAACATTTTTTTGAAAAAATACTTGTTAATTTATTCTATTTTAATTTGCCAATGTCAATAAAAA  
 GTTAAGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 553**

MADHMMAMNHGRFPDGTNGLHHHPAHRMGMGQFPSPHHHQQQPQHAFNALMGEHIHYGAGNMNATSGIRHAMGP  
GTVNGGHPPSALAPAARFNNQFMGPPVASQGGSLPASMQLQKLNNQYFNHHPYPHNHYMPDLHPAAGHQMNNGTN  
QHFRDCNPKHSGGSSTPGGSGGSSTPGGSGSSSGGAGSSNSGGSGSGNMPASVAHVPAAMLPPNVIDTDFIDE  
EVLMSLVIEMGLDRIKELPELWLGQNEFDFMTDFVCKQQPSRVSC

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**FIGURE 554**

ACACGGACCAAGGAGTCTAACACGTGCGCGAGTCGGGGGCTCGCACGAAAGCCGCCGTGGCGCAATGAAGGTGAA  
GGCCGGCGCGCTCGCCGGCCGAGGTGGGATCCCGAGGCCTCTCCAGTCCGCCGAGGGCGCACCACCGGCCGTCT  
CGCCCGCCGCGCCGGGGAGGTGGAGCACGAGCGCACGTGTTAGGACCCGAAAAGATGGTGAAGTATGCCTGGGCAG  
GGCGAAGCCAGAGGAAACTCTGGTGGAGGTCCGTAGCGGTCTGTACGTGCAAAATCGGTCTCGACCTGGGTATA  
GGGGCGGGCTCCAGGCGAGGCGGTGACGCTCCTGAAAACCTTGCGCGCGCTCGCGCCACTGCGCCCGGAGCGA  
TGAAGATGGTTCGCGCCCTGGACGCGGTTCTACTCCAACAGCTGCTGCTTGTGCTGCCATGTCCGCACCGGCACCA  
TCCTGCTCGGCGTCTGGTATCTGATCATCAATGCTGTGGTACTGTTGATTTTATTGAGTGCCCTGGCTGATCCGG  
ATCAGTATAACTTTTCAAGTTCTGAAGTGGGAGGTGACTTTGAGTTTCATGGATGATGCCAACATGTGCATTGCCA  
TTGCGATTTCTCTTCTCATGATCCTGATATGTGCTATGGCTACTTACGGAGCGTACAAGCAACGCGCAGCCTGGA  
TCATCCCATTTCTTCTGTTACCAGATCTTTGACTTTGCCCTGAACATGTTGGTTGCAATCACTGTGCTTATTTATC  
CAAACCTCCATTACAGGAATACATACGGCAACTGCCTCCTAATTTTCCCTACAGAGATGATGTGATGTGCTGATGAATC  
CTACCTGTTTGGTCTTATTATTCTTCTGTTTATTAGCATTATCTTGACTTTTAAAGGTTACTTGATTAGCTGTG  
TTTGAACTGCTACCGATACATCAATGGTAGGAACCTCTGATGTCTGGTTTATGTTACCAGCAATGACACTA  
CGGTGCTGCTACCCCGTATGATGATGCCACTGTGAATGGTGTGCAAGGAGCCACCGCCACCTTACGTGTCTG  
CCTAAGCCTTCAAGTGGGCGGAGCTGAGGGCAGCAGCTTGACTTTGCAGACATCTGAGCAATAGTTCTGTTATTT  
CACTTTTGCCATGAGCCTCTCTGAGCTTGTTTGTGCTGAAATGCTACTTTTTAAATTTAGATGTTAGATTGAA  
AACTGTAGTTTTCAACATATGCTTTGCTAGAACACTGTGATAGATTAACTGTAGAATTCTTCCTGTACGATTGGG  
GATATAATGGGCTTCACTAACCTTCCCTAGGCATTGAAACTTCCCCCAAATCTGATGGACCTAGAAGTCTGCTTT  
TGTACCTGCTGGGCCCCAAAGTTGGGCATTTTTCTCTCTGTTCCCTCTCTTTTGAAAATGTAAAATAAAACCAAA  
AATAGACAACTTTTCTTCAGCATTCCAGCATAGAGAACAAAACCTTATGGAAACAGGAATGTCAATTGTGTAA  
TCATTGTTCTAATTAGGTAAATAGAAGTCCTTATGTATGTGTTACAAGAATTTCCCCCACAACATCCTTTATGAC  
TGAAGTTCAATGACAGTTTGTGTTTGGGTGGTAAAGGATTTTCTCCATGGCCTGAATTAAGACCATTAGAAAGCA  
CCAGGCCGTGGGAGCAGTGACCATCTGCTGACTGTTCTTGTGGATCTTGTGTCCAGGGACATGGGGTGACATGCC  
TCGTATGTGTTAGAGGGTGGAAATGGATGTGTTTGGCGCTGCATGGGATCTGGTGCCCTCTTCTCCTGGATTAC  
ATCCCCACCCAGGGCCCGCTTTTACTAAGTGTCTGCCCTAGATTGGTTCAAGGAGGTCATCCAACCTGACTTTAT  
CAAGTGGAATTGGGATATATTTGATATACTTCTGCCTAACAAACATGGAAAAGGGTTTTCTTTTCCCTGCAAGCTA  
CATCCTACTGCTTTGAACTTCCAAGTATGTCTAGTCACCTTTTAAATGTAAACATTTTACAGAAAATGAGGATT  
GCCTTCCTTGTATGCGCTTTTACCTTGACTACCTGAATTGCAAGGGATTTTTATATATTCATATGTTACAAAGT  
CAGCAACTCTCCTGTTGGTTCATTATTGAATGTGCTGTAAATTAAGTTGTTTGCAATTAACAAGGTTTGCCCA  
CAAAAAAAAAA

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**FIGURE 555**

MVNYAWAGRSQRKLWWRSVAVLTCKSVVRPGYRGGLQARRSTLLKTCARARATAPGAMKMVAPWTRFYSNSCCLC  
CHVRTGTILLGVWYLIINAVVLLILLSALADPDQYNFSSSELGGDFEFMDDANMCIAIAISLLMILICAMATYGA  
YKQRAAWIIPFFCYQIFDFALNMLVAITVLIYPNSIQEYIRQLPPNFPYRDDVMSVNPTCLVLIILLFISIILTF  
KGYLISCVWNCYRYINGRNSSDVLVYVTSNDTTVLLPPYDDATVNGAAKEPPPPYVSA



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**FIGURE 556**

GGACAACCGGCTGGGGTCCTTGCGCGCCGCGGCTCAGGGAGGAGCACCGACTGCGCCGCACCCTGAGAGATGGTT  
GGTGCCATGTGGAAGGTGATTGTTTCGCTGGTCCTGTTGATGCCTGGCCCCCTGTGATGGGCTGTTTCGCTCCCTA  
TACAGAAGTGTTTCCATGCCACCTAAGGGAGACTCAGGACAGCCATTATTTCTCACCCCTTACATTGAAGCTGGG  
AAGATCCAAAAAGGAAGAGAATTGAGTTTGGTCGGCCCTTTCCCAGGACTGAACATGAAGAGTTATGCCGGCTTC  
CTCACCGTGAATAAGACTTACAACAGCAACCTCTTCTTCTGGTTCTTCCCAGCTCAGATACAGCCAGAAGATGCC  
CCAGTAGTTCTCTGGCTACAGGGTGGGCCGGGAGGTTTCATCCATGTTTGGACTCTTTGTGGAACATGGGCCTTAT  
GTTGTCACAAAGTAACATGACCTTGCGTGACAGAGACTTCCCCCTGGACCACAACGCTCTCCATGCTTTACATTGAC  
AATCCAGTGGGCACAGGCTTCAGTTTTTACTGATGATACCCACGGATATGCAGTCAATGAGGACGATGTAGCACGG  
GATTTATACAGTGCACATAATTGAGTTTTTCCAGATATTTCTGAATATAAAAAATAATGACTTTTTATGTCAGTGGG  
GAGTCTTATGCAGGGAAATATGTGCCAGCCATTGCACACCTCATCCATTCCCTCAACCCTGTGAGAGAGGTGAAG  
ATCAACCTGAACGGAATTGCTATTGGAGATGGATATTCTGATCCCGAATCAATTATAGGGGGCTATGCAGAATTC  
CTGTACCAAATTGGCTTGTTGGATGAGAAGCAAAAAAAGTACTTCCAGAAGCAGTGCCATGAATGCATAGAACAC  
ATCAGGAAGCAGAACTGGTTTGAGGCCTTTGAAATACTGGATAAACTACTAGATGGCGACTTAACAAGTGATCCT  
TCTTACTTCCAGAATGTTACAGGATGTAGTAATTACTATAACTTTTTGCGGTGCACGGAACCTGAGGATCAGCTT  
TACTATGTGAAATTTTTGTCACTCCCAGAGGTGAGACAAGCCATCCACGTGGGGAATCAGACTTTTAAATGATGGA  
ACTATAGTTGAAAAGTACTTGCGAGAAGATACAGTACAGTCAGTTAAGCCATGGTTAACTGAAATCATGAATAAT  
TATAAGGTTCTGATCTACAATGGCCAACTGGACATCATCGTGCGCAGCTGCCCTGACAGAGCGCTCCTTGATGGGC  
ATGGACTGGAAAGGATCCCAGGAATACAAGAAGGCAGAAAAAAAAGTTTGGAAGATCTTTAAATCTGACAGTGAA  
GTGGCTGTTTACATCCGGCAAGTGGGTGACTTCCATCAGGTAATTATTTCGAGGTGGAGGACATATTTTACCCTAT  
GACCAGCCTCTGAGAGCTTTTGACATGATTAATCGATTCAATTTATGGAAAAGGATGGGATCCTTATGTTGGATTAA

ACTACCTTCCCAAAAGAGAACATCAGAGGTTTTTCATTGCTGAAAAGAAAATCGTAAAAACAGAAAATGTCATAGG  
AATAAAAAAATTATCTTTTCATATCTGCAAGATTTTTTTCATCAATAAAAAATTATCCTTGAAA

**FIGURE 557**

MVGAMWKVIVSLVLLMPGPCDGLFRSLYRSVSMPPKGD SGQPLFLTPYIEAGKIQKGRELSLVGPFPGLNMKSYA  
GFLTIVNKTYNSNLFFWFFPAQIQPEDAPVVLWLQGGPGGSSMGLFVEHGPYVVT SNMTLRDRDFPWTTL SMLY  
IDNPVGTGFSFTDDTHGYAVNEDDVARDLYSALI QFFQIFPEYKNND FYVTGESYAGKYVPAIAHLI HSLNPVRE  
VKINLNGIAIGDGYSDPESIIGGYAEFLYQIGLLDEKQKKYFQKQCHECIEHIRKQNWFEAFEILDKLLDGD LTS  
DPSYFQNVITGCSNYYNFLRCTEPEDQLYYVKFLSLPEVRQAIHVGNQTFNDGTIVEKYLREDTVQSVK PWLTEIM  
NNYKVLIIYNGQLDIIVAAALTERSLMGMDWKG SQEYKKA EKKVWKIFKSDSEVAGYIRQVGDFHQVIIRGGGHIL  
PYDQPLRAFDMINRFIYGKGWDPYVG

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**FIGURE 558**

CTACCTCTTCCTCTCCACGCGGTTGAGAAGACCGGTCGGCCTGGGCAACCTGCGCTGAAGATGCCGGGAAAACCTC  
CGTAGTGACGCTGGTTTGGGAATCAGACACCGCAATGAAAAAGGGGAGACACTGCGAAAGCAAACCGAGGAGAAA  
GAGAAAAAAGAGAAGCCAAAATCTGATAAGACTGAAGAGATAGCAGAAGAGGAAGAAAACCTGTTTCCCCAAAGC  
TAAACAAGTTAAAAAGAAAGCAGAGCCCTTCTGAAGTTGACATGAATTCTCTAAATCCAAAAAGGCCAAAAAGAA  
AGAGGAGCCATCTCAAAATGACATTTCTCCTAAAACCAAAGTTTGAGAAAGAAAAAGGAGCCCATTGAAAAGAA  
AGTGTTTTCTTCTAAAACCAAAAAAGTGACAAAAAATGAGGAGCCTTCTGAGGAAGAAAATAGATGCTCCTAAGCC  
CAAGAAGATGAAGAAAGAAAAGGAAATGAATGGAGAACTAGAGAGAAAAGCCCCAAACTGAAGAATGGATTTC  
TCATCCTGAACCGGACTGTAACCCAGTGAAGCTGCCAGTGAAGAAAGTAACAGTGAGATAGAGCAGGAAATACC  
TGTGGAACAAAAAGAAGGCGCTTCTCTAATTTCCCATATCTGAAGAACTATTAACTTCTCAAAGGCCGAGG  
AGTGACCTTCCTATTTCTATACAAGCAAAGACATTCCATCATGTTTACAGCGGGAAGGACTTAATTGCACAGGC  
ACGGACAGGAACTGGGAAGACATTCTCCTTTGCCATCCCTTTGATTGAGAACTTCATGGGGAAC TGCAAGACAG  
GAAGAGAGGCCGTGCCCCCTCAGGTACTGGTCTTGACCTACAAGAGAGTTGGCAAATCAAGTAAGCAAAGACTT  
CAGTGACATCACAAAAAGCTGTGAGTGGCTTGTTTTATGGTGGAACCTCCCTATGGAGGTCAATTTGAACGCAT  
GAGGAATGGGATTGATATCCTGGTTGGAACACCAGGTCGTATCAAAGACCACATACAGAATGGCAAACCTAGATCT  
CACCAAACCTTAAGCATGTTGTCTGGATGAAGTGGACCAGATGTTGGATATGGGATTTGCTGATCAAGTGAAGA  
GATTTTAAGTGTGGCATAACAAGAAAGATTCTGAAGACAATCCCCAAACATTGCTTTTTTCTGCAACTTGCCCTCA  
TTGGGTATTTAATGTTGCCAAGAAATACATGAAATCTACATATGAACAGGTGGACCTGATTGGTAAAAAGACTCA  
GAAAACGGCAATAACTGTGGAGCATCTGGCTATTAAGTGCCACTGGACTCAGAGGGCAGCAGTTATTGGGGATGT  
CATCCGAGTATATAGTGGTCATCAAGGACGCACTATCATCTTTTGTGAAACCAAGAAAGAGCCAGGAGCTGTC  
CCAGAATTCAGCTATAAAGCAGGATGCTCAGTCCTTGATGGAGACATTCCACAGAAGCAAAGGGAAATCACCCCT  
GAAAGGTTTTAGAAATGGTAGTTTTTGGAGTTTTTGGTGGAACCAATGTTGCTGCACGTGGGTTAGACATCCCTGA  
GGTTGATTTGGTTATACAAGCTCTCCACCAAGGATGTAGAGTCCTACATTCATCGATCCGGGCGGACAGGCAG  
AGCTGGAAGGACGGGGGTGTGCATCTGCTTTTATCAGCACAAGGAAGAATATCAGTTAGTACAAGTGGAGCAAAA  
AGCGGGAATTAAGTTCAAACGAATAGGTGTTCTTCTGCAACAGAAATAATAAAAGCTTCCAGCAAAGATGCCAT  
CAGGCTTTTGGATTCCGTGCCTCCCACTGCCATTAGTCACCTCAAACAATCAGCTGAGAAGCTGATAGAGGAGAA  
GGGAGCTGTGGAAGCTCTGGCAGCAGCACTGGCCCATATTTAGGTGCCACGTCCGTAGACCAGCGCTCCTTGAT  
CAACTCAAATGTGGGTTTTTGTGACCATGATCTTGACGTGCTCAATTGAAATGCCAAATATTAGTTATGCTTGGAA  
AGAACTTAAAGAGCAGCTGGGCGAGGAGATTGATTCCAAAGTGAAGGGAATGGTTTTTCTCAAAGGAAAGCTGGG  
TGTTTGCTTTGATGTACCTACCGCATCAGTAACAGAAATACAGGAGAAATGGCATGATTACGACGCTGGCAGCT  
CTCTGTGGCCACAGAGCAACCAGAATGGAAGGACCACGGGAAGGATATGGAGGCTTCAGGGGACAGCGGGAAGG  
CAGTCGAGGCTTCAGGGGACAGCGGGACGGAAACAGAAGATTACAGAGGACAGCGGGAAGGCAGTAGAGGCCGAG  
AGGACAGCGATCAGGAGGTGGCAACAAAAGTAACAGATCCCCAAACAAAGGCCAGAAGCGGAGTTTCAGTAAAGC  
ATTTGGTCAATTAAATTAGAAATAGAAGATTTATATAGCAAAAAGAGAATGATGTTTGGCAATATAGAAGTGAACAT  
TATTTTTCATGCAAAGTTAAAAGCACATTGTGCCTCCTTTTGACCACTTGCCAAGTCCCTGTCTCTTTCAGACAC  
AGACAAGCTTCATTTAAATTATTTTCATCTGATCATTATCATTATATACTTTATTGTTACTTCATCAGTTTTCTCT  
TTTGAAAGGTGTATGAATTCATTACATTTTTATTCTAATGTATTATCTGTAGATTAGAAGATAAAATCAAGCATG  
TATCTGCCTATACTTTGTGAGTTACCTGTCTTTATACTCAAAGTGTCCCTTAATAGTGTCTTCCCTGAAATA  
AATACCTAAGGGAGTGAACAGTCTCTGGAGGACCCTTTGAGCCTTTGGAAGTTAAGGTTTCCTCAGCCACCTG  
CCGAACAGTTTCTCATGTGGTCCATTTATTTGTCTACTGAGACTTAATACTGAGCAATGTTTTGAAACAAGATTT  
CAAATAATCTGGGTTGTAATACAGTTTATACCAGTGTATGCTCTAGACTTGGAAGATGTAGTATGTTTGATGTG  
GATTACCTATACTTATGTTTCGTTTTGATACATTTTTAGCTTCTCATTATAAGGTGATTCATGCTTTAGTGAATTC  
TTCATAGATAGTATATATAAAAGTACATTTTAAATAGAAAGCCAGGGTTTTAAGGAATTCACATGTATAAGGTGG  
CTCCATAGCTTTATTTGTAAGTAGGCTGGATAAATGGTGCTTAAATGGTAATGTACTCCACTTCTTCTTATTGGA  
AGATTAACATTATTTACCAAGAAGGACTTAAGGGAGTAAGGGGCGCAGATTAGCATTGCTCAAGAGTATGTAAAA  
AAAAAAAAAAAAAAAAAAAA

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**FIGURE 559**

MNSPKSKKAKKKEEPSQNDISPKTKSLRKKKEPIEKKVVSSTKKVTKNEEPSEEEIDAPKPKMKKEKEMNGET  
REKSPKLKNGFPHPEPDCNPSEAASEESNSEIEQEIPVEQKEGAFSNFPISEETIKLLKGRGVTFLEFPIQAKTFH  
HVYSGKDLIAQARTGTGKTFSFAPLIEKLHGELQDRKRGRAPQVLVLAPTRELANQVSKDFSDITKKLSVACFY  
GGTPYGGQFERMRNGIDILVGTPGRIKDHIQNGKLDLTKLKHVVLDQMLDMGFADQVEEILSVAYKKDSEDN  
PQTLLFSATCPHWVFNVAKKYMKSTYEQVDLIGKKTQKTAITVEHLAIKCHWTQRAAVIGDVIRVYSGHQGRTII  
FCETKKEAQELSONSAIKQDAQSLHGDIPQKQREITLKGFRNGSFGLVATNVAARGLDIPVDLVIQSSPPKDV  
ESYIHRSGRTGRAGRTGVCICFYQHKEEYQLVQVEQKAGIKFKRIGVPSATEI IKASSKDAIRLLDSVPPTAISH  
FKQSAEKLIEEKGAVEALAAALAHISGATSVDQRSLINSNVGFVTMILQCSIEMPNISYAWKELKEQLGEEIDSK  
VKGMVFLKGKLGVCFDVPTASVTEIQEKWHSRRWQLSVATEQPELEGPREGYGGFRGQREGSRGFRGQRDGNRR  
FRGQREGSRGPRGQRSGGGNKSNSRSQNKGQKRSFSKAFGQ

## FIGURE 560

CGATTTTCATTCTCGCTCCCCACAGGTCCCTCTCCCCAAAATATTCCCATCTTGTCTAGCCCATCCCCAGACT  
ATCTCAAGGACCAGCTGTCCCCACGCCCCGACCTCCACTAGGCCTGTGCCACCCGCTGCCTGCAGGAAGACGCC  
CGGTCCCGGGCCGGGTTAGCCCCATGGGAACGCAGCGCCTGTGTGGCCGCGGGACTCAAGGCTGGCCTGGCTCAA  
GTGAACAGCACGTCCAGGAGGCGACCTCGTCCGCGGGTTTGCATTCTGGGGTGGACGAGCTGGGGGTTCCGGTCCG  
AGCCCGGTGGGAGGCTCCCGGAGCGCAGCCTGGGCCAGCCACCCCGCGCCGGCGCCATGGCAGGCACCCTGG  
ACCTGGACAAGGGCTGCACGGTGGAGGAGCTGCTCCGCGGGTGCATCGAAGCCTTCGATGACTCCGGGAAGGTGC  
GGGACCCGCGAGCTGGTGCATGTTCCCTCATGATGCACCCCTGGTACATCCCTCCTCTCAGCTGGCGGCCAAGC  
TGCTCCACATCTACCAACAATCCCGGAAGGACAACCTCCAATTCCTGCAGGTGAAAACGTGCCACCTGGTCAGGT  
ACTGGATCTCCGCTTCCAGCGGAGTTTGACTTGAACCCGGAGTTGGCTGAGCAGATCAAGGAGCTGAAGGCTC  
TGCTAGACCAAGAAGGGAACCGACGGCACAGCAGCCTAATCGACATAGACAGCGTCCCTACCTACAAGTGAAGC  
GGCAGGTGACTCAGCGGAACCCGTGTTGGACAGAAAAAGCGCAAGATGTCCCTGTTGTTTGACCACCTGGAGCCCA  
TGGAGCTGGCGGAGCATCTCACCTACTTGGAGTATCGCTCCTTCTGCAAGATCCTGTTTCAGGACTATCACAGTT  
TCGTGACTCATGGCTGCACTGTGGACAACCCCGTCTGGAGCGGTTTCATCTCCCTCTTCAACAGCGTCTCACAGT  
GGGTGCAGCTCATGATCCTCAGCAAACCCACAGCCCCGAGCGGGCCCTGGTCATCACACACTTTGTCCACGTGG  
CGGAGAAGCTGCTACAGCTGCAGAACTTCAACACGCTGATGGCAGTGGTTCGGGGGCTGAGCCACAGCTCCATCT  
CCCGCTCAAGGAGACCCACAGCCACGTTAGCCCTGAGACCATCAAGCTCTGGGAGGGTCTCACGGAAGTGTGA  
CGGCGACAGGCAACTATGGCAACTACCGGCGTGGCTGGCAGCCTGTGTGGGCTTCCGCTTCCCGATCCTGGGTG  
TGCACCTCAAGGACCTGGTGGCCCTGCAGCTGGCACTGCCTGACTGGCTGGACCCAGCCCGGACCCGGCTCAACG  
GGGCCAAGATGAAGCAGCTCTTTAGCATCCTGGAGGAGCTGGCCATGGTGACCAGCCTGCGGCCACCAGTACAGG  
CCAACCCCGACCTGCTGAGCCTGCTCACGGTGTCTCTGGATCAGTATCAGACGGAGGATGAGCTGTACCAGCTGT  
CCCTGCAGCGGGAGCCGCGCTCCAAGTCTCGCCAACCAGCCCCACGAGTTGCACCCACCACCCCGGCCCCCGG  
TACTGGAGGAGTGGACCTCGGCTGCCAAACCCAAGCTGGATCAGGCCCTCGTGGTGGAGCACATCGAGAAGATGG  
TGGAGTCTGTGTTCCGGAACCTTGACGTGATGGGGATGGCCACATCTCACAGGAAGAATTCCAGATCATCCGTG  
GGAACCTTCCCTTACCTCAGCGCCTTTGGGGACCTCGACCAGAACCAGGATGGCTGCATCAGCAGGGAGGAGATGG  
TTTCTATTTCTGCGCTCCAGCTCTGTGTTGGGGGGCGCATGGGCTTCGTACACAACCTCCAGGAGAGCAACT  
CCTTGCGCCCCGTCGCTGCCGCACTGCAAAGCCCTGATCCTGGGCATCTACAAGCAGGGCCTCAAATGCCGAG  
CCTGTGGAGTGAAGTGCACAAAGCAGTGCAAGGATCGCCTGTGAGTTGAGTGTGCGGCGAGGGCCCAGAGTGTGA  
GCCTGGAGGGGTCTGCACCCCTACCCCTACCCATGCACAGCCACCATCACCGCGCCTTCAGCTTCTCTGCCCC  
GCCCTGGCAGGCGAGGCTCCAGGCCTCCAGAGATCCGTGAGGAGGAGGTACAGACGGTGGAGGATGGGGTGTGTTG  
ACATCCACTTGTAATAGATGCTGTGTTGGATCAAGGACTCATTCTGCCTTGGAGAAAATACTTCAACCAGAGC  
AGGGAGCCTGGGGGTGTGCGGGCAGGAGGCTGGGGATGGGGGTGGGATATGAGGGTGGCATGCAGCTGAGGGCAG  
GGCCAGGGCTGGTGTCCCTAAGGTTGTACAGACTCTTGTGAATATTTGTATTTCCAGATGGAATAAAAAGGCC  
GTGTAATTAACCTTCA

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**FIGURE 561**

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**FIGURE 562**

GCCTGTCCTGACACAATGTGGCTGGGTCCAGACATGAAGAGGTGCTACCGAGCACCTCAATCTACCTCAACTACG  
ACGTTAGCTTCTACCATGACGAGGACAGTACCTGCCACCACAAGAGCCCCGGGACCACCGTCCACAGATCCACC  
TACCAGAACCACAGCACAGAGACACCAAGCCTGACAGCTGCAGTCCCAAGCTCAGTTAGTGTCCCAGGGCTCCC  
AGCATCAGCCCGTCTACCTTAAGCCCTGCAACCAGCAACCACTCCAGCACTATGCAAAATGAAGACAGTAAGATG  
GGCTCAACAGTCACTGCCGCTGTTATCGGGATCATCGTGCCCATAGTGGTGATAGCCCTCCTGTGCATGAGTGGA  
TACCTGATCTGGAGAACTGGAAGCGGAAGAACACCAAAAGCATGAATTTTGACAACCCAGTCTACAGGAAAACA  
ACAGAAGAAGAAGACGAAGATGAGCTCCATATAGGGGAGAACTGCTCAGATTGGCCATGTCTATCCTGCAGCAATC  
AGCAGCTTTGATCGCCCACTGTGGGCAGAGCCCTGTCTTGGGGAGACCAGAGAACCGGAAGACCCAGCCCTGCC  
CTCAAGGAGCTTTTTGTCTTGCCGGGGGAACCAAGGTCACAGCTGCACCAACTCCCGAAGAACCCTCTTCCGAG  
CTGCCTGTCTGTCAAATCCAAGCGAGTGGCATTAAGCCTTGAAGATGATGGACTACCTGAGGATGGGATCACCCC  
CTTCGTGCCTCATGGAATTCAGTCCCATGCACTACACTCTGGATGGTGTATGACTGGATGAATGGGTTTCTATAT  
ATGGGTCTGTGTGAGTGTATGTGTGTGTGATTTTTTTTTTTAAATTTATGTTGCGGAAAGGTAACCACAAAGTT  
ATGATGAACTGCAAAACATCCAAAGGATGTGAGAGTTTTTCTATGTATAATGTTTTATACACTTTTTAACTGGTTG  
CACTACCCATGAGGAATTCGTGGAATGGCTACTGCTGACTAACATGATGCACATAACCAATGGGGGCCAATGGC  
ACAGTACCTTACTCATCATTTAAAACTATATTTACAGAAGATGTTTGGTTGCTGGGGGGGCTTTTTTTAGGTTT  
TGGGGCATTGTGTGTGTGTAATAAGATGATTATGCTTTGTGGCTATCCATCAACATAAGTAAAAAAAAAAAAAA  
AACACTTCAACTCCCTCCCCCATTTAGATTATTTATTAACATATTTTAAAAATCAGATGAGTTCTATAAATAATT  
TAGAGAAGTGAGAGTATTTATTTTGGCATGTTTGGCCCACCACACAGACTCTGTGTGTGTATGTGTGTGTTTAT  
ATGTGTATGTGTGTGACAGAAAAATCTGTAGAGAAGAGGCACATCTATGGCTACTGTTCAAATACATAAAGATAA  
ATTTATTTTACACAGTCCACAAGGGGTATATCTTGTAGTTTTTCAGAAAAGCCTTGGAAATCTGGATCAGAAAA  
TAGATACCATGGTTTGTGCAATTATGTAGTAAAAAAGGCAAATCTTTTACCTCTGGCTATTCTTGAGACCCAG  
GAAGTCAGGAAAAGCCTTTCAGCTCACCCATGGCTGCTGTGACTCCTACCAGGGCTTCTTGGCTTTGGCGAAGG  
TCAGTGTACAGACATTCCATGGTACCAGAGTGCTCAGAACTCAAGATAGGATATGCCTCACCTCAGCTACTCC  
TTGTTTTAAAGTTTCACTCTTTGAGTAACTTCTTCAATTTCTTTTCAAGGACACTTGGGTTGAATTCAGTAAGTTTC  
CTCTGAAGCACCTGAAGGGTGCCATCCTTACAGAGCTAAGTGGAGACGTTTCCAGATCAGCCCAAGTTTACTAT  
AGAGACTGGCCCAGGCACTGAATGTCTAGGACATGCTGTGGATGAAGATAAAGATGGTGGAATAGGTTTTATCAC  
ATCTCTTATTTCTCTTTTCCCTTACTCTCTACCATTTTCTTTTATGTGGGGAAACATTTTAAGGTAATAAATAGG  
TTACTTACCATCATATGTTTCATATAGATGAACTAATTTTTGGCTTAAGTCAGAACAACTGGCCAAAATTGAAGT  
CATATTTGAGGGGGGAAATGGCATAACGAATATTATATTATTTGGATATTTATGTTTACACAGGAATTTGGTTT  
ACTGCTTTGTAAATAAAAGGAAAACTCCGGGTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 563**

GGGAGGACCCCAATCTAGGCCCAAGAGGGAAAGGCCACGTGCCTGTATGAGCGTATGAGCATGTGCATGCGCGTG  
 TGTGCACAGGGTGGTGCACCTGGCAGGGGTCCTTGAGTGAGGCATGCCCCATTCTGTAGCAGGGAACCTGGA**ATG**

GGCTGTGTGTTCTGCAAGAAATTGGAGCCGGTGGCCACGGCCAAGGAGGATGCTGGCCTGGAAGGGGACTTCAGA  
 AGCTACGGGGCAGCAGACCACTATGGGCCTGACCCCACTAAGGCCCGCCTGCATCCTCATTGCCCACATCCCC  
 AACTACAGCAACTTCTCCTCTCAGGCCATCAACCCTGGCTTCCCTTGATAGTGGCACCATCAGGGGTGTGTCAGGG  
 ATTGGGGTGACCCTGTTTCATTGCCCTGTATGACTATGAGGCTCGAACTGAGGATGACCTCACCTTCACCAAGGGC  
 GAGAAGTTCACATCCTGAACAATACTGAAGGTGACTGGTGGGAGGCTCGGTCTCTCAGCTCCGGAAAACTGGC  
 TGCATTCCCAGCAACTACGTGGCCCCCTGTTGACTCAATCCAAGCTGAAGAGTGGTACTTTGGAAAGATTGGGAGA  
 AAGGATGCAGAGAGGCAGCTGCTTTACCAGGCAACCCCCAGGGGGCCTTTCTCATTCCGGAAAGCGAGACCACC  
 AAAGGTGCCTACTCCCTGTCCATCCGGGACTGGGATCAGACCAGAGGCGATCATGTGAAGCATTACAAGATCCGC  
 AAAGTGGACATGGGCGGCTACTACATCACCACACGGGTTCAAGTCAACTCGGTGCAGGAGCTGGTGCAGCACTAC  
 ATGGAGGTGAATGACGGGCTGTGCAACCTGCTCATCGCGCCCTGCACCATCATGAAGCCGCAGACGCTGGGCCTG  
 GCCAAGGACGCTGGGAGATCAGCCGCAGCTCCATCACGCTGGAGCGCCGGCTGGGCACCGGCTGCTTCGGGGAT  
 GTGTGGCTGGGCACGTGGAACGGCAGCACTAAGGTGGCGGTGAAGACGCTGAAGCCGGGCACCATGTCCCCGAAG  
 GCCTTCCTGGAGGAGGCGCAGGTCATGAAGCTGCTGCGGCACGACAAGCTGGTGCAGCTGTACGCCGTGGTGTGC  
 GAGGAGCCCATCTACATCGTGACCGAGTTCATGTGTACGGCAGCTTGCTGGATTTTCTCAAGAACCCAGAGGGC  
 CAGGATTTGAGGCTGCCCCAATTGGTGGACATGGCAGCCCAGGTAGCTGAGGGCATGGCCTACATGGAACGCATG  
 AACTACATTACCGCGACCTGAGGGCAGCCAACATCCTGGTTGGGGAGCGGCTGGCGTGAAGATCGCAGACTTT  
 GGCTTGGCGCTCTCATCAAGGACGATGAGTACAACCCCTGCCAAGGTTCCAAGTTCCTCATCAAGTGGACAGCC  
 CCAGAAGCTGCCCTCTTTGGCAGATTACCATCAAGTCAGACGTGTGGTCCTTTGGGATCCTGCTCACTGAGCTC  
 ATCACCAGGGCCGAATCCCTACCCAGGCATGAATAAACGGGAAGTGTGGAACAGGTGGAGCAGGGCTACCAC  
 ATGCCGTGCCCTCCAGGCTGCCAGCATCCCTGTACGAGGCCATGGAACAGACCTGGCGTCTGGACCCGGAGGAG  
 AGGCCTACCTTCGAGTACCTGCAGTCCTTCTGGAGGACTACTTCACCTCCGCTGAACCACAGTACCAGCCCGGG  
 GATCAGACATAGCCTGTCCGGGCATCAACCCTCTCTGGCGGTGGCCACCAGTCCTTGCCAATCCCCAGAGCTGTT  
 CTTCCAAAGCCCCCAGGCTGGCTTAGAACCCCATAGAGTCCTAGCATCACCGAGGACGTGGCTGCTCTGACACCA  
 CCTAGGGCAACCTACTTGTGTTTACAGATGGGGCAAAAGGAGGCCAGAGCTGATCTCTCATCCGCTCTGGCCCCA  
 AGCACTATTTCTTCCTTTTCCACTTAGGCCCTACATGCCTGTAGCCCTTTCTCACTCCATCCCCACCCAAAAGT  
 GCTCAGACCTTGTCTAGTTATTTATAAACTGTATGTACCTCCCTCACTTCTCTCCTATCACTGCTTTTCTACTCT  
 CCTTTTATCTCACTCTAGTCCAGGTGCCAAGAATTTCCCTTCTACCCTCTATTCTCTTGTGTCTGTAAGTTACAA  
 AGTCAGGAAAAGTCTTGGCTGGACCCCTTTTCTGCTGGGTGGATGCAGTGGTCCAGGACTGGGGTCTGGGGCCAG  
 GTTTGAGGGAGAAGTTTGCAGAGCACTTCCACCTCTCTGAATAGTGTGTATGTGTTGATTTATTGATTCTGTAA  
 ATAAGTAAATGACAATATGAATCCTCCA



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**FIGURE 564**

MGCVFCKKLEPVATAKEDAGLEGDFRSYGAADHYGPDPTKARPASSFAHIPNYSNFSSQAINPGFLDSGTIRGVS  
GIGVTLFIALYDYEARTEDDLTFTKGEKFHILNNTEGDWWEARSLSSGKTGCIPSNYVAPVDSIQAEEWYFGKIG  
RKDAERQLLSPGNPQGAFLIRESETTKGAYSLSIRDWDQTRGDHVKHYKIRKLDMGGYYITTRVQFNSVQELVQH  
YMEVNDGLCNLLIAPCTIMKPQTLGLAKDAWEISRSSITLERRLGTGCFGDVWLGTWNGSTKVAVKTLKPGTMSP  
KAFLEEAQVMKLLRHDKLVLQYAVVSEEPYIYIVTEFMCHGSLLDLFLKNPEGQDLRLPQLVDMAAQVAEGMAYMER  
MNYIHRDLRAANILVGERLACKIADFGLARLIKDEYNPCQGSKFPIKWTAPEAALFGRFTIKSDVWSFGILLTE  
LITKGRIPYPGMNKREVLEQVEQGYHMPCPPGCPASLYEAMEQTWRLDPEERPTFEYQLQSFLEDYFTSAEPQYQP  
GDQT

## FIGURE 565A

GCAGAGGAGTCGGGATCTGCGCTGCAGCCACCGCCGCGGTTGATACTACTTTGACCTTCCGAGTGCAGTGAGGC  
ATACATCACAATTTGGAATTATGCATTGGTTTATCAATTTACTTGTATTATTGTCACCCTGCTGCCAGATATGAC  
TTCATGAGGACAGTGATGTGTGTTCTGAAATTGTGAACCATGAGTCTAGTACTTAATGATCTGCTTATCTGCTGC  
CGTCAACTAGAACATGATAGAGCTACAGAACGAAAGAAAGAAGTTGAGAAATTTAAGCGCCTGATTCGAGATCCT  
GAAACAATTAACATCTAGATCGGCATTAGATTCCAAACAAGGAAAAATATTTGAATTGGGATGCTGTTTTTAGA  
TTTTTACAGAAATATATTAGAAAGAAACAGAATGTCTGAGAATAGCAAAACCAAATGTATCAGCCTCAACACAA  
GCCTCCAGGCAGAAAAAGATGCAGGAAATCAGTAGTTTGGTCAAATACTTCATCAAATGTGCAAACAGAAGAGCA  
CCTAGGCTAAAATGTCAAGAACTCTTAAATTATATCATGGATACAGTGAAAGATTCATCTAATGGTGCTATTTAC  
GGAGCTGATTGTAGCAACATACTACTCAAAGACATTCTTTCTGTGAGAAAATACTGGTGTGAAATATCTCAGCAA  
CAGTGGTTAGAATTGTTCTCTGTGTACTTCAGGCTCTATCTGAAACCTTCACAAGATGTTTCATAGAGTTTTAGTG  
GCTAGAATAATTCATGCTGTTACCAAAGGATGCTGTTCTCAGACTGACGGATTAAATCCAAATTTTGGACTTT  
TTTTCCAAGGCTATTCAGTGTGCGAGACAAGAAAAGAGCTCTTCAGGTCTAAATCATATCTTAGCAGCTCTTACT  
ATCTTCCTCAAGACTTTGGCTGTCAACTTTTCAATTTCAGTGTGTGAATTAGGAGATGAAATCTTCCCACTTTG  
CTTTATATTTGGACTCAACATAGGCTTAATGATTCTTTAAAAGAAGTCATTATTGAATTATTTCAACTGCAAATT  
TATATCCATCATCCGAAAGGAGCCAAAACCCAAAGAAAAGGTGCTTATGAATCAACAAAATGGAGAAGTATTTTA  
TACAACCTATATGATCTGCTAGTGAATGAGATAAGTCATATAGGAAGTAGAGGAAAGTATTCTTCAGGATTTCTG  
AATATTGCCGTCAAAGAAAATTTGATTGAATTGATGGCAGATATCTGTCAACCAGGTTTTTAATGAAGATACCAGA  
TCCTTGGAGATTTCTCAATCTTACACTACTACACAAAGAGAATCTAGTGATTACAGTGTCCCTTGCAAAAGGAAG  
AAATAGAACTAGGCTGGGAAGTAATAAAAGATCACCTTCAGAAGTCACAGAATGATTTTGATCTTGTGCCTTGG  
CTACAGATTGCAACCCAATTAATATCAAAGTATCCTGCAAGTTTACCTAACTGTGAGCTGTCTCCATTACTGATG  
ATACTATCTCAGCTTCTACCCCAACAGCGACATGGGGAACGTACACCATATGTGTTACGATGCCTTACGGAAGTT  
GCATTGTGTCAAGACAAGAGGTCAAACCTAGAAAGCTCACAAAAGTCAGATTTATTTAAACTCTGGAATAAAATT  
TGGTGTATTACCTTTCGTGGTATAAGTTCTGAGCAAATACAAGCTGAAAACCTTGGCTTACTTGGAGCCATAATT  
CAGGGTAGTTTAGTTGAGGTTGACAGAGAATTCTGGAAGTTATTTACTGGGTCAGCCTGCAGACCTTCATGTCCT  
GCAGTATGCTGTTTGACTTTGGCACTGACCACCAGTATAGTTCCAGGAGCGGTAAAAATGGGAATAGAGCAAAAT  
ATGTGTGAAGTAAATAGAAGCTTTTCTTTAAAGGAATCAATAATGAAATGGCTCTTATTCTATCAGTTAGAGGT  
GACTTAGAAAATAGCACAGAAGTGCCTCCAATTCTTCACAGTAATTTTCTCATCTTGTACTGGAGAAAATTCTT  
GTGAGTCTCACTATGAAAACTGTAAAGCTGCAATGAATTTTTTCCAAAGCGTGCCAGAATGTGAACACCACCAA  
AAAGATAAAGAAGAACTTTTCAATCTCAGAAGTAGAAGAATTTTCTTCAGACAACCTTTTGACAAGATGGACTTT  
TTAACCATTTGTGAGAGAAATGTGGTATAGAAAAGCACCAGTCCAGTATTGGCTTCTCTGTCCACCAGAATCTCAAG  
GAATCACTGGATCGCTGTCTTCTGGGATTATCAGAACAGCTTCTGAATAATTACTCATCTGAGATTACAAATTCA  
GAACTCTTGTCCGGTGTTCACGTCTTTTGGTGGGTGTCTTGGCTGCTACTGTTACATGGGTGTAATAGCTGAA  
GAGGAAGCATATAAGTCAGAATTATTCAGAAAGCCAACCTCTCTAATGCAATGTGCAGGAGAAAGTATCACTCTG  
TTTAAAAATAAGACAAATGAGGAATTCAGAATTGGTTCCTTGAGAAATATGATGCAGCTATGTACACGTTGCTTG  
AGCAACTGTACCAAGAAGAGTCCAAATAAGATTGCATCTGGCTTTTCTGCGATTGTTAACATCAAAGCTAATG  
AATGACATTGCAGATATTTGTAAGTTTAGCATCTTTCATCAAAAAGCCATTTGACCGTGGAGAAGTAGAATCA  
ATGGAAGATGATACTAATGGAAATCTAATGGAGGTGGAGGATCAGTCATCCATGAATCTATTTAACGATTACCCT  
GATAGTAGTGTAGTGATGCAAACGAACCTGGAGAGAGCCAAAGTACCATAGGTGCCATTAATCCTTTAGCTGAA  
GAATATCTGTCAAAGCAAGATCTACTTTTCTTAGACATGCTCAAGTTCTTGTGTTGTGTGTAACACTGCTCAG  
ACCAATACTGTGTCTTTAGGGCAGCTGATATTCGGAGGAAATTGTTAATGTTAATTGATTCTAGCACGCTAGAA  
CCTACCAAATCCCTCCACCTGCATATGTATCTAATGCTTTTAAAGGAGCTTCTTGAGAGAAGAGTACCCCTTGCCA  
ATGGAAGATGTTCTTGAACCTCTGAAACCACTATCCAATGTGTGTTCTTTGTATCGTTCGTGACCAAGATGTTTGT  
AAAATATTTTAAACCATGTCTTCATGTAGTGAAAAACCTAGGTCAAAGCAATATGGACTCTGAGAACACAAGG  
GATGCTCAAGGACAGTTTCTTACAGTAATTGGAGCATTTTGGCATCTAACAAAGGAGAGGAAATATATATTCTCT  
GTAAGAATGGCCCTAGTAAATTGCCTTAAACCTTGGCTTGGAGGCTGATCCTTATTCAAAATGGGCCATTCTTAAT  
GTAATGGGAAAAGACTTTCTGTAAATGAAGTATTTACACAATTTCTTGCTGACAATCATCACCAAGTTCGCATG  
TTGGCTGCAGAGTCAATCAATAGATTGTTCCAGGACACGAAGGGAGATTCTTCCAGGTTACTGAAAGCACTTCTT  
TTGAAGCTTCAGCAAACAGCTTTTGAAAATGCATACTTGAAAGCTCAGGAAGGAATGAGAGAAATGTCCCATAGT

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**FIGURE 565B**

GCTGAGAACCTGAACTTTGGATGAAATTTATAATAGAAAATCTGTTTTACTGACGTTGATAGCTGTGGTTTTA  
TCCTGTAGCCCTATCTGCGAAAAACAGGCTTTGTTTGCCCTGTGTAAATCTGTGAAAGAGAATGGATTAGAACCT  
CACCTTGTGAAAAAGGTTTTAGAGAAAGTTTCTGAAACTTTTGGATATAGACGTTTAGAAGACTTTATGGCATCT  
CATTTAGATTATCTGGTTTTTGGAAATGGCTAAATCTTCAAGATACTGAATACAACCTTATCTTCTTTTCTTTTATT  
TTATTAACTACACAAATATTGAGGATTTCTATAGATCTTGTTATAAGGTTTTGATTCCACATCTGGTGATTAGA  
AGTCATTTTGATGAGGTGAAGTCCATTGCTAATCAGATTCAAGAGGACTGGAAAAGTCTTCTAACAGACTGCTTT  
CCAAAGATTCTTGTAATATTCTTCTTATTTTGCCTATGAGGGTACCAGAGACAGTGGGATGGCACAGCAAAGA  
GAGACTGCTACCAAGGTCTATGATATGCTTAAAAGTGAAACTTATTGGGAAAACAGATTGATCACTTATTTCATT  
AGTAATTTACCAGAGATTGTGGTGGAGTTATTGATGACGTTACATGAGCCAGCAAATCTAGTGCCAGTCAGAGC  
ACTGACCTCTGTGACTTTTCAGGGGATTTGGATCCTGCTCCTAATCCACCTCATTTTCCATCGCATGTGATTAAA  
GCAACATTTGCCTATATCAGCAATTGTCATAAAACCAAGTTAAAAAGCATTTTAGAAAATCTTTCCAAAAGCCCT  
GATTCCTATCAGAAAATCTTCTTGCCATATGTGAGCAAGCAGCTGAAACAAATAATGTTTATAAGAAGCACAGA  
ATTCTTAAATATATCACCTGTTTGTAGTTTATTACTGAAAGATATAAAAAAGTGGCTTAGGAGGAGCTTGGGCC  
TTTGTCTTTCGAGACGTTATTTATACTTTGATTCACTATATCAACCAAAGGCCCTCTTGATCATGGATGTGTCA  
TTACGTAGCTTCTCCCTTTGTTGTGACTTATTAAGTCAGGTTTGCCAGACAGCCGTGACTTACTGTAAGGATGCT  
CTAGAAAACCATCTTCATGTTATTGTTGGTACACTTATACCCCTTGTTGTATGAGCAGGTGGAGGTTTCAGAAACAG  
GTATTGGACTTGTGAAATACTTAGTGATAGATAACAAGGATAATGAAAACCTCTATATCACGATTAAGCTTTTA  
GATCCTTTTCTGACCATGTTGTTTTTAAGGATTTGCGTATTACTCAGCAAAAAATCAAATACAGTAGAGGACCC  
TTTTCACTCTTGAGAGAAATTAACCATTTTCTCTCAGTAAGTGTTTATGATGCACTTCCATTGACAAGACTTGAA  
GGACTAAAGGATCTTCGAAGACAACCTGGAACCTACATAAAGATCAGATGGTGGACATTATGAGAGCTTCTCAGGAT  
AATCCGCAAGATGGGATTATGGTGAAACTAGTTGTCAATTTGTTGCAGTTATCCAAGATGGCAATAAACCACACT  
GGTGA AAAAGAAGTTCTAGAGGCTGTTGGAAGCTGCTTGGGAGAAGTGGGTCTATAGATTTCTCTACCATAGCT  
ATACAACATAGTAAAGATGCATCTTATACCAAGGCCCTTAAGTTATTTGAAGATAAAGAACTTCAGTGACCTTC  
ATAATGCTGACCTACCTGAATAACACACTGGTAGAAGATTGTGTCAAAGTTCGATCAGCAGCTGTTACCTGTTTG  
AAAAACATTTTAGCCACAAAGACTGGACATAGTTTCTGGGAGATTTATAAGATGACAACAGATCCAATGCTGGCC  
TATCTACAGCCTTTTAGAACATCAAGAAAAAAGTTTTTAGAAGTACCCAGATTTGACAAAGAAAACCTTTTGAA  
GGCCTGGATGATATAAATCTGTGGATTCTCTAAGTGAAAATCATGACATTTGGATAAAGACACTGACTTGTGCT  
TTTTTGGACAGTGGAGGCACAAAATGTGAAATCTTCAATTATTAAGCCAATGTGTGAAGTGAAAACCTGACTTT  
TGTCAGACTGTACTTCCATACTTGATTCATGATATTTTACTCCAAGATACAAATGAATCATGGAGAAATCTGCTT  
TCTACACATGTTACGGGATTTTACCAGCTGTCTTCGACACTTCTCGCAAACGAGCCGATCCACAACCCCTGCA  
AAGTTGGATTTCAGAGTCAGAGCACTTTTCCGATGCTGTTTGGATAAAAAATCACAAAGAACAATGCTTGCTGTT  
GTGGACTACATGAGAAGACAAAAGAGACCTTCTTCAGGAACAATTTTTAATGATGCTTTCTGGCTGGATTTAAAT  
TATCTAGAAGTTGCCAAGGTAGCTCAGTCTTGCTGCTCACTTTACAGCTTTACTCTATGCAGAAATCTATGCA  
GATAAGAAAAGTATGGATGATCAAGAGAAAAGAAGTCTTGCAATTTGAAGAAGGAAGCCAGAGTACAACATTTCT  
AGCTTGAGTGAAAAAGTAAAGAAGAACTGGAATAAGTTTACAGGATCTTCTCTTAGAAATCTACAGAAGTATA  
GGGGAGCCAGATAGTTTGTATGGCTGTGGTGGAGGGAAGATGTTACAACCCATTACTAGACTACGAACATATGAA  
CACGAAGCAATGTGGGGCAAAGCCCTAGTAACATATGACCTCGAAACAGCAATCCCCTCATCAACACGCCAGGCA  
GGAATCATTACAGGCCTTGCGAATTTGGGACTCTGCCATATTCTTTCCGTCTATTTAAAGGATTGGATTATGAA  
AATAAAGACTGGTGTCTGAAC TAGAAGAACTTCATTACCAAGCAGCATGGAGGAATATGCAGTGGGACCATTGC  
ACTTCCGTGAGCAAAGAAGTAGAAGGAACCACTTACCATGAATCATTGTACAATGCTCTACAATCTCTAAGAGAC  
AGAGAATTCTCTACATTTTATGAAAGTCTCAAATATGCCAGAGTAAAAGAAGTGGAAGAGATGTGTAAGCGCAGC  
CTTGAGTCTGTGATTTCGCTCTATCCACACTTAGCAGGTTGCAGGCCATTGGAGAGCTGGAAAGCATTGGGGAG  
CTTTTCTCAAGATCAGTCACACATAGACAACCTCTCTGAAGTATATATTAAGTGGCAGAAACACTCCCAGCTTCTC  
AAGGACAGTGATTTTAGTTTTAGGAGCCTATCATGGCTCTACGCACAGTCATTTTGGAGATCCTGATGGAAAAG  
GAAATGGACAACCTACAAAGAGAATGTATTAAGGACATTCTCACCAAACACCTTGTAAGACTCTCTATACTGGCC  
AGAATTTTCAAGAACACTCAGCTCCCTGAAAGGGCAATATTTCAAATTAACAGTACAATTCAGTTAGCTGTGGA  
GTCTCTGAGTGGCAGCTGGAAGAAGCACAAGTATTCTGGGCAAAAAAGGAGCAGAGTCTTGCCCTGAGTATTCTC  
AAGCAAATGATCAAGAAGTTGGATGCCAGCTGTGCAGCGAACAATCCCAGCCTAAAACTTACATACACAGAATGT

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**FIGURE 565C**

CTGAGGGTTTGTGGCAACTGGTTAGCAGAAACGTGCTTAGAAAAATCCTGCGGTCATCATGCAGACCTATCTAGAA  
AAGGCAGTAGAAGTTGCTGGAAATTATGATGGAGAAAGTAGTGATGAGCTAAGAAATGGAAAAATGAAGGCATTT  
CTCTCATTAGCCCGGTTTTTCAGATACTCAATACCAAAGAATTGAAAACTACATGAAATCATCGGAATTTGAAAAC  
AAGCAAGCTCTCCTGAAAAGAGCCAAAGAGGAAGTAGGTCTCCTTAGGGAACATAAAATTCAGACAAACAGATAC  
ACAGTAAAGGTTTCAGCGAGAGCTGGAGTTGGATGAATTAGCCCTGCGTGCCTGAAAGAGGATCGTAAACGCTTC  
TTATGTAAAGCAGTTGAAAATTATATCAACTGCTTATTAAGTGGAGAAGAACATGATATGTGGGTATTCCGGCTT  
TGTTCCCTCTGGCTTGAAAATTCTGGAGTTTCTGAAGTCAATGGCATGATGAAGAGAGACGGAATGAAGATTCCA  
ACATATAAAATTTTTGCCTCTTATGTACCAATTGGCTGCTAGAATGGGGACCAAGATGATGGGAGGCCTAGGATTT  
CATGAAGTCCTCAATAATCTAATCTCTAGAATTTCAATGGATCACCCCATCACACTTTGTTTATTATACTGGCC  
TTAGCAAAATGCAAACAGAGATGAATTTCTGACTAAACCAGAGGTAGCCAGAAGAAGCAGAATAACTAAAAATGTG  
CCTAAACAAAGCTCTCAGCTTGATGAGGATCGAACAGAGGCTGCAAATAGAATAATATGTACTATCAGAAGTAGG  
AGACCTCAGATGGTCAGAAGTGTTGAGGCACTTTGTGATGCTTATATTATATTAGCAAACCTTAGATGCCACTCAG  
TGGAAGACTCAGAGAAAAGGCATAAATATTCCAGCAGACCAGCCAATTACTAAACTTAAGAATTTAGAAGATGTT  
GTTGTCCCTACTATGGAAATTAAGGTGGACCACACAGGAGAATATGGAAATCTGGTGACTATACAGTCATTTAAA  
GCAGAAATTCGCTTAGCAGGAGGTGTAAATTTACCAAAAAATAATAGATTGTGTAGGTTCCGATGGCAAGGAGAGG  
AGACAGCTTGTTAAGGGCCGTTGATGACCTGAGACAAGATGCTGTGCAACAGGTCTTCAGATGTGTAATACA  
TTACTGCAGAGAAACACGGAACTAGGAAGAGGAAATTAACCTATCTGTACTTATAAGGTGGTTCCCCCTCTCTCAG  
CGAAGTGGTGTTCTTGAATGGTGACAGGAAGTGTCCCATTTGGTGAATTTCTTGTTAACAATGAAGATGGTGCT  
CATAAAAGATACAGGCCAAATGATTTTCAGTGCCTTTCAGTGCCAAAAGAAAATGATGGAGGTGCAAAAAAAGTCT  
TTTGAAGAGAAATATGAAGTCTTCATGGATGTTTGCCAAAATTTTCAACCAGTTTTCCGTTACTTCTGTCATGGAA  
AAATTTCTGGATCCAGCTATTTGGTTTGAGAAGCGATTGGCTTATACGCGCAGTGTAGCTACTTCTTCTATTGTT  
GGTTACATACTTGGACTTGGTGATAGACATGTACAGAATATCTTGATAAATGAGCAGTCAGCAGAACTGTACAT  
ATAGATCTAGGTGTTGCTTTTGAACAGGGCAAAATCCTTCCTACTCCTGAGACAGTTTCCTTTTAGACTCACCAGA  
GATATTGTGGATGGCATGGGCATTACGGGTGTTGAAGGTGTCTTCAGAAGATGCTGTGAGAAAACCATGGAAGTG  
ATGAGAACTCTCAGGAACTCTGTAAACCATTGTAGAGGTCCTTCTATATGATCCACTCTTTGACTGGACCATG  
AATCCTTTGAAAGCTTTGTATTTACAGCAGAGGCCGGAAGATGAACTGAGCTTCACCCTACTCTGAATGCAGAT  
GACCAAGAATGCAAACGAAATCTCAGTGATATTGACCAGAGTTTCAACAAAGTAGCTGAACGTGTCTTAATGAGA  
CTACAAGAGAACTGAAAGGAGTGGAAGAAGGCACTGTGCTCAGTGTGGTGACAAGTGAATTTGCTCATAACAG  
CAGGCCATAGACCCCAAAAATCTCAGCCGACTTTTCCCAGGATGGAAAGCTTGGGTGTGATCTTCAGTATATGAA  
TTACCCTTTCATTTCAGCCTTTAGAAATTATATTTTAGCCTTTATTTTTAACCTGCCAACATACTTTAAGTAGGGA  
TTAATATTTAAGTGAACCTATTGTGGGTTTTTTTGAATGTTGGTTTTTAATACTTGATTTAATCACCCTCAAAAAAT  
GTTTTGATGGTCTTAAGGAACATCTCTGCTTTCACTCTTTAGAAATAATGGTCAATTCGGGCTGGGCGCAGCGGCT  
CACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGTGAGCGGATCACAAGGTCAGGAGTTTCGAGACCAGCCTGGC  
CAAGAGACCAGCCTGGCCAGTATGGTGAAACCTGTCTCTACTAAAAATACAAAAATTAGCCGAGCATGGTGCCG  
GGCACCTGTAGTCCCAGCTACTCGAGAGGCTGAGGCAGGAGAATCTCTTGAACCTGGGAGGTGAAGGTTGCTGTG  
GGCAAAATCATGCCATTGCACTCCAGCCTGGGTGACAAGAGCGAACTCCATCTCAAAAA

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**FIGURE 566**

MTLHEPANSSASQSTDLCDFSGDLD PAPNPPHFP SHVIKATFAYISNCHKTKLKSILEILSKSPDSYQKILLAI  
EQAAETNNVYKKHRILKIYHLFVSLLLKDIKSGLGGAFAVLRDVIYTLIHYINQRPSCIMDVSLRSFSLCCDLL  
SQVCQTAVTYCKDALENHLHVIVGTLIPLVYEQVEVQKQVLDLLKYLVIDNKNENLYITIKLLDPFPDHVVKD  
LRITQQKIKYSRGPFSLEEINHFSLSVSYDALPLTRLEGLKDLRRQLELHKDQMVDIMRASQDNPQDGIMVKLV  
VNLLQLSKMAINHTGEKEVLEAVGSCLEGEVGPIDFSTIAIQHSDASYTKALKLFEDKELQWTFIMLTYNNTLV  
EDCVKVRSAAVTCLKNILATKTGHSFWEIYKMTTDPMLAYLQPFRTSRKKFLEVPRFDKENPFEGGLDDINLWIPL  
SENHDIWIKTLTCAFLDSGGTKCEILQLLKPMCEVKTDFCQTVLPYLIHDILLQDTNESWRNLLSTHVQGFFTSC  
LRHFSQTSRSTTPANLDSESEHFFRCCLDKKSQRTMLAVVDYMRQKRPSSGTIFNDAFWLDLNYLEVAKVAQSC  
AAHFTALLYAEIYADKKSMDDQEKRSFAFEESQSTTISSSLSEKSKEETGISLQDLLLEIYRSIGEPDSLYGCGG  
GKMLQPITRLRTYEHEAMWGKALVTYDLETAIPSSTRQAGIIQALQNLGLCHILSVYKGLDYENKDWCEPELEEL  
HYQAAWRNMQWDHCTSVSKEVEGTSYHESLYNALQSLRDEFSTFYESLKYARVKEVEEMCKRSLESVYSLYPTL  
SRLQAIGELESIGELFSRSVTHRQLSEVYIKWQKHSQLLKDSDFSQEPIMALRTVILEILMEKEMDNSQRECIK  
DILTKHLVELSILARTFKNTQLPERAIFQIKQYNSVSCGVSEWQLEEAQVFWAKKEQSLALSILKQMIKKLDASC  
AANNPSLKLTYTECLRVCGNWLAEETCLENPAVIMQTYLEKAVEVAGNYDGESSDELNRNGMKAFSLARFSDTQY  
QRIENYMKSSSEFENKQALLKRAKEEVGLLREHKIQTNRYTVKVQRELELDELALRALKEDRKRFLCKAVENYINC  
LLSGEEHDMWVFRCLCSLWLENSGVSEVNGMMKRDGMKIPTYKFLPLMYQLAARMGTMMGGGLGFHEVLNNLISRI  
SMDHPHHTLFIILALANANRDEFLTKPEVARRSRITKNVPKQSSQLDEDRTAANRIICTIRSRRPQMVRSEAL  
CDAYIILANLDATQWKTQRKGINIPADQPIITKLKNLEDVVVPTMEIKVDHTGEYGNLVTIQSFKAEFRLAGGVNL  
PKIIDCVGSDGKERRQLVKGRDDLQDAVMQVQFQMCNTLLQRNTETTRKRLTICTYKVVP LSQRSGVLEWCTGT  
VPIGEFLVNNEGDGAHKRYRPNDFSQFCQKKMMEVQKKSFEKYEVEFMDVCQNFQPVFRYFCMEKFLDPAIWF  
RLAYTRSVATSSIVGYILGLGDRHVQNILINEQSAELVHIDLGVAFEQGGKILPTPETVPFRLTRDIVDGMGITGV  
EGVFRRCCEKTMEVMRNSQETLLTIVEVLLYDPLFDWTMNP LKALYLQQRPEDETELHPTLNADDQECKRNLSDI  
DQSFNKVAERVLMLRQEKLGVEEGTVLSVGGQVNLLIQQAIDPKNLSRLFPGWKAWV

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**FIGURE 567**

CGCGCCTCGGGCGGTACCCAGCCAGTCCCCAGCGCCGCGCTACCGCGCTGACCGGCCCTCCAGACGCCTCCCGGT  
ACCCGGGACCCAGCCCGGCCGCTCGCCCGCAGCCCGCGGCCGCACACGTCCCGGAGCCGGGCCTAGGGCGGG  
CGGCAGCGGGCGGCTCGGCGCAGTCAGGCTGGGCTCTGTAGCGTCCCC**ATGG**CCGCGGCCGGCTGGCGGGACGGCT  
CCGGCCAGGAGAAGTACCGGCTCGTGGTGGTTCGGCGGGGGCGGCGTGGGCAAGTCGGCGCTCACCATCCAGTTCA  
TCCAGTCCTATTTTGTAAACGGATTATGATCCAACCATTGAAGATTCTTACACAAAGCAGTGTGTGATAGATGACA  
GAGCAGCCCGGCTAGATATTTTGGATACAGCAGGACAAGAAGAGTTTGGAGCCATGAGAGAACAGTATATGAGGA  
CTGGCGAAGGCTTCCTGTTGGTCTTTTCAGTCACAGATAGAGGCAGTTTGAAGAAATCTATAAGTTTCAAAGAC  
AGATTCTCAGAGTAAAGGATCGTGATGAGTTCCCAATGATTTTAATTGGTAATAAAGCAGATCTGGATCATCAA  
GACAGGTAACACAGGAAGAAGGACAACAGTTAGCACGGCAGCTTAAGGTAACATACATGGAGGCATCAGCAAAGA  
TTAGGATGAATGTAGATCAAGCTTTCCATGAACCTTGTCGGGTTATCAGGAAATTTCAAGAGCAGGAATGTCCTC  
CTTACCAGAACCAACACGGAAAGAAAAAGACAAGAAAGGCTGCCATTGTGTCATTTT**CAGA**ATCCCTTCAGTT  
TTAGCTACCAACGGCCAGGAAAAGCCCTCATCTTCTCTTCTCTCCTCAGTTTACATCTTGTTGGTACCTTTCTA  
GCCTTAGACAAATGATCACCATGTTAGCCTTAGACCAAGAAGCTGGCTAGTCCTTTCTGTGAAGCTAATACAATG  
GTCATTTCCAGACAAATTTAAAGGAAACACTAAGGCTGCTTCAAAGATTATCTGATTCTTTAAATATATGTCT  
ATATACACAGACATGCTCTTTTTTTAAGTGCTTACATTTTAATAGAGATGAATCAGTTTTGGAATCTAAGCTGTT  
TGCCAAGCTGAAGCTACAGGTTGTGAAATAATTTTTAACTTTTTGGAATCATACTGCCTACTGTTACTCTAAATAG  
AAATATAGGGTTTTTTTTAATGTGAATTTTTGCCTATCTTTAAACATTTCAATGTCAGCCTTTGTAAACCTTAAA  
TACACTGAATTGAATCTACAAAAGTGAACCATCTCAGACCTTTACTGATACTACAACTTTTGTTTTCTGATGGCC  
AAAATACCAAATGCCTGTTGTATTTATGGATTAAAAACTGCTTATAAAAAAAAAAAAAA

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**FIGURE 568**

MAAAGWRDGSQGEKYRLVVGGGGVGKSALTIQFIQSYFVTDYDPTIEDSYTKQCVIDDRAARLDILDTAGQEEF  
GAMREQYMRTGEGFLLVFSVTDGRSFEEIYKFQRQILRVKDRDEFPMILIGNKADLDHQRQVTQEEGQQLARQLK  
VTYPEASAKIRMNVDQAFHELVIRVIRKFQEQECPPSPEPTRKEKDKKGCHCVIF

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**FIGURE 569**

AAAATGTGCTTCTTACAGGAATATAAATAGTTTCTGGAAAGGACACTGACAACTTCAAAGCAAAATGAAGTTCTT  
TCTGTTGCTTTTCACCATTTGGGTTCTGCTGGGCTCAGTATTCCCCAAATACACAACAAGGACGGACATCTATTGT  
TCATCTGTTTGAATGGCGATGGGTTGATATTGCTCTTGAATGTGAGCGATATTTAGCTCCGAAGGGATTTGGAGG  
GGTTCAGGTCTCTCCACCAAATGAAAATGTTGCAATTTACAACCCTTTCAGACCTTGGTGGGAAAGATACCAACC  
AGTTAGCTATAAATTATGCACAAGATCTGGAAATGAAGATGAATTTAGAAACATGGTGAAGTAGATGTAACAATGT  
TGGGGTTTCGTATTTATGTGGATGCTGTAATTAATCATATGTGTGGTAACGCTGTGAGTGCAGGAACAAGCAGTAC  
CTGTGGAAGTTACTTCAACCCTGGAAGTAGGGACTTTCCAGCAGTCCCATATTCTGGATGGGATTTCAATGATGG  
TAAATGTAAACTGGAAGTGGAGATATCGAGAACTACAATGATGCTACTCAGGTCAGAGATTGTCGTCTGACTGG  
TCTTCTTGATCTTGCACTGGAGAAGGATTACGTGCGTTCTAAGATTGCCGAATATATGAACCATCTCATTGACAT  
TGGTGTTCAGGGTTCAGACTTGATGCTTCCAAGCACATGTGGCCTGGAGACATAAAGGCAATTTTGGACAACT  
GCATAATCTAAACAGTAACCTGGTTCCTGCAGGAAGTAAACCTTTCATTACCAGGAGGTAATTGATCTGGGTGG  
TGAGCCAATTAAGCAGTGACTACTTTGGTAATGGCCGGGTGACAGAATTCAAGTATGGTGCAAAACCTCGGCAC  
AGTTATTCGCAAGTGGAAATGGAGAGAAGATGTCTTACTTAAAGAACTGGGGAGAAGGTTGGGGTTTCGTACCTTC  
TGACAGAGCGCTTGTCTTTGTGGATAACCATGACAATCAACGAGGACATGGGGCTGGAGGAGCCTCTATTCTTAC  
CTTCTGGGATGCTAGGCTGTACAAAATGGCAGTTGGATTTATGCTTGCTCATCCTTACGGATTTACACGAGTAAT  
GTCAAGCTACCGTTGGCCAAGACAGTTTCAAATGGAAACGATGTTAATGATTGGGTGGGCCACCAAATAATAA  
TGGAGTAATTAAGAAAGTTACTATTAATCCAGACACTACTTGTGGCAATGACTGGGTCTGTGAACATCGATGGCG  
CCAAATAAGGAACATGGTTATTTCCGCAATGTAGTGGATGGCCAGCCTTTTACAAATTGGTATGATAATGGGAG  
CAACCAAGTGGCTTTTGGGAGAGGAAACAGAGGATTCATTGTTTTCAACAATGATGACTGGTCATTTTCTTTAAC  
TTTGCAAACCTGGTCTTCCTGCTGGCACATACTGTGATGTCATTTCTGGAGATAAAATTAATGGCAATTGCACAGG  
CATTAAATTTACGTTTCTGATGATGGCAAAGCTCATTTTCTATTAGTAACCTCTGCTGAAGATCCATTTATTGC  
AATTCATGCTGAATCTAAATTGTAATTTTAAATTAATGCATGTCTCTCAAACAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAA



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**FIGURE 570**

MKFFLLLFTIGFCWAQYSPNTQQGRTSIVHLFEWRWVDIALECERYLAPKGFGGVQVSPPNENVAIYNPFRPWWE  
RYQPVSYKLCTRSGNEDEFNMVTRCANNVGVRIYVDAVINHMCNAVSAGTSSTCGSYFNPGSRDFPAVPYSGWD  
FNDGKCKTGSGDIENYNDATQVRDCRLTGLLDLALEKDYVRSKIAEYMNHLIDIGVAGFRLDASKHMWPGDIKAI  
LDKLHNLNSNWFPAGSKPFIYQEVIDLGGEPIKSSDYFGNGRVTEFKYGAKLGTVIRKWNGEKMSYLNWGEWG  
FVPSDRALVFVDNHDNQRGHGAGGASILTFWDARLYKMAVGFMALHPYGFTRVMSSYRWPRQFQNGNDVNDWVGP  
PNNNGVIKEVTINPDITTCGNDWVCEHRWRQIRNMVIFRNVVDGQPFTNWDNGSNQVAFGRGNRGFIVFNDDWS  
FSLTLQTGLPAGTYCDVISGDKINGNCTGIKIYVSDDGKAHFSISNSAEDPFIAIHAESKL

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**FIGURE 571A**

TCTAGATGGGGTCTTGGGCCCCAGGGTGTGCAGCCACTGACTTGGGGACTGCTGGTGGGGTAGGGATGAGGGAG  
GGAGGGGCATTGTGATGTACAGGGCTGCTCTGTGAGATCAAGGGTCTCTTAAGGGTGGGAGCTGGGGCAGGGACT  
ACGAGAGCAGCCAGATGGGCTGAAAGTGGAACCTCAAGGGGTTTCTGGCACCTACCTACCTGCTTCCCGCTGGGGG  
GTGGGGAGTTGGCCAGAGTCTTAAGATTGGGGCAGGGTGGAGAGGTGGGCTCTTCTGCTTCCCACTCATCTTA  
TAGCTTTCTTTCCCCAGATCCGAATTCGAGATCCAAACCAAGGAGGAAAGGATATCACAGAGGAGATCATGTCTG  
GGGCCCCGACTGCCTCCACACCCACCCCTCCCCAGACGGGAGGCAGTCTGGAGCCTCAAGCTAATGGGGAGACGC  
CCCAGGTTGCTGTCAATTGTCCGGCCAGATGACCGGTACAGGGAGCAATCATTTGCTGACCGGCCAGGGCTGCCTG  
GCCCAGAGCATAGCCCTTCAGAATCCCAGCCTTCGTGCGCTTCTCCGACCCCATCACCATCCCCAGTCTTGGAAC  
CGGGGTCTGAGCCTAATCTCGCAGTCTCTCTATTCTTGGGGACACTATGACAACTATACAAATGTCTGTAGAAG  
AATCAACCCCCATCTCCCGTGAACTGGGGAGCCATATCGCCTCTCTCCAGAACCCACTCCTCTCGCCGAACCCA  
TACTGGAAGTAGAAGTGACACTTAGCAAACCGGTTCCAGAATCTGAGTTTCTTCCAGTCTCTCCAGGCTCCCA  
CCCCTTTGGCATCTCACACAGTGGAAATTCATGAGCCTAATGGCATGGTCCCATCTGAAGATCTGGAACCAGAGG  
TGGAGTCAAGCCCAGAGCTTGCTCCTCCCCAGCTTGCCCCCTCCGAATCCCCTGTGCCCATTGCTCCAACCTGCC  
AACCTGAGGAACTGCTCAACGGAGCCCCCTCGCCACCAGCTGTGGACTTAAGCCCAGTCAGTGAGCCAGAGGAGC  
AGGCCAAGGAGGTGACAGCATCAGTGGCGCCCCCACCATCCCCCTCTGCTACTCCAGCTACGGCTCCTTCAGCTA  
CTTCCCCAGCTCAGGAGGAGGAAATGGAAGAAGAAGAAGATGAGGAAGAAGGAGAAGTAGGGGAAGCAGGGGAAG  
GTGAGAGTGAGAAGAGAGGAGAGGAACTGCTCCCCCAGAGAGTACCCCTATTCCAGCCAACCTTGCTCTCAGAATT  
TGGAGGCAGCAGCAGCCACTCAAGTGGCAGTATCTGTGCCAAAGAGGAGACGGAAAATTAAGGAGCTAAATAAGA  
AGGAGGCTGTTGGAGACCTTCTGGATGCCTTCAAGGAGGCGAACCCGGCAGTACCAGAGGTGGAAAATCAGCCTC  
CTGCAGGCAGCAATCCAGGCCCAGAGTCTGAGGGCAGTGGTGTGCCCCACGTCTGAGGAAGCAGATGAGACCT  
GGGACTCAAAGGAAGACAAAATTCACAATGCTGAGAACATCCAGCCCCGGGAACAGAAGTATGAATATAAGTCAG  
ATCAGTGAAGCCTCCAAACCTAGAGGAGAAAAACGTTACGACCGTGAGTTCCTGCTTGTTTTAGTTTCATCT  
TTTGCCAGATGCAGAAGCCAGAGGGATTGCCACATATCAGTGACGTGGTGTGACAAGGCCAATAAAACACCAC  
TGCGGCCACTGGATCCCCTAGACTACAAGGCATAAATTGTGGCCCAGACTTCACTCCATCCTTTGCCAACCTTG  
GCCGACAACCCCTTAGCACCCGTGGGCCCCCAAGGGGTGGGCCAGGTGGGGAGCTCGCCCGTGGCGCGCAGGCTG  
GCCTGGGACCCCCGGCGCTCTCAGCAGGGACCCCCGAAAAGAACCACGCAAGATCATTGCCACAGTGTTAATGACCG  
AAGATATAAACTGAACAAAGCAGAGAAAGCCTGGAACCCAGCAGCAAGCGGACAGCGGCTGATAAGGATCGAG  
GGGAAGAAGATGCTGATGGCAGCAAAACCCAGGACCTATTCCGCAGGTGGCGCTCCATCCTGAATAAACTGACAC  
CCCAGATGTTCCAGCAGCTGATGAAGCAAGTGACGAGCTGGCCATCGACACCGAGGACGCCTCAAAGGGGTCAT  
TGACCTCATTTTTGAGAAGGCCATTTAGAGCCCAACTTCTCTGTGGCCTATCCAACATGTGCCGCTGCCTCATG  
GCGCTGAAAGTGCCCACTACGGAAGCCAACAGTGACTGTGAACTTCCGAAAGCTGTTGTTGAATCGATGTCAGA  
AGGAGTTTGAGAAAGACAAAGATGATGATGAGGTTTTTGAGAAGAAGCAAAAAGAGATGGATGAAGCTGCTACGG  
CAGAGGAACGAGAACGCCTGAAGGAGGAGCTGGAAGAGGCTCGGGACATAGCCCGGCGCTGCTCTTTAGGGAATA  
TCAAGTTTATTGGAGAGTTGTTCAAACCTGAAGATGTTAACAGAGGCAATAATGCATGACTGTGTGGTCAAACCTGC  
TTAAGAACCATGATGAAGAGTCCCTTGAGTGCTTTGTGCTGTGCTCACCACCATTTGGCAAAGACCTGGACTTTG  
AAAAAGCCAAGCCCCGAATGGATCAGTATTTCAACCAGATGGAAAAAATCATTAAAGAAAAGAAGACGTCATCCC  
GCATCCGCTTTATGCTGCAGGACGTGCTGGATCTGCGAGGGAGCAATTGGGTGCCACGCCGAGGGGATCAGGGTC  
CAAGACCATTGACCAGATCCATAAGGAGGCTGAGATGGAAGACATCGAGAGCACATCAAAGTGCAGCAGCTCATG  
CAAGGGCAGTGACAAGCGTCGGGGCGGTCTCCAGGCCCTCCCATCAGCCGTGGACTTCCCCTTGTTGGATGATGG  
TGGCTGACACAGTTCCCATCAGCAAAGGTAGCCGCCCATTTGACACCTCACGACTACCAAGATCACCAAGCCTG  
GCTCCATCGATTCTAACAACAGCTCTTTGCACCTGGAGGGCGACTGAGCTGGGGCAAGGGCAGCAGCGGAGGGT  
CAGGAGCCCAGCCCTCAGACGCAGCATCAGAAGCTGCTCGCCCAGCTACTAGTACTTTGATTGCTTCTCAGCCC  
TTCAACAAGCGGTACCCACAGAAAGCACAGATAATAGACGTGTGGTGCAGAGGAGTAGCTTGAGCCGAGAACGAG  
GCGAGAAAGCTGGAGACCGAGGAGACCGCCTAGAGCGAGTGAACGGGGAGGGGACCGTGGGGACCGGCTTGATCG  
TGTGCGGGACACCTGCTACCAAGCGGACGTTTCAAGGAAGTGGAGGAGCGGAGTAGAGAACGGCCCTCCCAGC  
CTGAGGGGGCTGCGCAAGGCAGCTAGCCTCACGGAGGATCGGGACCGTGGGCGGGATGCCGTGAAGCGAGAAGCTG  
CCCTACCCCCAGTGAGCCCCCTGAAGGCGGCTCTCTCTGAGGAGGAGTTAGAGAAGAAATCCAAGGCTATCATTG  
AGGAATATCTCCATCTCAATGACATGAAAGAGGCAGTCCAGTGCCTGCAGGAGCTGGCCTCACCCCTCCTTGCTCT

**FIGURE 571B**

TCATCTTTGTACGGCATGGTGTGCGAGTCTACGCTGGAGCGCAGTGCCATTGCTCGTGAGCATATGGGGCAGCTGC  
TGCAACCAGCTGCTCTGTGCTGGGCATCTGTCTACTGCTCAGTACTACCAAGGGTTGTATGAAATCTTGGAATTGG  
CTGAGGACATGGAAATTGACATCCCCACGTGTGGCTCTACCTAGCGGAACTGGTAACACCCATTCTGCAGGAAG  
GTGGGGTGCCCATGGGGGAGCTGTTTCAGGGAGATTACAAAGCCTCTGAGACCGTTGGGGCAAAGCTGCTTCCCTGT  
TGCTGGAGATCCTGGGCCTCCTGTGCAAAAGCATGGGTCCATAAAAAGGTGGGGACGCTGTGGCGAGAAGCCGGGC  
TTAGCTGGAAGGAATTTCTACCTGAAGGCCAGGACATTGGTGCATTTCGTCGCTGAACAGAAGGTGGAGTATACCC  
TGGGAGAGGAGTCGGAAGCCCCCTGGCCAGAGGGCACTCCCCCTCCGAGGAGCTGAACAGGCAGCTGGAGAAGCTGC  
TGAAGGAGGGCAGCAGTAACCAGCGGGTGTTCGACTGGATAGAGGCCAACCTGAGTGAGCAGATAGTATCCAACA  
CGTTAGTTCGAGCCCTCATGACGGCTGTCTGCTATTCTGCAATTATTTTGTAGACTCCCCCTCCGAGTGGACGTTG  
CAGTGCTGAAAGGCGACATAGTGTGTCAGAAATACCTGTGTGACGAAGCAGAAGGAGCTACAGGCGCTCTACGCC  
TCCAGGCCCTTGTAGTGACCTTAGAACAGCCTCCCAACCTGCTGCGGATGTTCTTTGACGCACTGTATGACGAGG  
ACGTGGTGAAGGAGGATGCCTTCTACAGTTGGGAGAGTAGCAAGGACCCCGCTGAGCAGCAGGGCAAGGGTGTGG  
CCCTTAAATCTGTGCACAGCCTTCTTCAAGTGGCTCCGTGAAGTCAGAGGAGGAGTCTGACCACAACCTGAGGGCTG  
GTGGGGCCCGGGGACCTGGAGCCCCATGGACACACAGATGGCTCCGGCTAGCCGCCTGGACTGCAGGGGGGCGGCA  
GCAGCGGCGGTGGCAGTGGGTGCCTGTAGTGTGATGTGTCTGAACTAATAAAGTGGCTGAAGAGGCAGGATGGCT  
TGGGGCTGCCCTGGGCCCCCTCCAGGATGCCGCCAGGTGTCCCTCTCCTCCCCCTGGGGCACAGAGATATATTATA  
TATAAAGTCTTGAAAATTTTGAAATTTGGTGTGTCTTGGGGTGGGGAGGGGCACCAACGCCTGCCCCCTGGGGTCC  
TTTTTTTTATTTTCTGAAAATCACTCTCGGACTGCCGTCTCGCTGCTGGGCATATGCCCCAGCCCCCTGTACCAC  
CCCTGCTGTTGCCTGGGCAGGGGGAAGGGGGGCACGGTGCCTGTAATTATTAAACATGAATTCAATT

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**FIGURE 572**

MSGARTASTPTPPQTGGSLEPQANGETPQVAVIVRPDDRSQGAI IADRPGLPGPEHSPSESQPSSSPSTPSPSPV  
LEPGSEPNLAVLSIPGDTMTTIQMSVEESTPISRETGEPYRLSPEPTPLAEP ILEVEVTLSKVPPESEFSSSPLO  
APTPLASHTVEIHEPNGMVPSLEPEVESSPELAPPPACPSESPVP IAPTAQPEELLNGAPSPPAVDLSPVSEP  
EEQAKEVTASVAPPTIP SATPATAPSATSPAQEEEMEEEEDEEEGEVGEAGEGESEKRGELLPPESTPI PANLS  
QNLEAAAATQVAVSVPKRRRIKELNKKEAVGDLLDAFKEANPAVPEVENQPPAGSNPGPESESGVPPRPPEAD  
ETWDSKEDIHNAENIQPGEQKYEYKSDQWKPPNLEKKRYDREFLLGFQFIFCQMOKPEGLPHISDVVLDKANK  
TPLRPLDPTRLQG INCGPDFTPSFANLGRITTLSTRGPPRGPGGELARGAQAGLGPRRSQQGPRKEPRKI IATVL  
MTEDIKLNKAEKAWKPSSKRTAADKDRGEEDADGSKTQDLFRRWRSILNKLTQMFQQLMKQVTQLAIDTEDASK  
GSLTSFLRRPFQSP TSLWPIQHVPLPHGAESAHYGKPTVTVNFRKLLNRCQKEFEKDKDDDEVFEKKQKEMDEA  
ATAEERERLKEELEEAR DIARRCSLGNIKF IGELFKLKM LTEA IMHDCVVKLLKNHDEESLECLCRLLTTIGKDL  
DFEKAKPRMDQYFNQMEKI I KEKKTSSRIRFMLQDVLDLRGSNWVPRRGDQGPRPLTRSIRRLRWKTSRAHQSA  
AHARAVTSVGAVLQALPSAVDFPLWMMVADTVPI SKGSRPIDTSRLTKITKPGSIDSNQLFAPGGRLSWGKGSS  
GGSGAQPSDAASEAARPATSTLIRFSALQQAVPTTESTDNRRVVQRSSLSRERGEKAGDRGDRLERVNGETVGTG  
LIVSRTPATKRTFSKEVEERSRERPSQPEGLRKAASLTEDRDRGRDAVKREAALPPVSPLKAALSEEELEKKS  
IIEEYLHLNDMKEAVQCVQELASPSLLFIFVRHGVESTLERSAIAREHMGQLLHQLLCAGHLSTAQYYQGLYEIL  
ELAEDMEIDIPHVWLYLAELVTPILQEGGVPMGELFREITKPLRPLGKAASLLEILGLLCKSMGPKKVGTLWRE  
AGLSWKEFLPEGQDIGAFVAEQKVEYTLGEESEAPGQRALPSEELNRQLEKLLKEGSSNQRVFDWIEANLSEQIV  
SNTLVRALMTAVCYSAIIFETPLRVDVAVLKGDIVLQKYLCD EAGATGALRLQALVVTLEQPPNLLRMFFDALY  
DEDVVKEDAFYSWESSKDPAEQQGKGVALKSVTAFFKWLREVRGGV

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**FIGURE 573**

GGTAAGAGAAGACTGGAAGCATGTCGGAGTTTTGGTTAATTTCTGCCCTGGCGATAAGGAAAATTTGCAAGCTC  
TGGAGAGGATGAATACTGTAACTCCAAGTCCAACCTGTCTTATAATACCAAATTCGCTATTCTGACTTCAAGG  
TGGGGACCTTGGATTCCCTGGTTGGCTCTCTGATGAGTTGGGGAAACTCGACACCTTTGCTGAAAGCCTCATAA  
GGAGAATGGCTCAGAGCGTGGTGGAAGTCATGGAGGACTCAAAGGGGAAGGTCCAGGAGCACCTCCTGGCAAACG  
GAGTTGACTTAACATCCTTTGTGACCCACTTTGAATGGGACATGGCCAAATATCCTGTCAAGCAGCCGCTCGTGA  
GTGTGGTGGACACAATAGCCAAGCAACTGGCGCAGATCGAGATGGACCTGAAGTCCCGAACGGCCGCTACGACA  
CTCTGAAGACAAACCTGGAGAACCTGGAAAAGAAATCCATGGGGAACTCTTACCCGGACACTGAGTGATATTG  
TGAGCAAAGAGGACTTCGTGCTGGATTCTGAATATCTCGTCACACTTCTGGTCATCGTCCCCAAACCAACTACT  
CACAATGGCAAAAAACCTACGAATCTCTCTCAGACATGGTGGTCCCTCGATCAACCAAACCTATTACTGAGGACA  
AGGAAGGGGGCCTTTTCACTGTGACTCTGTTTCGAAAAGTGATTGAAGATTTCAAACCAAGGCCAAAGAAAACA  
AGTTCACTGTTTCGTGAATTTTACTATGATGAGAAGGAAATTGAAAGGGGAAAGGAGGAGATGGCCAGATTGCTGT  
CTGATAAGAAGCAACAGTATGGCCCCCTGCTGCGCTGGCTCAAGGTGAACCTCAGTGAAGCCTTCATTGCCTGGA  
TCCACATCAAGGCCCTGAGAGTGTGTTGTTGGAGTCCGTGCTCAGGTATGGACTACCAGTGAACCTCCAGGCAGTGC  
TCCTGCAGCCGCATAAGAAGTCATCCACCAAGCGTTTTAAGAGAGGTTCTAAACTCTGTCTTCCGACATCTGGATG  
AAGTAGCCCGCTACAAGTATACTGGATGCATCTGTGGAGATCCCGGGACTGCAACTCAATAACCAAGACTATTTTC  
CTTATGTCTACTTCCATATTGACCTTAGTCTTCTTGACTAGAAAGGCCAGCTGGCACCTCTGTCTCATGTTTCGTG  
CAGATTATTACAGACACCTCTTTCCCTTTAGCCAGAGAATGGTTCAAATGTCTTACAGAACTAAGATCTTTTTTCAG  
AGAAATTGCTCACAAAAGTTAGTGACAGTTGTATTTATTTTTTAAAGTTACAATAAAATGCTCTCAAGTCCTTTG  
AATGTTCCAACAAATTCAAACCTTCATTTTCTGAATGTTTTACATAAATGCGAACTACCTGTTTCGATTGGTAAC  
CTGCTGCTGTATTTTCATGTCTTAACGGCTATTTTGAGGTTTCAATTAACAACATAGAAAGCCTTGAAGTGTATAACC  
AGCTAGATTTCCTTAATAATTAGTCACTAGAGACAGCCCAAAGACAAATATTGGGCAGGAAATCAGTTCTCACTGA  
GCCCCGTTTCCATGTAAAATCTCTGTTGTGGTGGGCATAGGTGGCACCATCTAAAGAAAAGAGGTCTTGTTTTTT  
GTTTTAAAAAGTTTGTGGGGAGGAAAGACATCTGTGTATCACTTCAAATATTGATTTACTGCTAAACATCACTC  
TGAATTTATGATGTGGATACTAATTTCATACATTTATCGGCATTGTCCAAAATATTTTATTCTTTAATGGAAAA  
GCCATTAATATTCAAATGAAGGGATCACATTAATAAAAAACCCATACATAAGAAACAGCCTCCAAGAACATTCAAG  
CAGCAGTCAGAGAGAAAAATGTTTCGACAGCCAAGTTTTCTTCAAATATTATGTGACAGAATACGACTCAATTC  
ACCGGCTACAACAATTTCATAGAATTTTTCAATGTTTTCTTGAGATGCAAAAGTTCACTGTTGCAGTGTTTTCAA  
TGACCAATCAAGTACTACTTCTTGTTTAAAGGCCACTGGTAGAGTCATCTGAGTGTAGAGAATGTCCCTTCACT  
GCTGGAAAAATCCACTGGCTCCCAAGAAAAGAAAATGGTCTGAAGCCTCTGTTGTGGCTCTCACAACCTCATCTTT  
CCCTAAGTCATCAAGCTCCACATCACTGAGGTCAATGTATCTCCACGGGAAGCTGGGAGACGACAGAAAGCCA  
CTGTTAGATCTGCAGAAGGGGACACCCTGGAAGGTCAACATCTCATTTTTATGGAAGAGCGACTCTCTGGAGCTAC  
TCCTGCTACAATCCAGGTTCTCTCAGTCTGACTCCTACCCTGACCTTCGTACCTATGATTATACGGATGGAAAA  
GCTCAGAACTCAGGTGAAACATTTCAACATCACATCACTCACCATTTTAACACTGGAAGCCACTTGAACGTGTCC  
TTTTGAGGAGGGTGGGACACAACAGTACAGAAATAAGTGCTAATTTCAAAGCTATCATTTTCTATTTTTCTAAGA  
TAAAGTAAATGAATTCAGGTTAAATGTTCACTTTAAGGTAATAATCAGGAAAGCAACCTTACTACTGAAATGTA  
TCTTGGCTGTCAAGAGTATCAAATGCCATGCAGCACTTAAACTTGTGATAAGGAAGATGAAGGGTCTTCAGAGAA  
GAACCTCTTAAAGGCCACCGGTGCACCAGGGCTGAGGTCTGATGGGAAGGACTTGACTCCAGGTGCAGAGATG  
CACAGGCTCAAGAGAGTAAACCAGGACTGCTGCCCGCACAGCTTCCCTCCCGGGCACTCACCTCGCCATCCCTGC  
CGTCCCAAGGCTCTCTCTCAACGATGGTAGGGAAAGCCCCGCCCTCTACAGGTGCCGTGGAGCCACGCCAAAAG  
AGAGCTCCCTTAGGGAAAAATGACCAAACACACACACATTTACAATGGACTGCTGGTGCAGAAGAATAAACA  
ACTTTAAAAATAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 574**

MSEFWLISAPGDKENLQALERMNTVTSKSNLSYNTKFAIPDFKVGTLDSLVLGSLDELGKLDTFAESLIRRMAQSV  
VEVMEDSKGKVQEHL LANGVDLTSEVTHFEWDMAKYPVKQPLVSVVD TIAKQLAQIEMDLKSRTAAYDTLKTNLE  
NLEKKSMGNLFTRTLSDIVSKEDFVLDSEYLVTL LVIVPKPNYSQWQKTYESLSDMVVPRSTKLITEDKEGGLFT  
VTLFRKVIEDFKTKAKENKFTVREFYYDEKEIEREREEMARLLSDKKQYG PLLRWLKVNFSEAFIAWIIKALR  
VFVESVLR YGLPVNFQAVLLQPHKKSSTKRLREVLNSVFRHLDEVAATSILDASVEIPGLQLNNQDYFPYVYFHI  
DLSLLD

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**FIGURE 575**

AGATCTGAATCCAGAGGCTCTCGGAGGAAGAGCTCAGGCCACTGAGGCGGCTCCCAGCTGCGTTGGCGAC**ATGGC**  
CGACACCCCCAGAGATGCCGGGCTCAAGCAGGCGCCTGCATCACGGAACGAGAAGGCCCGGTGGACTTCGGCTA  
CGTGGGGATTGACTCCATCCTGGAGCAGATGCGCCGGAAGGCCATGAAGCAGGGCTTCGAGTTCAACATCATGGT  
GGTCCGGGCAGAGCGGCTTGGGTAAATCCACCTTAATCAACACCCTCTTCAAATCCAAAATCAGCCGGAAGTCGGT  
GCAGCCACCTCAGAGGAGCGCATCCCCAAGACCATCGAGATCAAGTCCATCACGCACGATATTGAGGAGAAAGG  
CGTCCGGATGAAGCTGACAGTGATTGACACACCAGGGTTCGGGGACCACATCAACAACGAGAAGTCTGGCAGCC  
CATCATGAAGTTCATCAATGACCAGTACGAGAAATACCTGCAGGAGGAGGTCAACATCAACCGCAAGAAGCGCAT  
CCCGGACACCCGCGTCCACTGCTGCCTCTACTTCATCCCCGCCACCGGCCACTCCCTCAGGCCCCCTGGAGCAGAA  
AGTGCCTTTATCTCAGCCATCCGCAGACTGCTCGGCCAGATGCGGGGACAGGCTGGAAT**TGAGGG**GAGGCGTCTTCA  
TCTCCCTGCCATCCCCCTCTCACGCCACCCCCGCCCCACCGGGCTGCAGGTGCTGCTGATGCGCTGGGATCTGA  
TTGAGGATAAAAAAGGAAGGAGAGATGACCCCTACCCCTCATCCCCAGTTTTGAAAAGGTCTAAGCAAGTGAGT  
CTGGTGGAGGAGCTGAGGGAGGGAGCCATGGAAGGTGCCAGAAGGAAGGTTGGCGGGGGCACGTGTGGGCCGTGG  
CTTGGGCTGGTCAGAGTGGCGTGAGCTGCCCGGCGCCTGCCCTGCCCAAGTGACCAGGGAAGTGTGTGTGTGCC  
ATGTGTAIGCGTGTCCGTCTGTCTGTCTAGTGTCTGGGTTTGGCCCAAGACTGGGCTGTAGTTACATTAATGCCC  
AGCCAGCCACCCCTGCCACTCACCCCTCCTGGCCCAGGCCTTGCTGACTCTCTGAGCTGGGGAGGTGGGAGGCCA  
GGCGAGCCTGACTCTGTTGATCTACCCGTGCCTGGGCCCCCTCCCCCTCAGAGCCCATGGTAACGAACCCCTAGAAA  
GGAGAGAACGGGCGTCAGGGGTGCACAGTCCACAGCTGAAGAGCAAGGTTTCGTGGCAGCACGGCCCGGCCCTC  
ACCCTCTGTCCCCACGAGGGGACCATGGGGGCTGTCTTTGCAGGGCACAGATGACCAAAGTCCCTTCCTGCTTC  
CTGTTACCTGTCTTGCTCCTGGGGAGAAAGAGGGGCCTGATGAGACTCCACTCAGGTGCACACATCACCAGGTGC  
ATCTGCAGGCACCGGGCTGGCTGCTTGCCAGCAGGAGAAGGTCAGCGAGAAGGAGTGTATGAGTGTGAGTGTGTG  
TGCATGGAAGTTGGGGCACTGGGCGTCTGACTCCCTCCCCACCCAAGAGAGGAAGGACCCCTCACCACCCCCACT  
GGCGAGACAGTTTACTTTGCCGACTTGCCATGTTTTTGCCAAAACCAAGATTTTGAAGGAAATGAGTGGCCAGCG  
CCAGGGCCCAGGCCATGTGGCCTGCCCAGCCTCAATGTCACTTGTTGGCGGGGTGGGGTGGGGTGGGCAGCAGC  
ATCCCAGCCTTGAGATGCTTCACTTTCCTTCTGTAAACCAGACTTTGAAAAATTGTTCTGTTTCATCAGGCTCTG  
TTCCTCAATGGCCTTTTGCTACGTGCCTCCCGAGAAATTTGTCTTTTGTATAAATGACAAAGTGTTGAAAATGT  
ATTTCTGAAATAAATGTTTCAAATGC

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**FIGURE 576**

MADTPRDAGLKQAPASRNEKAPVDFGYVGIDSILEQMRRKAMKQGFEFNIMVVGQSGLGKSTLINTLFKSKISRK  
SVQPTSEERIPKTIEIKSITHDIEEKGVRLKLTVIDTPGFGDHINNENCWQPIIMKFINDQYEKYLQEEVNINRKK  
RIPDTRVHCCLYFIPATGHSLRPLEQKVPLSQPSADCSARCGDRLE



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**FIGURE 577**

GTTCTTGCCTGGTGTCTGGTGGTTAGTTTCTGCGACTTGTGTTGGGACTGCTGATAGGAAGATGTCTTCAGGAAAT  
GCTAAAATTGGGCACCCTGCCCCCACTTCAAAGCCACAGCTGTTATGCCAGATGGTCAGTTTAAAGATATCAGC  
CTGTCTGACTACAAAGGAAAAATATGTTGTGTTCTTCTTTTACCCTCTTGACTTCACCTTTGTGTGCCCCACGGAG  
ATCATTGCTTTTCACTGATAGGGCAGAAGAATTTAAGAACTCAACTGCCAAGTGATTGGTGCTTCTGTGGATTCT  
CACTTCTGTCTATCTAGCATGGGTCAATACACCTAAGAAACAAGGAGGACTGGGACCCATGAACATTCTTTGGTA  
TCAGACCCGAAGCGCACCATGCTCAGGATTATGGGTCTTAAAGGCTGATGAAGGCATCTCGTTCAGGGGCCTT  
TTTATCATTGATGATAAGGGTATTCTTCGGCAGATCACTGTAAATGACCTCCCTGTTGGCCGCTCTGTGGATGAG  
ACTTTGAGACTAGTTCAGGCCTTCCAGTTCAGTACAAACATGGGGAAGTGTGCCAGCTGGCTGGAAACCTGGC  
AGTGATACCATCAAGCCTGATGTCCAAAAGAGCAAAGAATATTTCTCCAAGCAGAAGTGAGCGCTGGGCTGTTTT  
AGTGCCAGGCTGCGGTGGGCAGCCATGAGAACAAAACCTCTTCTGTATTTTTTTTTTCCATTAGTAAAACACAAG  
ACTTCAGATTGAGCCGAATTGTGGTGTCTTACAAGGCAGGCCTTTCCTACAGGGGGTGAGAGACCAGCCTTTCT  
TCCTTTGGTAGGAATGGCCTGAGTTGGCGTTGTGGGCAGGCTACTGGTTTGTATGATGTATTAGTAGAGCAACCC  
ATTAATCTTTTGTAGTTTGTATTAACTTGAAGTGA

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## FIGURE 578

MSSGNAKIGHAPNFKATAVMPDGQFKDISLSDYKGKYVVFYPLDFTFVCPTEIIAFSDRAEEFKKLNQVIG  
ASVDSHFCHLAWVNTPKKQGGLGPMNIPLVSDPKRTIAQDYGVKKADEGISFRGLFIIDDKGILRQITVNDLPVG  
RSVDETLRLVQAFQFTDKHGEVCPAGWKPGSDTIKPDVQKSKEYFSKQK

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**FIGURE 579**

GTCAC TCGTATAAAAAACCTATGCTTTGAAGGTTCTCGTGTGTCTCGGCCTGCAGGTCTCGCTCAGAGCTGTGTCC  
CTGAACATCCACCCCTGCTGGGGTGGCTTGACGCACTTCTGTGCAAATCTGTTTCGCTCGCAACCCTACCTACCTCT  
CTCCCGAACCGGAGAAAACTTCGGCGGGGTCTTCCGGGTTTTGTGTGCAATCTGCGGCGGCGACCCGGCGCCG  
CGTCACGCGGTGGTGAATGTGCGGCAGTACGCGCGCCGCGTCTTTACGCGGCGATTTCATCATGCTCCGAGCCG  
GCGGCGCGCGCCGCTTCCGTCGCCACCCTCTCTGGACAGCCAGGGCCGCAGGCTCATGCCCTCTCCGCGTCCAG  
TGCTGCTTAGAGGTGCTCGCGCCGCTCTGCTGCTGCTGCTGCCGCCCCGGCTCTTAGCCCCACCCTCGCTCCTCC  
TCCGCCGGTCCCTCAGCGCGGCTCCTGCGCCCCGATCTCCTTGCCCCGCCGCGCTCCCGGAGCAGCATGGACG  
GCGCGGGGGCTGAGGAGGTGCTGGCACCTCTGAGGCTAGCAGTGCGCCAGCAGGGAGATCTTGTGCGAAACTCA  
AAGAAGATAAAGCACCCCAAGTAGACGTAGACAAAGCAGTGGCTGAGCTCAAAGCCCGCAAGAGGGTTCTGGAAG  
CAAAGGAGCTGGCGTTACAGCCCAAAGATGATATTGTAGACCGAGCAAAAAATGGAAGATACCCTGAAGAGGAGGT  
TTTTCTATGATCAAGCTTTTGTCTATTTATGGAGGTGTTAGTGGTCTGTATGACTTTGGGCCAGTTGGCTGTGCTT  
TGAAGAACAATATTATTCAGACCTGGAGGCAGCACTTTATCCAAGAGGAACAGATCCTGGAGATCGATTGCACCA  
TGCTCACCCCTGAGCCAGTTTTAAAGACCTCTGGCCATGTAGACAAATTTGCTGACTTCATGGTGAAAGACGTAA  
AAAATGGAGAATGTTTTCTGTGCTGACCATCTATTAAAAGCTCATTTACAGAAATTGATGTCTGATAAGAAGTGTT  
CTGTGCAAAAAGAAATCAGAAATGGAAAGTGTTTTGGCCCAGCTTGATAACTATGGACAGCAAGAACTTGCGGATC  
TTTTTGTGAACATAAATGTAAAATCTCCCATTACTGGAAATGATCTATCCCCCTCCAGTGTCTTTTAACTTAATGT  
TCAAGACTTTTCATTGGGCCTGGAGGAAACATGCCTGGGTACTTGAGACCAGAACTGCACAGGGGATTTTCTTGA  
ATTTCAAACGACTTTTGGAGTTCAACCAAGGAAAGTTGCCTTTTGTCTGCTGCCAGATTGGAAATTCCTTTTAGAA  
ATGAGATCTCCCTCGATCTGGACTGATCAGAGTCAGAGAATTCACAATGGCAGAAATTGAGCACTTTGTAGATC  
CCAGTGAGAAAGACCACCCCAAGTTCCAGAATGTGGCAGACCTTCACCTTTATTTGTATTACAGAAAAGCCCAGG  
TCAGCGGACAGTCCGCTCGGAAAATGCGCCTGGGAGATGCTGTTGAACAGGGTGTGATTAATAACACAGTATTAG  
GCTATTTTCATTGGCCGCATCTACCTCTACCTCAGGAAGGTTGGAATATCTCCAGATAAACTCCGCTTCCGGCAGC  
ACATGGAGAATGAGATGGCCCATTTATGCCTGTGACTGTTGGGATGCAGAATCCAAAACATCCTACGGTTGGATTG  
AGATTGTTGGATGTGCTGATCGTTTCTGTTATGACCTCTCCTGTCATGCACGAGCCACCAAAGTCCCACTTGTAG  
CTGAGAAAACCTCTGAAAGAACCCAAAACAGTCAATGTTGTTTCAGTTTGAACCCAGTAAGGGAGCAATTGGTAAGG  
CATATAAGAAGGATGCAAACTGGTGATGGAGTATCTTGCCATTTGTGATGAGTGCTACATTACAGAAATGGAGA  
TGCTGCTGAATGAGAAAGGGGAATTCACAATTGAACTGAAGGGGAAAACATTTTCAGTTAACAAAAGACATGATCA  
ATGTGAAGAGATTCCAGAAAACACTATATGTGGAAGAAGTTGTTCCGAATGTAATTGAACCTTCCTTCGGCCTGG  
GTAGGATCATGTATACGGTATTTGAACATACATTCCATGTACGAGAAGGAGATGAACAGAGAACATTCTTCAGTT  
TCCCTGCTGTAGTTGCTCCATTCAAATGTTCCGTCTTCCCACTGAGCCAAAACCAGGAGTTTCATGCCATTTGTCA  
AGGAATTATCGGAAGCCCTGACCAGGCATGGAGTATCTCACAAAGTAGACGATTCCCTCTGGGTCAATCGGAAGGC  
GCTATGCCAGGACTGATGAGATTGGCGTGGCTTTTGGTGTCAACCATTGACTTTGACACAGTGAACAAGACCCCCC  
ACACTGCAACTCTGAGGGACCGTGACTCAATGCGGCAGATAAGAGCAGAGATCTCTGAGCTGCCAGCATAGTCC  
AAGACCTAGCCAATGGCAACATCACATGGGCTGATGTGGAGGCCAGGTATCCTCTGTTTGAAGGGCAAGAGACTG  
GTAAAAAGAGACAATCGAGGAATGAGGACAATTTTGACAACCTTTTGACCACTTGCGCTAATAAAAAAAAAAAAAA  
CTACTCTTATGTCCACTTTACAAAAGAAAACAGCATTGTGATTACTCCAGGGACCGTATTTTATCTTCAGTGGC  
TGCTGATTTTACCCCAACAATTAAAGTTGAAGGAATCCTGA

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**FIGURE 580**

MDGAGAEVLAPLRLAVRQQGDLVRKLKEDKAPQVDVDKAVAEKARKRVLEAKELALQPKDDIVDRAKMEDTLK  
RRFFYDQAFAYGGVSGLYDFGPVGCALKNNIIQTWRQHF IQEEQILEIDCTMLTPEPVLKTSGHVDFADFMVK  
DVKNCECFRADHLLKAHLQKLMSDKKCSVEKKSEMESVLAQLDNYGQQELADLFVNYNVKSPITGNDLSPPVSFN  
LMFKTFIGPGGNMPGYLRPETAQGIFLNFKRLLEFNQGKLPFAAAQIGNSFRNEISPRSLIRVREFTMAEIEHF  
VDPSEKDHDPKFQNVADLHLYLSAKAQVSGQSARKMRLGDAVEQGVINNTVLGYFIGRIYLYLTKVGISPDKLRF  
RQHMENEMAHYACDCWDAESKTSYGWIEIVGCADRSCYDLSCHARATKVPLVAEKPLKEPKTVNVVQFEPKGA I  
GKAYKKDAKLVMEYLAICDECYITEMEMLLNEKGFTIETEGKTFQLTKDMINVKRFQKTLYVEEVVPNVIEPSF  
GLGRIMYTVFEHTFHVREGDEQRTFFSFPVAVVAPFKCSVLPLSQNQEFMPFVKELSEALTRHGVSHKVDDSSGSI  
GRRYARTDEIGVAFGVTIDFDTVNKTPHTATLRDRDSMRQIRAEISELPSIVQDLANGNITWADVEARYPLFEGQ  
ETGKKETIEE

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**FIGURE 581**

GTAGGAGGACCTGAAATTGAGCTGATTGCCATCGCAACAGGAGGGCGGATCGTCCCCAGGTTCTCAGAGCTCACA  
GCCGAGAAGCTGGGCTTTGCTGGTCTTGTACAGGAGATCTCATTGGGACAACCTAAGGATAAAATGCTGGTCATC  
GAGCAGTGTAAGAACTCCAGAGCTGTAACCATTTTTATTAGAGGAGGAAATAAGATGATCATTGAGGAGGCGAAA  
CGATCCCTTCACGATGCTTTGTGTGTCATCCGGAACCTCATCCGCGATAATCGTGTGGTGTATGGAGGAGGGGCT  
GCTGAGATATCCTGTGCCCTGGCAGTTAGCCAAGAGGCGGATAAGTGCCCCACCTTAGAACAGTATGCCATGAGA  
GCGTTTGCCGACGCACTGGAGGTCATCCCCATGGCCCTCTCTGAAAAACAGTGGCATGAATCCCATCCAGACTATG  
ACCGAAGTCCGAGCCAGACAGGTGAAGGAGATGAACCCTGCTCTTGGCATCGACTGTTTGACAAGGGGACAAAT  
GATATGAAGCAACAGCATGTCATAGAAACCTTGATTGGCAAAAAGCAACAGATATCTCTTGCAACACAAATGGTT  
AGAATGATTTTGAAGATTGATGACATTCGTAAGCCTGGAGAATCTGAAGAAATGAAGACATTGAGAAAACCTATGTA  
GCAAGATCCACTTCTGTGATTAAGTAAATGGATGTCTCGTGATGCGTCTACAGTTATTTATTGTTACATCCTTTT  
CCAGACACTGTAGATGCTATAATAAAAAATAGCTGTTTGGAACCATAGTTTCACTTGTTCAAAGCCGTGTAATCG  
TGGGGGTACTATCTCAACTGCTTTTGTATTCAATTGTATTAAAGAATCTGTTTAAGCAAAAAAAAAAAAAAAAAA  
AAAAAAA

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**FIGURE 582**

MLVIEQCKNSRAVTIFIRGGNKMIIEEAKRSLHDALCVIRNLIRDNRVYGGGAAEISCALAVSQEADKCPTLEQ  
YAMRAFADALEVIPMALSENSGMNPIQTMTEVRARQVKEMNPALGIDCLHKGTDNDMKQQHVIETLIGKKQQISLA  
TQMVRMILKIDDIRKPGSEEE

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**FIGURE 583**

AATTCGGGGGCGGTGGAGTTTGTGACATACGAGGTGACACCCCTCGAGTCACTTCCCTTCAACTCCAGCTGGAGC  
 GCCTGCTTGGCTTTGGGTTTCGTTCTGCAGCCTTCGCCCCGCTCCTAGCCTCAGGGCCGGACTCCAGCGCAGAGCC  
 CAGCCCAGCGCAGCCTGCCAGCAGCCACCCAGCCGCCCAGCCGCCCAGCCCCGACGAAACCCGGCCAGAGCTTC  
 CTAGCAGCCCCAGGCCATGAACACCGAAATGTATCAGACCCCCATGGAGGTGGCGGTCTACCAGCTGCACAATTTT  
 TCCATCTCCTTCTTCTCTCTGCTTGGAGGGGATGTGGTTTCCGTTAAGCTGGACAACAGTGCCTCCGGAGCC  
 AGCGTGGTGGCCATAGACAACAAGATCGAACAGGCCATGGATCTGGTGAAGAATCATCTGATGTATGCTGTGAGA  
 GAGGAGGTGGAGATCCTGAAGGAGCAGATCCGAGAGCTGGTGGAGAAGAACTCCAGCTAGAGCGTGAGAACC  
 CTGTTGAAGACCCTGGCAAGCCCAGAGCAGCTGGAGAAGTTCCAGTCTGTCTGAGCCCTGAAGAGCCAGCTCCC  
 GAATCCCCACAAGTGCCCCGAGGCCCTGGTGGTTCTGCGGTGTAAGTGGCTCTGTCTCAGGGTGGGCAGAGCCA  
 CTAACTTGTTTTACCTAGTTCTTTCCAGTTTGTTTTTGGCTCCCCAAGCATCATCTCAGGAGAGAACTTTACA  
 CCTAGCACAGCTGGTGCCAAGAGATGTCCTAAGGACATGGCCACCTGGGTCCACTCCAGCGACAGACCCCTGACA  
 AGAGCAGGTCTCTGGAGGCTGAGTTGCATGGGGCCTAGTAACACCAAGCCAGTGAGCCTCTAATGCTACTGCGCC  
 CTGGGGGCTCCCAGGGCCTGGGCAACTTAGCTGCAACTGGCAAAGGAGAAGGGTAGTTTGAGGTGTGACACCAGT  
 TTGCTCCAGAAAGTTTAAAGGGTCTGTTTTCTCATCTCCATGGACATCTTCAACAGCTTCACCTGACAACGACTGT  
 TCCTATGAAGAAGCCACTTGTGTTTTAAGCAGAGGCAACCTCTCTCTCTCTCTGTTTCGTGAAGGCAGGGGAC  
 ACAGATGGGAGAGATTGAGCCAAGTCAGCCTTCTGTTGGTTAATATGGTATAATGCATGGCTTTGTGCACAGCCC  
 AGTGTGGGATTACAGCTTTGGGATGACCGCTTACAAAGTTCTGTTTGGTTAGTATTGGCATAGTTTTTCTATATA  
 GCCATAAATGCGTATATATACCCATAGGGCTAGATCTGTATCTTAGTGTAGCGATGTATACATATACACATCCAC  
 CTACATGTTGAAGGGCCTAACCAGCCTTGGGAGTATTGACTGGTCCCTTACCTCTTATGGCTAAGTCTTTGACTG  
 TGTTCAATTTACCAAGTTGACCCAGTTTGTCTTTTAGGTTAAGTAAGAACTCGAGAGTAAAGGCAAGGAGGGGGGC  
 CAGCCTCTGAATGCGGCCACGGATGCCTTGCTGCTGCAACCCTTTCCCCAGCTGTCCACTGAAACGTGAAGTCCT  
 GTTTTGAATGCCAAACCCACCATTCACTGGTGTGACTACATAGAATGGGTTGAGAGAAGATCAGTTTGGGCTTC  
 ACAGTGTCAATTTGAAAAAGCGTTTTTGTGTTTTGTTTTGAATTATTGTGAAAACTTTCAAGTGAACAGAAGGATGG  
 TGTCTACTGTGGATGAGGGATGAACAAGGGGATGGCTTTGATCCAATGGAGCCTGGGAGGTGTGCCCAGAAAGC  
 TTGTCTGTAGCGGGTTTTGTGAGAGTGAACACTTTCCACTTTTTGACACCTTATCCTGATGTATGGTTCCAGGAT  
 TTGGATTTTGATTTTCCAAATGTAGCTTGAAATTTCAATAAACTTTGCTCTGTTTTTCTAAAAAATAAAAA

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**FIGURE 584**

MNTEMYQTPMEVAVYQLHNFSISFFSLLGGDVVSVKLDNSASGASVVAIDNKIEQAMD LVKNHLMYAVREEVEI  
LKEQIRELVEKNSQLERENTLLKTLASPEQLEKFQSCLSPEEPAPESPQVPEAPGGS AV



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**FIGURE 585**

GACGTTTCGCGCCAATTTCCGGTTGGCCGGCCACAGTCCACCGCGCGGAGATTCTCAGCTTCCCCAGGAGCAAGAC  
CTCTGAGCCCCGCAAGCGCGGCCGCACGGCCCTCGGCAGCG**ATGC**CACTGAAGGACTACGCGCTAGAGAAGGAAA  
AGGTTAAGAAGTTCTTACAAGAGTTCTACCAGGATGATGAACTCGGGAAGAAGCAGTTCAAGTATGGGAACCACT  
TGGTTTCGGCTGGCTCATCGGGAACAGGTGGCTCTGTATGTGGACCTGGACGACGTAGCCGAGGATGACCCCGAGT  
TGGTGGACTCAATTTGTGAGAATGCCAGGCGCTACGCGAAGCTCTTTGCTGATGCCGTACAAGAGCTGCTGCCTC  
AGTACAAGGAGAGGGAAGTGGTAAATAAAGATGTCCTGGACGTTTACATTGAGCATCGGCTAATGATGGAGCAGC  
GGAGTCGGGACCCTGGGATGGTCCGAAGCCCCCAGAACCAGTACCCTGCTGAACTCATGCGCAGATTTGAGCTGT  
ATTTTCAAGGCCCTAGCAGCAGCAAGCCTCGTGTGATCCGGGAAGTGCAGGCTGACTCTGTGGGGAAGTTGGTAA  
CTGTGCGTGGAATCGTCACTCGTGTCTCTGAAGTCAAACCCAAGATGGTGGTGGCCACTTACACTTGTGACCAGT  
GTGGGGCAGAGACCTACCAGCCGATCCAGTCTCCCACTTTTCATGCCTCTGATCATGTGCCAAGCCAGGAGTGCC  
AAACCAACCGCTCAGGAGGGCGGCTGTATCTGCAGACACGGGGCTCCAGATTCATCAAATTCCAGGAGATGAAGA  
TGCAAGAACATAGTGATCAGGTGCCTGTGGGAAATATCCCTCGTAGTATCACGGTGTGGTAGAAGGAGAGAACA  
CAAGGATTGCCAGCCTGGAGACCACGTACGCGTCACTGGTATTTCTTGCCAATCCTGCGCACTGGGTTCGGAC  
AGGTGGTACAGGGTTTACTCTCAGAAACCTACCTGGAAGCCCATCGGATTGTGAAGATGAACAAGAGTGAGGATG  
ATGAGTCTGGGGCTGGAGAGCTCACCAGGGAGGAGCTGAGGCAAAATGCAGAGGAGGATTTCTACGAAAAGCTGG  
CAGCTTCAATCGCCCCAGAAATATACGGGCATGAAGATGTGAAGAAGGCACTGCTGCTCCTGCTAGTCGGGGGTG  
TGGACCAGTCTCCTCGAGGCATGAAAATCCGGGGCAACATCAACATCTGTCTGATGGGGGATCCTGGTGTGGCCA  
AGTCTCAGCTCCTGTCTATACATTGATCGACTGGCGCCTCGCAGCCAGTACACAACAGGCCGGGGCTCCTCAGGAG  
TGGGGCTTACGGCAGCTGTGCTGAGAGACTCCGTGAGTGGAGAAGTACCTTAGAGGGTGGGGCCCTGGTGTGG  
CTGACCAGGGTGTGTGCTGCATTGATGAGTTCGACAAGATGGCTGAGGCCGACCGCACAGCCATCCACGAGGTCA  
TGGAGCAGCAGACCATCTCCATTGCCAAGGCCGGCATTCTCACCACACTCAATGCCCGCTGCTCCATCCTGGCTG  
CCGCCAACCCTGCCTACGGGCGCTACAACCCTCGCCGCAGCCTGGAGCAGAACATACAGCTACCTGCTGCACTGC  
TCTCCCGGTTTGACCTCCTCTGGCTGATTAGGACCGGCCCCGACCGAGACAATGACCTACGGTTGGCCAGCACA  
TCACCTATGTGCACCAGCACAGCCGGCAGCCCCCTCCCACTTTGAACCTCTGGACATGAAGCTCATGAGGCGTT  
ACATAGCCATGTGCCGCGAGAAGCAGCCCATGGTGCCAGAGTCTCTGGCTGACTACATCACAGCAGCATACTGCTG  
AGATGAGGCGAGAGGCTTGGGCTAGTAAGGATGCCACCTATACTTCTGCCCCGACCCCTGCTGGCTATCCTGCGCC  
TTTCCACTGCTCTGGCACGTCTGAGAATGGTGGATGTGGTGGAGAAAGAAGATGTGAATGAAGCCATCAGGCTAA  
TGGAGATGTCAAAGGACTCTCTTCTAGGAGACAAGGGGCAGACAGCTAGGACTCAGAGACCAGCAGATGTGATAT  
TTGCCACCGTCCGTGAACTGGTCTCAGGGGGCCGAAGTGTCCGGTTCTCTGAGGCAGAGCAGCGCTGTGTATCTC  
GTGGCTTACACCCGCCAGTTCCAGGCGGCTCTGGATGAATATGAGGAGCTCAATGTCTGGCAGGTCAATGCTT  
CCCGGACACGGATCACTTTTGTCT**TGAT**TCCAGCCTGCTTGCAACCCTGGGGTCCTCTTGTTCCCTGCTGGCCTGC  
CCCTTGGGAAGGGGCAGTGATGCCTTTGAGGGGAAGGAGGAGCCCCCTTTTCTCCCATGCTGCACTTACTCCTTT  
TGCTAATAAAAGTGTTTGTAGATTGTC

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**FIGURE 586**

MALKDYALEKEKVKKFLQEFYQDDELGKKQFKYGNQLVRLAHREQVALYVDLDDVAEDDPELVDSICENARRYAK  
LFADAVQELLQPQKEREVVNKDVLDVYIEHRLMMEQSRDPGMVRSPQNQYPAELMRRFELYFQGPSSSKPRVIR  
EVRADSVGKLVTVRGIVTRVSEVKPKMVVATYTCDCQGAETYQPIQSPTFMPLIMCPSQECQTNRSGGRLYLQTR  
GSRFIKFQEMKMQEHSQVPVGNIPRSITVLVEGENTRIAQPGDHVSVTGIFLPILRTGFRQVVQGLLSETYLEA  
HRIVKMNKSEDDESGAGELTREELRQIAEEDFYEKLAASIAPEIYGHEDVKKALLLLLVGGVDQSPRGMKIRGNI  
NICLMGDPGVAKSQLLSYIDRLAPRSQYTTGRGSSGVGLTAAVLRDSVSGELTLEGGALVLADQGVCCIDEFDKM  
AEADRTAIHEVMEQQTISIAGILTTLNARCSILAAANPAYGRYNPRRSLEQNIQLPAALLSRFDLLWLIQDRP  
DRDNDLRLAQHITYVHQHSRQPPSQFEPLDMKLMRRYIAMCREKQPMVPESLADYITAAYVEMRREAWASKDATY  
TSARTLLAILRLSTALARLRMVDVVEKEDVNEAIRLMEMSKDSL LGDKGTARTQRPADVIFATVRELVS GGRSV  
RFSEAEQRCVSRGFTPAQFQAALDEYEELNVWQVNASRTRITFV

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**FIGURE 587**

CTTTCTGCCCACACTAGACATGGCGCTTGCCAGCGTGTGGAGAGACCGCTACCGGTGAACCAGCGCGGGTTTTT  
CGGACTTGGGGGTCGTGCAGATCTGCTGGATCTAGGTCCAGGGAGTCTCAGTGATGGTCTGAGCCTGGCCGCGCC  
AGGCTGGGGTGTCCCAGAAGAGCCAGGAATCGAAATGCTTCATGGAACAACCACCCTGGCCTTCAAGTTCCGCCA  
TGGAGTCATAGTTGCAGCTGACTCCAGGGCTACAGCGGGTGCTTACATTGCCTCCCAGACGGTGAAGAAGGTGAT  
AGAGATCAACCCATACCTGCTAGGCACCATGGCTGGGGGCGCAGCGGATTGCAGCTTCTGGGAACGGCTGTTGGC  
TCGGCAATGTCGAATCTATGAGCTTCGAAATAAGGAACGCATCTCTGTAGCAGCTGCCTCCAACTGCTTGCCAA  
CATGGTGTATCAGTACAAAGGCATGGGGCTGTCCATGGGCACCATGATCTGTGGCTGGGATAAGAGAGGCCCTGG  
CCTCTACTACGTGGACAGTGAAGGAACCGGATTTACGGGGCCACCTTCTCTGTAGGTTCTGGCTCTGTGTATGC  
ATATGGGGTCATGGATCGGGGCTATTCCTATGACCTGGAAGTGGAGCAGGCCTATGATCTGGCCCGTCGAGCCAT  
CTACCAAGCCACCTACAGAGATGCCTACTCAGGAGGTGCAGTCAACCTCTACCACGTGCGGGAGGATGGCTGGAT  
CCGAGTCTCCAGTGACAATGTGGCTGATCTACATGAGAAGTATAGTGGCTCTACCCCTTGAAAGAGGGTGGATGC  
AGCTGCTTGTGTTTCTTGGGGTGA CTGTTCATTGGTAATACGGACACAGTGACCCATCCTCCATCCTATTTATAGT  
GGAAGGGCCTTCAATTGTATCAGTACTTTTTTTTAAAGCTCTGGCACATTGACCTCTATGTGTTACCAGTCATTAA  
TGAGCTGCTGCAGAGGTGACTATTTGTTTTACTTTCTTGGATGTTAAACATTACACTACTCACTACTCAATCTCA

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**FIGURE 588**

MALASVLERPLPVNQRGFFGLGGRADLLDLGPGSLSDGLSLAAPGWGVPEEPGIEMLHGTTTTLAFKFRHGVIVAA  
DSRATAGAYIASQTVKKVIEINPYLLGT MAGGAADCSFWERLLARQCRIYELRNKERISVAAASKLLANMVYQYK  
GMGLSMGTMICGWDKRGPGLYYVDSEGNRISGATFSVGSGSVYAYGVMDRGYSYDLEVEQAYDLARRAIYQATYR  
DAYSGGAVNLYHVREDGWIRVSSDNVADLHEKYSGSTP

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**FIGURE 589**

TCTCTTGATTCTAGTCTCTCGAT**ATG**GCACCTCCGTCACTCTTTGCCGAGGTTCCGCAGGCCCAGCCTGTCCTG  
GTCTTCAAGCTCACTGCCGACTTCAGGGAGGATCCGGACCCCCGCAAGGTCAACCTGGGAGTGGGAGCATATCGC  
ACGGATGACTGCCATCCCTGGGTTTTGCCAGTAGTGAAGAAAGTGGAGCAGAAGATTGCTAATGACAATAGCCTA  
AATCACGAGTATCTGCCAATCCTGGGCCTGGCTGAGTTCCGGAGCTGTGCTTCTCGTCTTGCCCTTGGGGATGAC  
AGCCCAGCACTCAAGGAGAAGCGGGTAGGAGGTGTGCAATCTTTGGGGGGAACAGGTGCACCTCGAATTGGAGCT  
GATTTCTTAGCGCGTTGGTACAATGGAACAAACAACAAGAACACACCTGTCTATGTGTCTCACCAACCTGGGAG  
AATCACAATGCTGTGTTTTCCGCTGCTGGTTTTAAAGACATTCCGGTCCTATCGCTACTGGGATGCAGAGAAGAGA  
GGATTGGACCTCCAGGGCTTCCTGAATGATCTGGAGAATGCTCCTGAGTTCTCCATTGTTGTCCTCCACGCCTGT  
GCACACAACCCAACTGGGATTGACCCAACTCCGGAGCAGTGGAAAGCAGATTGCTTCTGTCTATGAAGCACCGGTTT  
CTGTTCCCTTCTTTGACTCAGCCTATCAGGGCTTCGCATCTGGAAACCTGGAGAGAGATGCCTGGGCCATTTCGC  
TATTTTGTGTCTGAAGGCTTCGAGTTCTTCTGTGCCAGTCCTTCTCCAAGAACTTCGGGCTCTACAATGAGAGA  
GTCGGGAATCTGACTGTGGTTGGAAAAGAACCTGAGAGCATCCTGCAAGTCCTTTCCAGATGGAGAAGATCGTG  
CGGATTACTTGGTCCAATCCCCCGCCAGGGAGCACGAATTGTGGCCAGCACCTCTCTAACCTGAGCTCTTT  
GAGGAATGGACAGGTAATGTGAAGACAATGGCTGACCGGATTCTGACCATGAGATCTGAACTCAGGGCACGACTA  
GAAGCCCTCAAAACCCCTGGGACCTGGAACCACATCACTGATCAAATTGGCATGTTGAGCTTCACTGGGTTGAAC  
CCCAAGCAGGTTGAGTATCTGGTCAATGAAAAGCACATCTACCTGCTGCCAAGTGGTCAATCAACGTGAGTGGC  
TTAACCACCAAAAATCTAGATTACGTGGCCACCTCCATCCATGAAGCAGTCACCAAAATCCAG**TGA**AGAAACACC  
ACCCGTCCAGTACCACCAAAGTAGTTCTCTGTCTGTGTGTTCCTGCCTGCACAAACCTACATGTACATACCAT  
GGATTAGAGACACTTGCAGGACTGAAAGCTGCTCTGGTGAGGCAGCCTCTGTTTAAACCGGCCCCACATGAAGAG  
AACATCCCTTGAGACGAATTTGGAGACTGGGATTAGAGCCTTTGGAGGTCAAAGCAAATTAAGATTTTTATTAA  
GAATAAAAGAGTACTTTGATCATGAGACATAGGTATCTTGTCCCTCTCACTAAAAAGGAGTGTGTGTGTGGCGG  
CCACGTGCTTCTATGTGGTGTGTTGACTCTGTACAAATTCTAGTCCCAAAGATCAAGTTGTCTGAAGGAGCCAAAG  
TGTGAATGTGGGTGTCGGCTGCGGCATTAAATTCATCATCTCAACCCAGAGTGTCTGGTCTCCCTGCTCTTTCTG  
CATGGTTGTGTCCCTAGTCCTAAGCTTTGGTTCTTTAGGGTGACTGTGGTAAGAAGGATATTTAATCATGACATG  
CACGGACACGTACATATTTAACTGAAACAAGTTTTACCAACAGTATTTACTCGTGATGTGCGTAGTGCAATTCTG  
ATATTTTTGAGCCATTCTATTGTGTTCTACTTCACCTAAAAAATAAAATAAAATGTTGATCAAG

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**FIGURE 590**

MAPPSVFAEVPQAQPVLVFKLTADFREDPDPRKVN LGVGAYRTDDCHPWVLPVVKKVEQKIANDNSLNHEYLPIL  
GLAEFRSCASRLALGDDSPALKEKRVGGVQSLGGTGALRIGADFLARWYNGTNNKNTPVYVSSPTWENHNAVFS  
AGFKDIRSYRYWDAEKRGDLQGF LNDLENAPEFSIVVLHACAHNPTGIDPTPEQWKQIASVMKHRFLFPFFDSA  
YQGFASGNLERDAWAIRYFVSEGFEFFCAQSFSKNFGLYNERVGNLTVVGKEPESILQVLSQMEKIVRITWSNPP  
AQGARIVASTLSNPELFEEWTGNVKT MADRILTMSELRARLEALKTPGTWNHITDQIGMFSFTGLNPKQVEYLV  
NEKHIYLLPSGRINVSGLT TKNLDYVATSIHEAVTKIQ

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**FIGURE 591**

GAATTGCTTTGGATCCATTTCCATCGGTCCTTACAGCCGCTCGTCAGACTCCAGCAGCCAAGATGGTGAAGCAG  
ATCGAGAGCAAGACTGCTTTTCAGGAAGCCTTGGACGCTGCAGGTGATAAACTTGTAGTAGTTGACTTCTCAGCC  
ACGTGGTGTGGGCCTTGCAAAATGATCAACCCTTTCTTTTCATTCCCTCTCTGAAAAGTATTCCAACGTGATATTC  
CTTGAAGTAGATGTGGATGACTGTCAGGATGTTGCTTCAGAGTGTGAAGTCAAATGCACGCCAACATTCCAGTTT  
TTTAAGAAGGGACAAAAGGTGGGTGAATTTTCTGGAGCCAATAAGGAAAAGCTTGAAGCCACCATTGAATTA  
GTCTAATCATGTTTTCTGAAAACATAACCAGCCATTGGCTATTTAAACTTGTATTTTTTTATTACAAAATATAA  
ATATGAAGACATAACCAGTTGCCATCTGCGTGACAATAAACATTATGCTAA

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**FIGURE 592**

MVKQIESKTAFAQEALDAAGDKLVVDF SATWCGPCKMINPFFHSLSEKYSNVIFLEVDVDDCQDVASECEVKCTP  
TFQFFKKGQKVGEFSGANKEKLEATINELV



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**FIGURE 593**

CTTGGAGGGAGGGATTAGAAGCCGCTAGACTTTTTTCTCCCTCTCAGTAGCACGGAGTCCGAATTAATTGGA  
TTTCATTCACTGGGGAGGAACAAAACTATCTGGGCAGCTTCATTGAGAGAGATTCACTGACACTAAGAGCCAGC  
GGCTGCAGCTGGGTGCAGAGAGAACCTCCGGCTTTACTTCTGTCTCGTCTGCCCCAACCGCTAGCCTCGGCTTGG  
GTAAGGCGAGGCGGAATTAAACCCCGCTCCGAGAGCGGCAGCTTCGCGCGCGGTGCGCTCGGCCTATGCCTGCCC  
CGAGGGGCGTCTGGTAGGCACCCCGCCCTCTCCCGCAGCTCGACCCCCATGATAGATACGCTCAGACCCGTGCCC  
TTCGCGTCGGAAATGGCGATCAGCAAGACGGTGGCGTGGCTCAACGAGCAGCTGGAGCTGGGCAACGAGCGGCTG  
CTGCTGATGGACTGCCGGCCGAGGAGCTATACGAGTCGTGCGACATCGAGTCGGCCATCAACGTGGCCATCCCC  
GGCATCATGCTGCGGCGCCTGCAGAAGGGTAACCTGCCGGTGC CGCGCTCTTCACGCGCGGCGAGGACCGGGAC  
CGCTTACCCGGCGCTGTGGCACCAGACACAGTGGTGTCTACGACGAGAGCAGCAGCGACTGGAACGAGAATACG  
GGCGGCGAGTCGTTGCTCGGGCTGCTGCTCAAGAAGCTCAAGGACGAGGGCTGCCGGGCGTTCTACCTGGAAGGT  
GGCTTCAGTAAGTTCCAAGCCGAGTTCTCCCTGCATTGCGAGACCAATCTAGACGGCTCGTGTAGCAGCAGCTCG  
CCGCCGTTGCCAGTGCTGGGGCTCGGGGCGCTGCGGATCAGCTCTGACTCTTCTCGGACATCGAGTCTGACCTT  
GACCGAGACCCCAATAGTGCAACAGACTCGGATGGTAGTCCGCTGTCCAACAGCCAGCCTTCTTCCCAGTGGAG  
ATCTTGCCCTTCTCTACTTGGGCTGTGCCAAAGACTCCACCAACTTGGACGTGTTGGAGGAATTCGGCATCAAG  
TACATCTTGAAACGTCACCCCAATTTGCCGAATCTCTTTGAGAACGCAGGAGAGTTTAAATACAAGCAAATCCCC  
ATCTCGGATCACTGGAGCCAAAACCTGTCCCAGTTTTTCCCTGAGGCCATTTCTTTCATAGATGAAGCCCGGGGC  
AAGAACTGTGGTGTCTTGGTACATTGCTTGGCTGGCATTAGCCGCTCAGTCACTGTGACTGTGGCTTACCTTATG  
CAGAAGCTCAATCTGTGATGAACGATGCCTATGACATTGTCAAAATGAAAAATCCAACATATCCCTAACTTC  
AACTTCATGGGTGAGCTGCTGGACTTCGAGAGGACGCTGGGACTCAGCAGCCCATGTGACAACAGGGTTCCAGCA  
CAGCAGCTGTATTTTACCACCCCTTCCAACCAGAATGTATACCAGGTGGACTCTCTGCAATCTACGTGAAGACC  
CCACATCCCTCCTTGCTGGAATGTGTCTGGCCCTTCAGCAGTTTCTCTTGGCAGCATCAGCTGGGCTGCTTTCTT  
TGTGTGTGGCCCCAGGTGTCAAATGACACCAGCTGTCTGTACTAGACAAGGTTACCAAGTGC GGAATTGGTTAA  
TACTAACAGAGAGATTTGCTCCATTCTCTTTGGAATAACAGGACATGCTGTATAGATACAGGCAGTAGGTTTGCT  
CTGTACCCATGTGTACAGCCTACCCATGCAGGGACTGGGATTCGAGGACTTCCAGGCGCATAGGGTAGAACCAAA  
TGATAGGGTAGGAGCATGTGTTCTTTAGGGCCTTGTAAGGCTGTTTCCTTTTGCATCTGGAAGTACTATATAAT  
TGTCTTCAATGAAGACTAATTCAATTTTGCATATAGAGGAGCCAAAGAGAGATTTAGCTCTGTATTTGTGGTAT  
CAGTTTGGAAAAAAAATCTGATACTCCATTTGATTATTGTAAATATTTGATCTTGAATCACTTGACAGTGTG  
TTTGAATTGTGTTTGTGTTTTCTTTGATGGGCTTAAAAGAAATTATCCAAAGGGAGAAAGAGCAGTATGCCACT  
TCTTAAACAGAACAAAACAAAAAAGAAAATTGTGCTCTTTTCTAATCCAAAGGTATATTTGCAGCATGCTTG  
ACTTTACCAATTCTGATGACATCTTTACGGACACTATTATCACTAAGACCTTGTTATGGCGAAGTCTTTAGTCTT  
TTTCATGTATTTTCTCATGATTTTTTCTCTTTATGTAGTTTGACTATGCCTTACCTTTGTAAATATTTTTGCTT  
GTGTTGTGCGAAAGGGGATAATCTGGGAAAGACACCAATCATGGGCTCACTTTAAAAAAGAAAGATAAAAAA  
ACCTTCAGCTGTGCTAAACAGTATATTACCTCTGTATAAAATCTTCAGGGAGTGTACCTCAAATGCAATACTT  
TGGGTTGGTTTCTTTCTTTAAAAAATTTGTATAAACTGGAAGTGTGTGTGTGTGAGCATGGGTACCCATTTG  
ATAAGAGAAATGCATTTGATTGTGAAGAAGGGAGAGTTAAATCTCCATTATGTTGCTGGTGTAAAGTTTAGAGC  
TGAATTTATTATAAGAATGTAAACCTTAAATTATTAATAAATAACTATTTTGGCTATTGAAAAAAAAAAAAA  
AAAAAAA

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**FIGURE 594**

MIDTLRPVPFASEMAISKTVAWLNEQLELGNERLLLMDCRPQELYESSHIESAINVAIPGIMLRRLQKGNLPVRA  
LFTRGEDRDRFTRRCGTDTVVLYDESSSDWNENTGGESLLGLLLKKLKDEGCRAFYLEGGFSKFQAEFSLHCETN  
LDGSCSSSSPPLPVLGLGGLRISSDSSSDIESDLDRDPNSATDSGSPLSNSQPSFPVEILPFLYLGC AKDSTNL  
DVLEEFGIKYILNVTPNLPNLFENAGEFKYKQIPISDHWSQNLSQFFPEAISFIDEARGKNCGVLVHCLAGISRS  
VTVTVAYLMQKLNLSMNDAYDIVKMKKSNI SPNFNFMGQLLDFERTLGLSSPCDNRVPAQQLYFTTPSNQNVYQV  
DSLQST

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**FIGURE 595**

CCAGCCTCGGAGGGAGGGATTAGAAGCCGCTAGACTTTTTTCTCCCTCTCAGTAGCACGGAGTCCGAATTAA  
 TTGGATTTCACTTCACTGTTGAGGAGAACAAAACTATCTGGGCAGCTTCATTGAGAGAGATTCACTGACACTAAGAG  
 CCAGCGCTGCAGCTGGTGCAGAGAGAACCTCCGGCTTTGACTTCTGTCTCGTCTGCCCCAAGGCCGCTAGCCTCG  
 GCTTGGGAAGGCGAGGCGGAATTAAACCCCGCTCCGAGAGCGCACGTTTCGCGCGCGGTGCGTCCGCCATTGCCTG  
 CCCCAGGGGGCGTCTGGTAGGCACCCCGCCCTCTCCCGCAGCTCGACCCCATGATAGATACGCTCAGACCCGTG  
 CCCTTCGCGTCCGAAATGGCGATCAGCAAGACGGTGGCGTGGCTCAACGAGCAGCTGGAGCTGGGCAACGAGCGG  
 CTGCTGCTGATGGACTGCCGGCCGAGGAGCTATACGAGTCTGTCGCACATCGAGTCGGCCATCAACGTGGCCATC  
 CCGGGCATCATGCTGCGGCGCCTGCAGAAGGGTAACCTGCCGGTGCAGCGCGCTCTTCACGCGCGCGAGGACCGG  
 GACCGCTTACCCGGCGCTGTGGCACCACAGTGGTGTCTACGACGAGAGCAGCAGCGACTGGAACGAGAAT  
 ACGGGCGGCGAGTCGTTGCTCGGGCTGCTGCTCAAGAAGCTCAAGGACGAGGGCTGCCGGGCGTTCTACCTGGAA  
 GGTGGCTTCAGTAAGTTCCAAGCCGAGTTCTCCCTGCATTGCGAGACCAATCTAGACGGCTCGTGTAGCAGCAGC  
 TCGCCGCCGTTGCCAGTGTGTTGGGCTCGGGGGCCTGCCGATCAGCTCTGACTCTTCTCGGACATCGAGTCTGAC  
 CTTGACCGAGACCCCAATAGTGCAACAGACTCGGATGGTAGTCCGCTGTCCAACAGCCAGCCTTCTTCCAGTG  
 GAGATCTTGCCCTTCTCTACTTGGGCTGTGCCAAAGACTCCACCAACTTGGACGTGTTGGAGGAATTCGGCATC  
 AAGTACATCTTGAACGTACCCCCAATTTGCCGAATCTCTTTGAGAACGCAGGAGAGTTTAAATACAAGCAAATC  
 CCCATCTCGGATCACTGGAGCCAAAACCTGTCCAGTTTTTCCCTGAGGCCATTTCTTTCATAGATGAAGCCCGG  
 GGCAAGAACTGTGGTGTCTTGGTACATTGCTTGGCTGGCATTAGCCGCTCAGTCACTGTGACTGTGGCTTACCTT  
 ATGCAGAAGCTCAATCTGTCGATGAACGATGCCTATGACATTGTCAAATGAAAAATCCAACATATCCCCTAAC  
 TTCAACTTCATGGGTGAGCTGCTGGACTTCGAGAGGACGCTGGGACTCAGCAGCCCATGTGACAACAGGGTTCCA  
 GCACAGCAGCTGTATTTTACCACCCCTTCCAACCAGAATGTATACCAGGTGGACTCTCTGCAATCTACGTGAAAG  
 ACCCCACACCCCTCTTGTGGAATGTGTCTGGCCCTTCAGCAGTTTCTCTTGGCAGCATCAGCTGGGCTGCTTT  
 CTTTGTGTGTGGCCCCAGGTGTCAAATGACACCAGCTGTCTGTACTAGACAAGTTACCAAGTGCAGGAATTGGT  
 TAATACTAACAGAGAGATTGCTCCATTCTCTTTGGAATAACAGGACATGCTGTATAGATACAGGCAGTAGGTTT  
 GCTCTGTACCCATGTGTACAGCCTACCCATGCAGGGACTGGGATTCGAGGACTTCCAGGCGCATAGGGTAGAACC  
 AAATGATAGGGTAGGAGCATGTGTTCTTTAGGGCCTTGTAAGGCTGTTTCTTTTGCATCTGGAAGTACTATAT  
 AATTGTCTTCAAGTGAAGACTAATTCAATTTTGCATATAGAGGAGCCAAAGAGAGATTTAGCTCTGTATTTGTG  
 GTATCAGTGTGGAAAAGAGAAATCTGATACTCCATTTGGATTATTGTAAATATTTGATCTTGAATCACTTGACA  
 GTGTTTGTGTTGAATTGTGTTTGTGTTTTTCTTTGATGGGCTTAAAAGAAATTATCCAAAGGGAGAAAGAGCAGTA  
 TGCCACTTCTTAAAACAGAACAAAACAAAAAAGAAAATTGTGCTCTGTTGTAATCCAAAGGGGAGATTTGCAGC  
 ATGCTTGACTTTACCAATTCTGATGACATCTTTACGGACACTATTATCACTAAGACCTTGTTATGGCGAAGTCTT  
 TAGTCTTTTTCATGTATTTTCTCATGATTTTTTCTCTTTATGTAGTTTGAGTATGCCTTACCTTTGTAAATATT  
 TTTGCTTGTGTTGTGCAAGGGGATAATCTGGGAAAGACACCAAATCATGGGCTCACTTTAAAA

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**FIGURE 596**

MIDTLRPVPPFASEMAISKTVAWLNEQLELGNERLLLMDCRPQELYESSHIESAINVAIPGIMLRRRLQGNLPVRA  
LFTRGEDRDRFTRRCGTDTVVLYDESSDWNENTGGESLLGLLLKKLKDEGCRAFYLEDEARGKNCGVLVHCLAG  
ISRSVTVTVAYLMQKLNLMSMNDAYDIVKMKKSNI SPNFNFMGQLLDFERTLGLSSPCDNRVPAQQLYFTTPSNQN  
VYQVDSLQST

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**FIGURE 597**

GCTGAGTCCAAGAGATAGCAAATCGAGTCTTAAATAATCCGGGGAGAAAGACGCCCGGGTAGATTTGAGGTGCAG  
CCTTGGAGGGAGGGATTAGAAGCCGCTAGACTTTTTTCTCCCTCTCAGTAGCACGGAGTCCGAATTAATTGG  
ATTTCACTTCACTGGGGAGGAACAAAACTATCTGGGCAGCTTCATTGAGAGAGATTCATTGACACTAAGAGCCAG  
CGGCTGCAGCTGGGTGCAGAGAGAACCTCCGGCTTTACTTCTGTCTCGTCTGCCCAACCGCTAGCCTCGGCTTG  
GGTAAGGCGAGGCGGAATTAAACCCCGCTCCGAGAGCGGCAGCTTCGCGCGCGGTGCGCTCGGCCTATGCCTGCC  
CCGAGGGGCGTCTGGTAGGCACCCCGCCCTCTCCCGCAGCTCGACCCCAATGATAGATACGCTCAGACCCGTGCC  
CTTCGCGTCGGAAATGGCGATCAGCAAGACGGTGGCGTGGCTCAACGAGCAGCTGGAGCTGGGCAACGAGCGGCT  
GCTGCTGATGGACTGCCGGCCGAGGAGCTATACGAGTCGTCGCACATCGAGTCGGCCATCAACGTGGCCATCCC  
GGGCATCATGCTGCCGGCGCCTGCAGAAGGGTAACCTGCCGGTGCGCGCGCTCTTCACGCGCGCGAGGACCGGGA  
CCGCTTCAACCGCGCTGTGGCACCGACACAGTGGTGCTCTACGACGAGAGCAGCAGCGACTGGAACGAGAATAC  
GGGCGGCGAGTCGGTGCTCGGGCTGCTGCTCAAGAAGCTCAAGGACGAGGGCTGCCGGGCGTTCTACCTGGAAGG  
TGGCTTCAGTAAGTTCCAAGCCGAGTTCTCCCTGCATTGCGAGACCAATCTAGACGGCTCGTGTAGCAGCAGCTC  
GCCGCCGTTGCCAGTGCTGGGGCTCGGGGGCCTGCCGATCAGCTCTGACTCTTCCTCGGACATCGAGTCTGACCT  
TGACCGAGACCCCAATAGTGCAACAGACTCGGATGGTAGTCCGCTGTCCAACAGCCAGCCTTCCTTCCCAGTGG  
GATCTTGCCCTTCTCTACTTGGGCTGTGCCAAAGACTCCACCAACTTGGACGTGTTGGAGGAATTCGGCATCAA  
GTACATCTTGAACGTCACCCCAATTTGCCGAATCTCTTTGAGAACGCAGGAGAGTTTAAATACAAGCAAATCCC  
CATCTCGGATCACTGGAGCCAAAACCTGTCCAGTTTTTCCCTGAGGCCATTTCTTTCATAGATGAAGCCCGGG  
CAAGAACTGTGGTGTCTTGGTACATTGCTTGGCTGGCATTAGCCGCTCAGTCACTGTGACTGTGGCTTACCTTAT  
GCAGAAGCTCAATCTGTCGATGAACGATGCCTATGACATTGTCAAAATGAAAAATCCAACATATCCCCTAACTT  
CAACTTCATGGGTCAGCTGCTGGACTTCGAGAGGACGCTGGGACTCAGCAGCCCATGTGACAACAGGGTTCCAGC  
ACAGCAGCTGTATTTTACCACCCCTTCCAACCAGAATGTATACCAGGTGGACTCTCTGCAATCTACGTGAAGAC  
CCCACACCCCTCCTTGCTGGAATGTGTCTGGCCCTCAGCAGTTTCTCTTGGCAGCATCAGCTGGGCTGCTTTCT  
TTGTGTGTGGCCCCAGGTGTCAAAATGACACCAGCTGTCTGTACTAGACAAGGTTACCAAGTGCGGAATTGGTTA  
ATACTAACAGAGAGATTTGCTCCATTCTCTTTGGAATAACAGGACATGCTGTATAGATACAGGCAGTAGGTTTGC  
TCTGTACCCATGTGTACAGCCTACCCATGCAGGGACTGGGATTCGAGGACTTCCAGGCGCATAGGGTAGAACCAA  
ATGATAGGGTAGGAGCATGTGTTCTTTAGGGCCTTGTAAGGCTGTTTCTTTTGCATCTGGAAGTACTATATAA  
TTGTCTTCAATGAAGACTAATTCAATTTTGCATATAGAGGAGCCAAAGAGAGATTTAGCTCTGTATTTGTGGTA  
TCAGTTTGGAAAAAAATCTGATACTCCATTTGATTATTGTAAATATTTGATCTTGAATCACTTGACAGTGTGTTG  
TTTGAATTGTGTTTGTGTTTTTCTTTGATGGGCTTAAAGAAATTATCCAAAGGGAGAAAGAGCAGTATGCCACT  
TCTTAAACAGAACAAAACAAAAA

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**FIGURE 598**

MIDTLRPVPFASEMAISKTVAWLNEQLELGNERLLLMDCRPQELYESSHIESAINVAIPGIMLRRLQKGNLPVRA  
LFTRGEDRDRFTRRCGTDTVVLYDESSSDWNENTGGESVLGLLLKKLKDEGCRAFYLEGGFSKFQAEFSLHCETN  
LDGSCSSSPPLPVLGLGGLRISSDSSSDIESDLDRDPNSATSDGSPLSNSQPSFPVEILPFLYLGC AKDSTNL  
DVLEEFGIKYILNVTPNLPNLFENAGEFKYKQIPISDHWSQNLSQFFPEAISFIDEARGKNCGVLVHCLAGISRS  
VTVTVAYLMQKLNLSMNDAYDIVKMKKSNI SPNFNFMGQLLDFERTLGLSSPCDNRVPAQQLYFTTPSNQNVYQV  
DSLQST

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**FIGURE 599**

CCGGCGGCGCCTCAGGTCGCGGGGCGCCTAGGCCTGGGTTGTCTTTGCATCTGCACGTGTTTCGCAGTCGTTTCC  
 GCG**ATG**CTGCCTCTGCTGCGCTGCGTGCCCCGTGTGCTGGGCTCCTCCGTCGCCGGCCTCCGCGCTGCCGCGCCC  
 GCCTCGCCTTTCCGGCAGCTCCTGCAGCCGGCACCCCGGCTGTGCACCCGGCCCTTCGGGCTGCTCAGCGTGCGC  
 GCAGGTTCCGAGCGGCGCGGCCGGCCTCCTGCGGCCTCGCGGACCCTGCGCCTGTGGCTGTGGCTGCGGCTCGCTG  
 CACACCGACGGAGACAAAGCTTTTGTGATTTCTTGAGTGATGAAATTAAGGAGGAAAGAAAAATTCAGAAGCAT  
 AAAACCCCTCCCTAAGATGTCTGGAGGTTGGGAGCTGGAAGTGAATGGGACAGAAGCGAAATTAGTGCAGGAAAGTT  
 GCCGGGGAAAAAATCACGGTCACTTTCAACATTAACAACAGCATCCCACCAACATTTGATGGTGAGGAGGAACCC  
 TCGCAAGGGCAGAAGGTTGAAGAACAGGAGCCTGAACTGACATCAACTCCCAATTTCTGTGGTTGAAGTTATAAAG  
 AATGATGATGGCAAGAAGGCCCTTGTTGTTGGACTGTGATTATCCAGAGGATGAGGTTGGACAAGAAGACGAGGCT  
 GAGAGTGACATCTTCTCTATCAGGGAAGTTAGCTTTTCACTGCGAGTCTGAATGGAAGGATACTAATTAT  
 AACTCAACACAGATTCTTGGACTGGGCCTTATATGACCACCTAATGGATTTCTTGCCGACCGAGGGGTGGAC  
 AACACTTTTGCAGATGAGCTGGTGGAGCTCAGCACAGCCCTGGAGCACCAGGAGTACATTACTTTTCTTGAAGAC  
 CTCAAGAGTTTTGTCAAGAGCCAG**TAG**AGCAGACAGATGCTGAAAGCCATAGTTTTCATGGCAGGCTTTGGCCAGT  
 GAACAAATCCTACTCTGAAGCTAGACATGTGCTTTGAAATGATTATCATCCTAATATCATGGGGGAAAAAATACC  
 AAATTTAAATTATATGTTTTGTGTTCTCATTATTATCATTTTTTTCTGTACAAATCTATTATTTCTAGATTTTT  
 GTATAACATGATAGACATAAAATTGGTTTATCTCCTCCGCTGAGTCTTCCTAGAAGTACCTGCTGGGTTCTCAGT  
 TCCAGTTCCCATCCTTTGATTGATCACTCTCCCTGACATCCACCTGTATGACTTTGTCACCAATGCTGTCTTCT  
 CTTTCTCCAATCAAGAAATAATAATCCCTCGAGTTTACAAAACAAAAAAAAAAAAA

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**FIGURE 600**

MLPLLRCVPRVLGSSVAGLRAAAPASPFRQLLPAPRLCTRPFGLLSVRAGSERRPGLLRPRGPCACGCGCGLH  
TDGDKAFVDFLSDEIKEERKIQKHKTLPKMSGGWELELNGTEAKLVRKVAGEKITVTFNINNSIPPTFDGEEEPS  
QGQKVEEQEPELTSTPNFVVEVIKNDDGKKALVLDCHYPEDEVGQEDAESEDFSIREVSFQSTGESEWKDTNYT  
LNTDSLWALYDHLMDFLADRGVDNTFADELVELSTALEHQEYITFLEDLKSFVKSQ



**FIGURE 601**

**FIGURE 601**

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**FIGURE 602**

MVADPPRDSKGLAAAEP TANGGLALASIEDQGAAAGGYCGSRDQVRRCLRANLLVLLTVVAVVAGVALGLGVSGA  
GGALALGPERLSAFVFP GELLRLRLMIILPLVVCSLIGGAASLDPGALGRLGAWALLFFLVTTLLASALGVGLA  
LALQPGAASAAINASVGAAGSAENAPSKEVLDSFLDLARNIFPSNLVSAAFRSYSTTYEERNITGTRVKVPVGQE  
VEGMNILGLVVFAIVFGVALRKLGP EGELLIRFFNSFNEATMVLVSWIMWYAPVGIMFLVAGKIVEMEDVGLLFA  
RLGKYILCCLLGHAIHGLLVLP LIYFLFTRKNPYRFLWGIVTPLATAFGTSSSSATLPLMMKCVEENNGVAKHIS  
RFILPIGATVNMDGAALFQCVA AVFIAQLSQQSLDFVKIITILVTATASSVGAAGIPAGGVLT LAIILEAVNLPV  
DHISLILAVDWLVDRSCTVLNVEGDALGAGLLQNYVDRTESRSTEP ELIQVKSELPLDPLPVPT EEGNPLLKH YR  
GPAGDATVASEKESVM

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**FIGURE 603**

GGGATTTTTAAAAAATCAAAATACAAATCCAACCTTTTTGAGTTTTCGTTGTCATTGCTCTTATCTTTCCTGAGTC  
 ACTTCCCATTTTTCCAAACTCAGCAACCCAGTTTGCGAGTCTGGTTTTCATGAACCTTTGTAAGGTGTTTGGTGCG  
 GTCACRGTGTATACTTGCCGTGTAGTATTTGACTCAGCGCATCTGCCTTGAGTCATTTTACGCGGCCATTTAC  
 TACTGCCGTTGAGCCCTGTCCACGCCTTGGGAGTGTTGATATGTTGAGAGTTTTCTGTCTGGCTGRGGAGGGATC  
 ATTTAGTTTTTGCGGACGTATGTTGCACTGAGGATTTAGGGAGAGAGCAAGATTTCTGTTGAGGAGGTTTCAGAAG  
 TATAAGGAATCGGGAGAGTAGATAGGAGTGAAGCATTGGCAGCGTAAAGAAGCTTGGCTTAGCTTTAATGGATT  
 AGGGAGAGATTGCTATCTAGCATTATTACATGTTATTGTTCTCTTTGCTATTTTATACACCTAGAACAACCTTTC  
 CCTCGGGGTTAACAAACATCTTCAACTCTGTTTTCTGTATGGCTCCTGACTCTTACCTTTGTTTTAGGAGGCTTC  
 CCTCTTCAGAGGAACTGGGAGAAGCCAATTTCCACTGCTTCTTTTTCTGTGCCTTTTTAACACTCAAACCCAG  
 AACACTTAATCCTCTGCAGCTCGTGCAAAATTCAGTCTGTAATTTAAATGTGTGCACGGTACACTGCTGACCA  
 TGGGCATGTCTATTGTTTGTATCTGTAATGTGTATGTCCATTTAGTGTGTCTGTTTTAGTATGCAGGTGATAG  
 ACTAGAGAACAAGACCTCTGTCTCCGTAGCATCCTGGAGCAGTCTGAATGCCAGAAATGATAACCGTTTTGCTAC  
 AGCATTTGTAATTGCTTGTGTGCTTAGCCTCATTTCACCATCTACATGGCAGCCTCCATTGGCACAGACTTCTG  
 GTATGAATATCGAAGTCCAGTTCAAGAAAATTCAGTGATTTGAATAAAAGCATCTGGGATGAATTCATTAGTGA  
 TGAGGCAGATGAAAAGACTTATAATGATGCATTTTTTCGATACAATGGCACAGTGGGATTGTGGAGACGGTGTAT  
 CACCATACCCAAAAACATGCATTGGTATAGCCCACCAGAAAGGACAGAGTCATTTGATGTGGTCACAAAATGTGT  
 GAGTTTCACACTAACTGAGCAGTTCATGGAGAAATTTGTTGATCCCGGAAACCACAATAGCGGGATTGATCTCCT  
 TAGGACCTATCTTTGGCGTTGCCAGTTCCTTTTACCTTTTGTGAGTTTAGGTTTGATGTGCTTTGGGGCTTTGAT  
 CGGACTTTGTGCTTGCATTTGCCGAAGCTTATATCCCACCATTGCCACGGGCATTCTCCATCTCCTTGCAAGTCT  
 GTGTACACTGGGCTCAGTAAGTTGTTATGTTGCTGGAATTGAACTACTCCACCAGAACTAGAGCTCCCTGACAA  
 TGTATCCGGTGAATTTGGATGGTCTTCTGCCTGGCTTGTGTCTCTGCTCCCTTACAGTTCATGGCTTCTGCTCT  
 CTTTATCTGGGCTGCTCACACCAACCGGAAAGAGTACACCTTAATGAAGGCATATCGTGTGGCATGAGCAAGAAA  
 CTGCCTGCTTTACAATTGCCATTTTTATTTTTTAAATAATACTGATATTTTCCCCACCTCTCAATTGTTTTTA  
 ATTTTTATTTGTGGATATACCATTTTATTATGAAAATCTATTTTATTATACACATTACCACTAAATACACACT  
 TAATACCACTAAAATTTATGTGGTTTACTTTAAGCGATGCCATCTTCAAATAAACTAATCTAGGTCTAGACAGA  
 AAGAAATGGATAGAGACTTGACACAAATTTATGAAAGAAAATTGGGAGTAGGAATGTGACCGAAAACAAGTTGTG  
 CTAATGTCTGTTAGACTTTTCAGTAAACTAAAGTAACTGTATCTGTTCAACTAAAACTCTATATTAGTTTCTT  
 TGGGAAACCTCTCATCGTCAAACTTTATGTTCACTTTGCTGTTGTAGATAGCCAGTCAACCAGCAGTATTAGTG  
 CTGTTTTCAAAGATTTAAGCTCTATAAAATTTGGGAAATTATCTAAGATCATTTTCCCTAAGCATTGACACATAGC  
 TTCATCTGAGGTGAGATATGGCAGCTGTTTGTATCTGCACTGTGTCTGTCTACAAAAAGTGAAAAATACAGTGTT  
 TACTTGAAATTTTAACTTTGTAAGTGAAGAATTCAGTTTCCGCGGAGGATTAGTATTATTTTTAACTCTC  
 CGTAAGATTTTCACTACCACCAAATGTTTTGGATTTTTTTCTTTCTTCCATACATACCAGGGTTATTAAAAGT  
 GTGCTTTCTTTTACATTATATTACAGTTACAAGGTAAAATTCCTCAACTGCTATTTATTTATTCCAGCCAGTA  
 CTATAAAGAACGTTTCACCATAATGACCCTCCAGAGCTGGGAAACCTACCACAAGATCTAAAGTTCTGGCTGTCC  
 ATTAACCTCCAACATATGGTCTTTATTTCTTGTGTAATATGATGTGCTTTCTTGCCTAAATCCCTTCTGGTG  
 TGTATCAACATTATTTAATGTCTTCTAATTCAGTCATTTTTTTATAAGTATGTCTATAAACATTGAACTTTAAAA  
 AACTTATTTATTTATCCACTACTGTAGCAATTGACAGATTAAAAAATGTAACCTCATAATTTCTTACCATAAC  
 CTCAATGTCTTTTTTAAAAAATAAAATTAATAATGAAAAGAGAAA

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**FIGURE 604**

MDNRFATAFVIACVLSLISTIYMAASIGTDFWYEYRSPVQENSSDLNKS IWDEFISDEADEKTYNDALFRYNGTV  
GLWRR CITIPK NMHWYSPPERTESFDVVT KCVSFTLTEQFMEKFVDPGNHNSGIDLLR TYLWRCQFLLPFVSLGL  
MCFGALIGLCACICRS LYPTIATGILHLLAGLCTLG SVSCYVAGIELLHQKLELPDNVSGEFGWSFCLACVSAPL  
QFMASALFIWAAHTNRKEY TLMKAYRVA

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**FIGURE 605**

GGCACGAGGCTGCTGTTTGTCTACTTCCTCCTGCTTCCCCGCCGCCGCCGCCATCATGAGGGAAATCGTGCA  
CTTGCAGGCCGGGCAGTGCGGCAACCAAATCGGCGCCAAGTTTTGGGAGGTGATCAGCGATGAGCACGGCATCGA  
CCCCACGGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAACGCATCAACGTGTACTACAATGAGGCCACCGG  
CGGCAAGTACGTGCCCCGCGCCGTGCTCGTGGATCTGGAGCCCCGGCACCATGGACTCCGTGCGCTCGGGGCCCTT  
CGGGCAGATCTTCCGGCCGGACAACCTTCGTTTTTCGGTCAGAGTGGTGCTGGGAACAACCTGGGCCAAGGGGCACTA  
CACAGAAGGCGCGGAGCTGGTGGACTCGGTGCTGGATGTTGTGAGAAAAGGAGGCTGAGAGCTGTGACTGCCTGCA  
GGGTTTTCCAGCTGACCCACTCCCTGGGTGGGGGGACTGGGTCTGGGATGGGTACCCTCCTCATCAGCAAGATCCG  
GGAGGAGTACCCAGACAGGATCATGAACACGTTTAGTGTTGGTGCCCTTCGCCCAAAGTGTGAGACACAGTGGTGGA  
GCCCTACAACGCCACCCTCTCAGTCCACCAGCTCGTAGAAAACACAGACGAGACCTACTGCATTGATAACGAAGC  
TCTCTACGACATTTGCTTCAGAACCCTAAAGCTGACCACGCCCACCTATGGTGACCTGAACCACCTGGTGTCTGC  
TACCATGAGTGGGGTCACCACCTGCCTGCGCTTCCCAGGCCAGCTCAATGCTGACCTGCGGAAGCTGGCTGTGAA  
CATGGTCCCGTTTCCCCGGCTGCACTTCTTCATGCCCGGCTTTGCCCCACTGACCAGCCGGGGCAGCCAGCAGTA  
CCGGGCGCTGACCGTGCCCGAGCTCACCCAGCAGATGTTTGATGCCAAGAACATGATGGCTGCCTGCGACCCCCG  
CCATGGCCGCTACCTGACGTTGCCGCCGTGTTTCAGGGGCCGCATGTCCATGAAGGAGGTGGATGAGCAAATGCT  
TAATGTCCAAAACAAAAACAGCAGCTATTTTGTGAGTGAGTCCCCAACATGTGAAAACGGCTGTCTGTGACAT  
CCCACCTCGGGGGCTAAAAATGTCCGCCACCTTCATTGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCAT  
CTCCGAGCAGTTCACGGCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTACACGGGCGAGGGCATGGACGAGAT  
GGAGTTCACCGAGGCCGAGAGCAACATGAATGACCTGGTGTCCGAGTACCAGCAGTACCAGGATGCCACAGCCGA  
GGAGGAGGGCGAGTTTCGAGGAGGAGGCTGAGGAGGAGGTGGCCTAGAGCCTTCAGTCACTGGGGAAAGCAGGGAA  
GCAGTGTGAACCTCTTTATTCACTCCCAGCCTGTCTGTGGCCTGTCCCACTGTGTGCACTTGCTGTTTTCCCTGT  
CCACATCCATGCTGTACAGACACCACCATTAAGCATTTCATAGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AA

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**FIGURE 606**

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGSDQLERINVYYNEATGGKYVPRAVLVDLEPGTMDS  
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLOGFQLTHSLGGGTGSGMGTL  
LISKIREEYPDRIMNTFSVVPSPKVS DTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTPTYGDL  
NHLVSATMSGVTTCLRFPGLNADLRKLAVNMVPFRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMM  
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQNKNSYFVEWIPNNVKTAVCDIPPRGLKMSATFIGNSTAIQ  
ELFKRISEQFTAMFRRKAFLHWYTGE GMDMEFTEAESNMNDLVSEYQQYQDATAEEEEGEFEEEEEEVA

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**FIGURE 607**

CTATCAATCTCCAGAGCTTTTTCTTTTTAAGTGTGAGCGAGTTTATTAGAGAAGTAAAGAGACCCAAGAGTGCCCT  
 ACTCCATAGACAGAGCAGCCACTGTGACACTGTACCCATTAAACACTAACTCTCCATTGCCCCCTCCAGCAACCCC  
 TAGCACCCACTGTCTACTTTCTGTCTCTATGTGGTTGTCTATTTGAGGGACATCACATAAGTGGAGTCATATATT  
 TGTCCTTTCATGTCTCCCTTATTTCAATTTAGCATAACGTTTTCAAGGGTTTCCTGTGTTGTGAATATATCAGAAT  
 TTCATTCTCTTTTTAAGGTAGAATCATATCATTTTTAAACATTTTCAGTTGGACCATCTAAGTTTCAGTCCTTCATT  
 TTCAACAATTAAAAACAGCCCTCAACCGGGTGCATCTCACGTTAGCTAGAGACAGAAGTGGAGCTAGAAGTCAG  
 ATCTCTTACCAAAGTTGCCTTTCTTCTTCTGTGGGTAAAGTGGGGCACCCTTGGGACGCTGTGCTGGGCGTACATG  
 GGTGCTTGATGAAGTTACTTGGTGGACTGATGTGATTGATGTCCAACATGTATGCAGGGACAGAGGCTATGGTCC  
 CTACAGAGCAGGCATGGAGAGAAGGAGAAATACATACGGGCAGGAGCCAGGAGAGGGAGGGTGTAGTGAGCAGAG  
 ACCGCGCCACTGCACTCCAGCCTGAGTGACAGAGTGAGAATCCATCTAAAAAATTGCTTACTAAAGAAGTGGTCT  
 CCTGAGGTCTTAAGACGTTCTTGGCAATGTCTTGAGTGGGTGGGAGAGAGCCTCCAGTCATTGAGCTGTGGAATT  
 TCAGAGGTGAGAACCACACCTAACCCCAATTACTTTCCCTGTTTGCCCTCAGTGACACAGCTGCAGGAACCCCTG  
 GTGGGTGTTGTATTAAGTAAATTTGACCTTTATTCTTTGAGATCTGTGAAATGTTGTCTTCTGAGGGGCCACGT  
 GTATCTGTAGTGCTGAGGACTCCTTGGGGCCTCTGAAGTCACAGAGAGAACCCTGCAGGGTGGGGGACCAGTGTGT  
 GACAGCCCTGCTTTGCATTTTCTTTGAGAAGTGCTGTCAATTTTGCAATTTCTCTCCACCAGGGGAATCTTCAATCT  
 TGAGAGGTGTGATCATAACTTGCCTTGTTTCTTGTCGCTACAGAGAACGGAAGGCTCCCTTGATGGAACCTTAGAC  
 AGCAAGGCCAGATGCACATCCCTGGAAGGACATCCATGTTCCGAGAAGAACAGATGATCCCTGTATTTCAAGACC  
 TCTGTGCACTTATTTATGAACCTGCCCTGCTCCACAGAACACAGCAATTCCTCAGGCTAAGCTGCCGGTTCTTA  
 AATCCATCCTGCTAAGTTAATGTTGGGTAGAAAGAGATACAGAGGGGCTGTTGAATTTCCACATACCCTCCTTC  
 CACCAAGTTGGAACATCCTTGAAATTTGGGAAGAGCACAAGAGGAGATCCAGGGCAAGGCCATTGGGATATTCTG  
 AAACCTGAATATTTGTTTTGTGTCAGAGATAAAGACCTTTTCCATGCACCCTCATACACAGAAACCAATTTTCTT  
 TTTTATACTCAATCATTTCTAGCGCATGGCCTGGTTAGAGGCTGGTTTTTCTCTTTTCTTTTGGTCTTCAAAG  
 GCTTGTAGTTTTGGGTAGTCCTTGTTCTTTGAAATACACAGTGCTGACCAGACAGCCTCCCCCTGTCCCCTCTA  
 TGACCTCGCCCTCCACAAATGGGAAAACCAGACTACTTGGGAGCACCGCCTGTGAAATACCAACCTGAAGACACG  
 GTTCATTAGGCAACGCACAAAACAGAAAATGAAGGTGGAACAAGCACATATGTTCTTCAACTGTTTTTGTCTAC  
 ACTCTTTCTCTTTTCTCTACATGCTGAAGGCTGAAAGACAGGAAAGATGGTGCCATCAGCAATATTATTCTTA  
 ATTGAAAACCTGAAATGTGTATGTTTCTTACTAATTTTTTAAAAATGTATTCCTTGCCAGGGCAGGCAAGGTCGTC  
 ACGCCTGTAATCCCAGCACTTCAGGAGGCTGAGGTGGGCGGATC

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**FIGURE 608**

ATCTCACGTTAGCTAGAGACAGAACTGGAGCTAGCAGTCAGATCTCTTACAAAGTTGCCTTTCTTCTTCTGTGGG  
TAAGTGGGGCACCCCTTGGGACGCTGTGCTGGGCGTACATGGGTGCTTGATGAAGTTACTTGGTGGACTGATGTGA  
TTGATGTCCAACATGTATGCAGGGACAGAGGCTATGGTCCCTACAGAGCAGGCATGGAGAGAAGGAGAAATACAT  
ACGGNN  
NNNNNNNNNNNNNNNNNNNNNTTGCTTGCTAAAGAAGTGGTCTCCTTGAGGGTCTTAAGACGTTCTGACAATGTCTT  
GAGTGGGTGGGAGAGAGGCTGCAGTCATTGTGCTGTGGAATTCAGAGGTGAGAACCACACCTAACCAAAATTAC  
TTTCCCTGTTTGCCTCAGTGACACAGCTGCAGGAACCCTGGTGGGTGTTGTATTAAAGTAAATTTGACCTTTATTCT  
TTTGAGATCTGTGAAATGTTGTCTTCTGAGGGGCCACGTGTATCTGTAGTGTGAGGACTCCTTGGGCCTCTGA  
AGTCACAGAGAGAACCCTGCAGGGTGGGGGACCAGTGTGTGACAGCCCTGCTTTGCATTTTCTTTGAGAAGTGCT  
GTCATTTTGCATTTCTCTCCACCAGGGCAATCTTCAATCTTGAGAGGTGTGATCATAACTTGCCTTGTTTCTTGT  
CGCTACAGAGAACGGAAGGCTCCCTTGATGGAACCTTAGACAGCAAGGCCAGATGCACATCCCTGGAAGGACATCC  
ATGTTCCGAGAAGAACAGATGATCCCTGTATTTCAAGACCTCTGTGCACCTTATTTATGAACCTGCCCTGCTCCCA  
CAGAACACAGCAATTCCTCAGGCTAAGCTGCCGGTTCTTAAATCCATCCTGCTAAGTTAATGTTGGGTAGAAAGA  
GATACAGAGGGGCTGTTGAATTTCCACATACCCTCCTTCCACCAAGTTGGAACATCCTTGGAATTTGGAAGAGC  
ACAAGAGGAGATCCAGGGCAAGGCCATTGGGATATTCTGAAACTTGAATATTTTGTGTTTGTGTCAGAGATAAAGAC  
CTTTTCCATGCACCCTCATACAGAAACCAATTTTCTTTTTTATACTCAATCATTCTAGCGCATGGCCTGGTT  
AGAGGCTGGTTTTTTTCTCTTTTCTTTTGGTCTTCAAAGGCTTGATGTTTTGGGTAGTCCTTGTTCTTTGGAAAT  
ACACAGTGCTGACCAGACAGCCTCCCCCTGTCCCTCTATGACCTCGCCCTCCACAAATGGGAAAACAGACTAC  
TTGGGAGCACCGCCTGTGAAATACCAACCTGAAGACACCGTTTCAATCAGGCAACGCACAAAACAGAAAATGAAGG  
TGGAACAAGCACAGATGTTCTTCAACTGTTTTTGTCTACACTCTTCTCTTTTCTCTACCATGCTGAAGGCTGA  
AAGACAGGAAGATGGTGCCATCAGCAAATATTATTCTTAATTGAAAACCTGAAATGTGTATGTTTCTTACTAATT  
TTTAAAAATGTATTCCTTGCCAGGCCTAGACAAGGATCGCTCACGCCTGTATATCCAGCACTTCAGGTAGAGCT  
GAGGTGGGCGGTATCGACCTGAGGTCAGGTAGCTTTGAGACCAGCCTGATGAAACNNNNNNNNNNNNNNNNNNNN  
NN  
NNNNNNNNNNNNNNNNNNNNNTAGGTTGTAGTGTAGCGGACCTCGCGCCACTGGCACTCCTAGCTCTGAGTGACTA  
GAGTGAGAATCCATCTCAAAAAACAAATAAAACAAATTGCTTGCTAAAGAAGTGGTCTCCTGAGGTCTTAAGAC  
ATTCTGACAGTGCTTGTAGTGGGTGGGAGAGAGGCTGCTGTGCTTGCCTGTGGAATTTACAGATGAGAACCA  
CGCCTAGCCAAAATCACTTTTCTGTTTGCCTCAGTGACACAGCTGCAGGGACCCTCGTGATGTTGTATTAAAT  
AAATTTGACCTTTGCTCTTGTGAGATCTGTGAAATGTTGTCTTCTGAGGGGCCACATGCATCTATAGTGTGAGG  
ACTCCTTGGGCCTCTGAAGTCACAGAGAGAACCGAGCAGGTCTATGTTTTTGT



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**FIGURE 609**

LTLARDRTGASSQISYKVAFLLLWVSGAPLGRCAGRTWVLDEVTWWTDVQHVCRDRGYGPYRAGMERRRNTY  
GXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXLLAKEVVS

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**FIGURE 610**

AGTGCGCATCCGGACGTAGGAGGTGGAGGTTGTGGAATTCGCCGTTTCGAAAGCAGGGACTAAAAGCCCCACTTCG  
TCTTACGTTCCGAAAGGAAGGCGTCTGTTGAGCCTTTCTCTCAGTCGTGAGGGAGGCGTCGACGGCGTGC GGAAG  
TCCTGAGTTGAGGCTTGC GGGATCCTTTCCGGAGAAAGCGCAGGCTAAAGCCGCAGGTGAAG**ATGT**CCAACTACG  
TGAACGACATGTGGCCGGGCTCGCCGCAGGAGAAGGATTTCGCCCTCGACCTCGCGGTTCGGGCGGGTCCAGCCGGC  
TGTCGTTCGCGGTCTAGGAGCCGCTCTTTTTCCAGAAGCTCTCGGTCCCATTTCCCGCGTCTCGAGCCGGTTTTTCGT  
CCAGGAGTCGGAGGAGCAAGTCCAGGTCCCGTTCCCGAAGGCGCCACCAGCGGAAGTACAGGCGCTACTCGCGGT  
CATACTCGCGGAGCCGGTCGCGATCCCGCAGCCGCCGTTACCGAGAGAGGCGCTACGGGTTACCCAGGAGATACT  
ACCGGTCTCCTTCGCGGTACCGGTCCCGTCCCGTAGCAGGTTCGCGCTCTCGGGGAAGTCTGTAAGTGC GGAAGG  
CGTACGCGATCGCGCGGGGACAGCGCTACTACGGCTTTGGTTCGCACAGTGTACCCGGAGGAGCACAGCAGATGGA  
GGGACAGATCCAGGACGAGGTTCGCGGAGCAGAACCCCTTTTCGCTTAAGTGAAAAAGATCGAATGGAGCTGTTAG  
AAATAGCAAAAACCAATGCAGCGAAAGCTCTAGGAACAACCAACATTGACTTGCCAGCTAGTCTCAGAACTGTTT  
CTTCAGCCAAAAGAAACAAGCCGTGGAATAGGTGTATCAAGTAATGGTGCAAAGCCTGAAGTAAGTATTCTAGGTT  
TGTCGGAACAAAACCTTTCAGAAAGCCAACTGTCAAATCT**TCAT**TAGCCACTTATATCTTAGACTATACTTTTTGGG  
AAGTCTAGAGATGTATATAATGTGCTAAATTCAAAGTAGCAAACTCTGAAGATAGGCAATGTCAAACCCATGAAAA  
TGGGAGATTAATGAGCTTTATTTGGCCGTGCATGGTGCCTCATGCCTGTAATGAGGCAGATGGCTTGAGTCCAGG  
AGTTCAAGACTAGCCTGGGCAATGTGGCAAACCGCGTGTTTACAAAAAATACAAAAATTAGCCAGGCATGGTGG  
TGCATGCCTGTAGTCCCAGCTGTTTGGGAGGCTGAGGCAGGAGGATCTTTGAGCCTAGGATGCTAAGGTTGCAGT  
GAGCCAAGATGGCACCATTGCACTCTAGCCTGGGCAGCAGAGCGAGACCCTGTCTCAAAAAATACATTTATTTTT  
TTCATTTTCAGTTAACAGTGTACTCTTATAACACCGTTATTAGCTGGTACTTTGGTGATTTCTATTACTAGTTTT  
TCTAAGCTATTTACAGAGTGTGTGTAGCTTTTCAATTTGCAGCATTATGTTCCCACAAATTCTGTACTCAGCATATA  
CAGTATAGTTTATCTGCTCTATTTCTGTCTTATAGAAATCATGAATGTGGTCTGCAGACATTGATGAAGAAAATC  
TGTTGGTAATTGATACATGGGCTAAAGCATCAGAGGTTTAATTTGAAGTTTATGTTACACACTGAAAACCTTAGT  
TTTTTTGTTGGTAGATCCATGTGCATGCTAGAATTTGGGACAGGCACTATTTGCATAAAGTATTAAAGTCAATTT  
TTAAACTAAGCAAAGGTACACGTTGTAACGGTGGGGCATCTGTGAAAAAGATGTCCCTTTTCATAATATATGCAAT  
ATATTCCAGATGTTTTGAGAGATTACAGAAGAGGAGGCGCTTCACTTGCAGATAAGTTTATTATAATTCTCCA  
GAAATGTGCAGGATGTGCATTAGCAAATTGCACTGTACTTTTCACTCCAGCCTGGGTGACAGAGCAAGACTCCCG  
TCTCGGGGGCTT

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**FIGURE 611**

MSNYVNDMWPGSPQEKDSPSTSRSGGSSRLSSRSRSRSFSRSSRSHSRVSSRFSSRSRRSKRSRSRRRHQKRYR  
RYSRSYSRSRSRSRRYRERRYGFTRRYRSPSRYSRSRSRSRSRGRSYCGRAYAIARGQRYYGFGRTVYPEE  
HSRWRDRSRTRSRRTPFRLSEKDRMELLEIAKTNAAKALGTTNIDLPA SLRTVPSAKETSRGIGVSSNGAKPEV  
SILGLSEQNFQKANCQI

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**FIGURE 612**

GGACGTAGGAGGTGGAGGTTGTGGAATTCGCCGTTTCGAAAGCAGGGACTAAAAGCCCCACTTCGTCTTACGTTCC  
GAAAGGAAGGCGTCTGTTGAGCCTTTCTCTCAGTCGTGAGGGAGGCGTCGACGGCGTGCGGAAGTCCTGAGTTGA  
GGCTTGCGGGATCCTTTCCGGAGAAAGCGCAGGCTAAAGCCGCAGGTGAAGATGTCCAACCTACGTGAACGACATG  
TGGCCGGGCTCGCCGCAGGAGAAGGATTTCGCCCTCGACCTCGCGGTTCGGGCGGGTCCAGCCGGCTGTCGTGCGGG  
TCTAGGAGCCGCTCTTTTTCCAGAAGCTCTCGGTCCCATTCCCGCGTCTCGAGCCGGTTTTTCGTCCAGGAGTCGG  
AGGAGCAAGTCCAGGTCCCGTTCCCGAAGGCGCCACCAGCGGAAGTACAGGCGCTACTCGCGGTCTACTCGCGG  
AGCCGGTCGCGATCCCGCAGCCGCCGTTACCGAGAGAGGCGCTACGGGTTTACCAGGAGATACTACCGGTCTCCT  
TCGCGGTACCGGTCCCGGTCCCGTAGCAGGTGCGGCTCTCGGGGAAGGTCGTACTGCGGAAGGGCGTACGCGATC  
GCGCGGGGACAGCGCTACTACGGCTTTGGTCGCACAGTGTACCCGGAGGAGCACAGCAGATGGAGGGACAGATCC  
AGGACGAGGTGCGGGAGCAGAACCCCTTTTCGCTTAAGTGAAAAAGATCGAATGGAGCTGTTAGAAATAGCAAAA  
ACCAATGCAGCGAAAGCTCTAGGAACAACCAACATTGACTTGCCAGCTAGTCTCAGAACTGTTCTTCAGCCAAA  
GAAACAAGCCGTGGAATAGGTGTATCAAGTAATGGTGCAAAGCCTGAACGTGTCGGAAGGTAACAGAAGATGGA  
ACTCGAAATCCCAATGGAACCTACCCAGCAAAGAAGCATAGCTTTTAGCTCTAATAATTCTGTAGCAAAGCCA  
ATACAAAAATCAGCTAAAGCTGCCACAGAAGAGGCATCTTCAAGATCACCAAAAAATAGATCAGAAAAAAGTCCA  
TATGGACTGTGGATACCTATCTAAAAGAAGAAAACTGATGGCTAAGTTTGCATGAAAAGTCACTTTATTGCAAG  
TTAGTGTCTTAGCATTATCCCATCCCTTTGAGCCATTTCAGGGGTACTTGTGCATTTAAAAACCAACACAAAAAG  
ATGTAAATACTTAACACTCAAATATTAACATTTTAGGTTTCTCTTGAGATATGAGAGATAGCACAGATGGACCA  
AAGGTTATGCACAGGTGGGAGTCTTTTGTATATAGTTGTAAATATTGTCTTGGTTATGTAAAAATGAAATTTTTT  
AGACACAGTAATTGAACTGTATTCTGTTTTGTATATTTAATAAATTTCTTGTTTTCATTCTTAAAAA  
AAAAA

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**FIGURE 613**

CTTTTTCTCCATCTCAGAACCTTCCTGCCGTCGCGTTTGACCTCGCTGCTCCAGCCTCTGGGGCGCATTCCAAC  
CTTCCAGCCTGCGACCTGCGGAGAAAAAAATTACTTATTTTCTTGCCCCATACATACCTTGAGGCGAGCAAAAA  
AATTAAATTTTAACCA**ATG**AGGGAAATCGTGCACATCCAGGCTGGTCAGTGTGGCAACCAGATCGGTGCCAAGTTC  
TGGGAGGTGATCAGTGATGAACATGGCATCGACCCACCGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAC  
CGCATCTCTGTGTACTACAATGAAGCCACAGGTGGCAATATGTTCTCGTGCCATCCTGGTGGATCTAGAACCT  
GGGACCATGGACTCTGTTTCGCTCAGGTCCTTTTGGCCAGATCTTTAGACCAGACAACCTTGTATTTGGTCAGTCT  
GGGGCAGGTAACAACCTGGGCCAAAGGCCACTACACAGAGGGCGCCGAGCTGGTTGATTCTGTCTGGATGTGGTA  
CGGAAGGAGGCAGAGAGCTGTGACTGCCCTGCAGGGCTTCCAGCTGACCCACTCACTGGGCGGGGGCACAGGCTCT  
GGAATGGGCACTCTCCTTATCAGCAAGATCCGAGAAGAATACCCTGATCGCATCATGAATACCTTCAGTGTGGTG  
CCTTCACCCAAAGTGTCTGACACCGTGGTCGAGCCCTACAATGCCACCTCTCCGTCCATCAGTTGGTAGAGAAT  
ACTGATGAGACCTATTGCATTGACAACGAGGCCCTCTATGATATCTGCTTCCGCACTCTGAAGCTGACCACACCA  
ACCTACGGGGATCTGAACCACCTTGTCTCAGCCACCATGAGTGGTGTCAACACCTGCCTCCGTTTCCCTGGCCAG  
CTCAATGCTGACCTCCGCAAGTTGGCAGTCAACATGGTCCCCTTCCCACGTCTCCATTTCTTTATGCCTGGCTTT  
GCCCCCTCTCACCAGCCGTGGAAGCCAGCAGTATCGAGCTCTCACAGTGCCGGAACACCCAGCAGGTCTTCGAT  
GCCAAGGACATGATGGCTGCCTGTGACCCCGCCACGGCCGATACCTCACCCTGGCTGCTGTCTTCCGTGGTCTGG  
ATGTCCATGAAGGAGGTGATGAGCAGATGCTTAACGTGCAGAACAAGAACAGCAGCTACTTTGTGGAATGGATC  
CCCAACAATGTCAAGACAGCCGTCTGTGACATCCCACCTCGTGGCCTCAAGATGGCAGTCACCTTCATTGGCAAT  
AGCACAGCCATCCAGGAGCTCTTCAAGCGCATCTCGGAGCAGTTCACTGCCATGTTCCGCCGGAAGGCCTTCCTC  
CACTGGTACACAGGCGAGGGCATGGACGAGATGGAGTTCACCGAGGCTGAGAGCAACATGAACGACCTCGTCTCT  
GAGTATCAGCAGTACCAGGATGCCACCGCAGAAGAGGAGGAGGATTCGGTGAGGAGGCCGAAGAGGAGGCC**TAA**

GGCAGAGCCCCCATCACCTCAGGCTTCTCAGTTCCCTTAGCCGTCTTACTCAACTGCCCCCTTTCCTCTCCCTCAG  
AATTTGTGTTTGCTGCCTCTATCTTGTTTTTTGTTTTTTCTTCTGGGGGGGGGTCTAGAACAGTGCCTGGCACAT  
AGTAGGCGCTCAATAAATACTTGTTTGTTGAAAAAAAAAAAAAAAAA

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**FIGURE 614**

MREIVHIQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGSDQLDRISVYYNEATGGKYVPRAILVDLEPGTMDS  
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLOGFQLTHSLGGGTGSGMGTL  
LISKIREEYPDRIMNIFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL  
NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQVFDKMM  
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQKNSSYFVEWIPNNVKTAVCDIPPRGLKMAVTFIGNSTAIQ  
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEEEDFGEEAEEEA

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**FIGURE 615**

TGTTCGCGATCTTCTCAGGCTCTCCTAGCAGCATCCATCGCCGCCACCCTATCTTCACTGGCTTCACCTTCTCC  
 TTCTCTCTTCGTTGCTGAGCGACAAGCTTCCTAGCGCT**ATG**ACTGTCTCGTCTCCGTCCCGCAGCGGGAGCCGCTCG  
 TCCTGGGTGGCCGCTTGGCGCGCTTGGCTTTTCTCCCGAGGTTACTTTGGGGCCCTCCCGATGGTGACCACGG  
 CTCCGCTCCTTTACCCCGGATCCCGGACCCCGGGCACTGCCCCGACCCTCTTCTCCTCCTCATTTCCTAGGGG  
 GAGATGGCCCGTGTCTGACCCCCAGCCTCGCGCTCCAGCAGCTCTGCCAAACCGCAGCCTCGCCGTGGCGGGAG  
 GCACTCCTCGGGCAGCGCCGAAGAAGCGGGCGAAAGAAGAAGGTGCGGGCCAGCCCGCAGGGCAGCTGCCAGCC  
 GCTTCCACCACTACCAGCAGCACCGGCCGAGTCTGGAGGGCGGCCGAGCCCGCGACCGGCCGAGCGGAGCGC  
 AGGAGGTCCCGGGCCCGGCCGCGCCTTGGCCCCGAGTCTTGACGCCGAGCCGGCACGGAGGGAGCCAGCCCCG  
 ACCTTGCCCCGCTGCGGCCCGCGGCTCCCGGCCAAACCCCTCAGGAAAGAGGTTTTAAATCAAAGATGGGAA  
 AATCGGAGAAAATTGCCCTTCCCATGGCCAGCTTGTTCATGGTATACACTTGTATGAGCAACCAAAGATAAACA  
 GACAGAAAAGCAAATATAACTTGCCACTAACCAAGATCACCTCTGCAAAAAGAAATGAAAACAACTTTTGGCAGG  
 ATTCTGTTTTCACTGACAGAATTGAGAAGCAGGAAAAAAGCCTTTTAAAAATACCGAGAACATTAAAAATTGCG  
 ATTTGAAGAAATCAGCATTTCTAACTGAAGTGAGCCAAAAGGAAAATTATGCTGGGGCAAAGTTTAGTGATCCAC  
 CTCTCCTAGTGTTCTTCCAAAGCCTCCTAGTCACTGGATGGGAAGCACTGTTGAAAATTCCAACAAAACAGGG  
 AGCTGATGGCAGTACACTTAAAAACCCTCCTCAAAAGTTCAA**ACTTAG**ATTTCAGATTTCAGTATGTGTGTAAAC  
 ATAATTTTTCCCATATCCCTGGACTCTTGAGAAAATTGGTACAGAAATGGAAATTTGCCTTGTTGCAACATACAA  
 TTGCAAAAGATGAGTTTTAAAAAATTACATACAAACAGCTTGTATTATATTTTATATTTTGTAAATACTGTATACC  
 ATGTATTATGTGTATATTGTTCACTTGGAGAGGTATATTATAGTTTTGTTATGAAAGTATGTATTTTGCCCTGC  
 CCACATTGCAGGTGTTTTGTATATATACAATGGATAAATTTTAAGTGTGTGCTAAGGCACATGGAAGACCGATT  
 TATTTGCACAAGGTACTGAGATTTTTTTCAAGAAACAGCTGTCAAATCTCAAGGTGAAGATCTAAATGTGAACAG  
 TTTACTAATGCACTACTGAAGTTTAAATCTGTGGCACAATCAATGTAAGCATGGGGTTTGTCTCTAAATTGAT  
 TTGTAATCTGAAATTACTGAACAACCTCCTATTCCCATTTTTTGCTAAACTCAATTTCTGGTTTTGGTATATATCCA  
 TTCCAGCTTAATGCCTCTAATTTAATGCCAACAAAATTGGTTGTAATCAAATTTTAAATAATAATAATTTGGC  
 CCCCCCTTTTAAATAGTCTTGACTCTTTGTGTGTGACTGTTTCTCATGTTTGAATGTGTGACTAGGAGATGATT  
 TTGTGTGGTTGGATTTTTTTGACTTCTACTTTACTGGCTGAGTGTGAGCCGCCATGCCTGGCCATAATCTACATT  
 TTCTTACCAGGAGCAGCATTGAGGTTTTTGAGCATAGTACTTGACTACTCTAGAGGCTGAGACGGGAGCATCTCT  
 TGAGCCTGAGAAGTGAGATTGCAATTGAGCTAGGATCAGGCCACTGCACTCCAGCCTGGGTAACAGACGCTGTC  
 TCAAAAAAAGGCCAAGAGAAAGTAAGGGAGACAGA

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**FIGURE 616**

MTVVSVPQREPLVLGGRLAPLGFSSRGYFGALPMVTTAPPPLPRIPDPRALPPTLFLPHFLGGDGPCLTPQPRAP  
AALPNRSLAVAGGTPRAAPKKRRKKKVRASPAGQLPSRFHQYQQHRPSLEGGRSPATGPSGAQEVPGPAAALAPS  
PAAAAGTEGASPD LAPLRPAAPGQTPLRKEVLKSKMGKSEKIALPHGQLVHGIHLYEQPKINRQKSKYNLPLTKI  
TSAKRNNFWQDSVSSDRIQKQEKPKFKNTENIKNSHLKKS AFLTEVSQKENYAGAKFSDPPSPSVLPKPPSHW  
MGSTVENSQNRELMVHLKTLLKVQT



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**FIGURE 617A**

AGAGATGGGTCTCGCCATCACCATGTTGCCAGTCTGGTCTCCAACCTCCTGGGCTCAAGCGATCCTCCTGCCTTG  
GTCTCCCAAAGTGCTGGGATTACAGGTGTGAGCCCCACACCCGGCCTGAGTGAGTGGGTCTGAATGGTGACTG  
TTGTTGTCCATAGCCTTCCCCCTGCTTCTGAGAGTGGAGTCCCTCCCTCATGTTGGAGACCTCCCAAGGTCCAT  
GTGGTCCTATAGGGGCTGTTACAGCCTCCCTAGCCCCCTAACGTGTCAGGTAATACTGTATATATTCCATGAAATG  
TGAATAATTAGTTATATAATTCTAAGCACTTATTTTAAAAAACAGCAATGTGATGCTTAACTCTTCCACCTCT  
GTTCTGTCCCCCTTAGAAAACCACTGATAACTCTTTTTTTTTTGGAGACGGAGTCTTGCCCTGTCGCCCAGGCT  
GGAGTGTAGTGGCCTGATCTCGGCTCGGCTCATTGTAACCTCCGCCTCGGTTTGGAGCGATTCTCCTGCCTCAGC  
CTCCTGAGTAGCTGGGATTATAGGCGTGCACCACCACGCCTGGCTAATTTTTTGTATCTTTAGTAGGGACGGGTT  
TCACCATGTTGGCCAGAGTGGTCTTGAACCTCTGACCTTGTGATCCGCTCGCCTCAGCCTCCCAAAGTGCTGGGA  
TTACAGGCATGAGCCACCGTGCCTGTCTAGAACCACTGGTAACCTTAACTGXXXAGTGTCTAAGAACGGAAG  
CATCTGGGCTGGATGGAATTTAGCATCAAGCAGAGTCCCTTTCTGTTGAGAGTGTGTAAAGTGCATAAAGATG  
AAGCAGGCACCAGAAATCCTCGGCAGTGCCAACGGGAAGACTCCGAGCTGCGAGGTGAACCGCGAGTGTCTGTG  
TTCTCAGCAAAGCCCAGCTCTCCAGTAGCCTGCAGGAGGGGGTTCATGCAGAAGTTTAAACGGCCACGACGCCCTG  
CCCTTTATTCCAGCCGACAAGCTGAAAGATCTTACTTCCCGGGTGTAAATGGAGAACCCGGCGCACACGATGCC  
AAACTGCGTTTTGAGTCCCAGGAAATGAAAGGGATTGGGACACCCCTAACACTACCCCTATCAAAAATGGCTCT  
CCAGAAATTAAGCTGAAATCACCAAAACATACATGAATGGGAAGCCTCTCTTTGAATCTTCCATTTGTGGTGAC  
AGTGCTGCTGATGTGTCTCAGTCAGAAGAAAATGGACAAAACAGAAAACAAGGCGAGAAGGAACAGGAAGAGG  
AGCATAAAATATGACTCCTTGCTGGAGCAGGGCCTTGTCGAAGCAGCTCTTGTGTCTAAGATCTCAAGTCCTTCA  
GATAAAAAGATTCCAGCTAAGAAAGAGTCTTGTCCAAACACTGGAAGAGACAAAGACCACCTGTTGAAATACAAC  
GTTGGTGATTTGGTGTGGTCCAAAGTGTGGGTTACCCTTGGTGGCCTTGCATGGTTTCTGCAGATCCACTCCTT  
CACAGCTATACCAAACCTAAAGGTCAGAAAAGAGTGCACGCCAGTATCACGTACAGTTCTTTGGTGACGCCCCA  
GAAAGAGCTTGGATATTTGAGAAGAGCCTCGTAGCTTTTGAAGGAGAAGGACAGTTTGAAAAATTATGCCAGGAA  
AGTGCCAAGCAGGCACCCACGAAAGCTGAGAAAATTAAGCTATTGAAACCAATTTACAGGGAATTTAGGGGCCAG  
TGGGAAATGGGCATTGTTCAAGCAGAAGAAGCTGCAAGCATGTGAGTGGAGGAGCGGAAAGCCAAGTTCACCTTT  
CTCTATGTGGGGGACCAGCTTCATCTCAACCCTCAAGTAGCCAAGGAGGCTGGCATTGCTGCAGAGTCTTTGGGA  
GAAATGGCAGAATCCTCAGGAGTCAGTGAAGAAGCTGCTGAAAACCCCAAGTCTGTGAGAGAAGAGTGCATTCCC  
ATGAAGAGAAGGCGGAGGGCCAAACTGTGTAGCTCTGCAGAGACCCTGGAGAGTCACCCCGACATAGGGAAGAGT  
ACTCCTCAAAAGACGGCAGAGGCTGACCCAGAAAGAGGAGTAGGGTCTCCTCCTGGGAGGAAGAAGACCACAGTC  
TCCATGCCACGAAGCAGGAAGGGAGATGCAGCATCCCAGTTTTTGGTCTTCTGTCAAAAACACAGGGATGAGGTG  
GTAGCTGAGCACCAGATGCTTCAGGTGAGGAGATTGAAGAGCTGCTCAGGTACAGTGGAGTCTGCTGAGTGAG  
AAGCAGAGAGCACGCTACAACACCAAGTTTGCCCTGGTGGCCCTGTCCAGGCTGAAGAAGACTCTGGTAATGTA  
AATGGGAAAAAAGAAACCACACAAAGAGGATACAGGACCCTACAGAAGATGCTGAAGCTGAGGACACACCCAGG  
AAAAGACTCAGGACGGACAAGCACAGTCTTCGGAAGAGAGACACAATCACTGACAAAACGGCCAGAACAAGCTCT  
TACAAGGCCATGGAGGCAGCCTCCTCGCTCAAGAGCCAGGCAGCAACGAAAAATCTGTCTGATGCATGTAAACCA  
CTGAAGAAGCGAAATCGGGCTTCCACGGCAGCATCTTCAGCTCTTGGGTTTAGCAAAAGTTTCATCTCCTTCTGCA  
TCCTTAACTGAGAATGAGGTCTCGGACAGCCCGGAGACGAGCCCTCGGAGTCCCCATACGAAAGTGCAGACGAA  
ACACAACTGAAGTATCTGTCTCATCAAAAAGTCTGAGCGAGGAGTACTGCCAAAAGGAGTATGTGTGCCAG  
CTGTGTGAGAAGCCGGGCAGCCTCCTGCTCTGTGAAGGACCCTGCTGCGGAGCTTTCCACCTCGCCTGCCTTGGG  
CTTTCCCGGAGGCCAGAAGGGAGGTTACCTGCAGCGAGTGTGCCCTCAGGGATTCACTCATGTTTCGTGTGTAAA  
GAGAGCAAGACAGATGTTAAGCGCTGTGTGGTAACTCAGTGTGGAAAATTTTACCATGAGGCTTGTGTGAAAAAA  
TACCCTCTGACTGTATTTGAGAGCCGAGGTTTCCGCTGCCCCCTCCACAGCTGTGTGAGCTGCCATGCTTCCAAC  
CCTTCAAACCCAAGGCCGTCAAAGGTAAATGATGCGGTGTGTCCGCTGCCCCGTTCCTATCACAGCGGGGAT  
GCTTGTCTGGCAGCAGGATGCTCAGTGATCGCCTCCAACAGCATCATCTGCACTGCCCACTTCACTGCTCGGAAG  
GGGAAGCGACACCACGCCACGTCAACGTGAGCTGGTGTCTCGTGTGCTCCAAAGGGGGGAGCCTTCTGTGTGTG  
GAGTCCTGCCAGCGGCCTTCCACCCTGACTGCCTGAACATCGAGATGCCTGACGGCAGCTGGTTCTGCAATGAC  
TGCAGGGCTGGGAAGAAGCTGCACCTCCAGGATATCATTTGGGTGAAACTTGGGAACCTACAGATGGTGGCCGGCA  
GAAGTTTGCCATCCCAAAAATGTTCCCCCAAATATTAGAAAAATGAAGCACGAGATTGGAGAATTCCCTGTGTTT  
TTCTTTGGGTCTAAAGATTATTACTGGACGCATCAGGCGCGAGTGTCCCGTACATGGAGGGGGACCGGGGCAGC

**FIGURE 617B**

CGCTACCAGGGGGTCAGAGGGATCGGAAGAGTCTTCAAAAACGCACTGCAAGAAGCTGAAGCTCGTTTTTCGTGAA  
ATTAAGCTTCAGAGGGAAGCCCCGAGAAACACAGGAGAGCGAGCGCAAGCCCCCACCATACAAGCACATCAAGGTG  
AATAAGCCTTACGGGAAAGTCCAGATCTACACAGCGGATATTTTCAGAAATCCCTAAGTGCAACTGCAAGCCCACA  
GATGAGAATCCTTGTGGCTTTGATTTCGGAGTGTCTGAACAGGATGCTGATGTTTGAGTGCCACCCGCAGGTGTGT  
CCCGCGGGCGAGTTCTGCCAGAACCAGTGCTTCACCAAGCGCCAGTACCCAGAGACCAAGATCATCAAGACAGAT  
GGCAAAGGGTGGGGCCTGGTCGCCAAGAGGGACATCAGAAAGGGAGAATTTGTTAACGAGTACGTTGGGGAGCTG  
ATCGACGAGGAGGAGTGCATGGCGAGAATCAAGCACGCACACGAGAACGACATCACCCACTTCTACATGCTCACT  
ATAGACAAGGACCGTATAATAGACGCTGGCCCCAAAGGAAACTACTCTCGATTTATGAATCACAGCTGCCAGCCC  
AACTGTGAGACCCTCAAGTGGACAGTGAATGGGGACACTCGTGTGGGCCTGTTTGCCGTCTGTGACATTCTTGCA  
GGGACGGAGCTGACTTTTAACTACAACCTCGATTGTCTGGGCAATGAAAAACGGTCTGCCGGTGTGGAGCCTCC  
AATTGCAGTGGATTCTTCGGGGATAGACCAAAGACCTCGACGACCCTTTTCATCAGAGGAAAAGGGCAAAAAGACC  
AAGAAGAAAACGAGGCGGCGCAGAGCAAAAGGGGAAGGGAAGAGGCAGTCAGAGGACGAGTGCTTCCGCTGCGGT  
GATGGCGGGCAGCTGGTGCTGTGTGACCGCAAGTTCTGCACCAAGGCCTACCACCTGTCTGCGCTGGGCCTTGGC  
AAGCGGCCCTTCGGGAAGTGGGAATGTCCTTGGCATCATTGTGACGTGTGTGGCAAACTTCGACTTCATTTTGC  
CACCTCTGCCCAATTCGTTCTGTAAGGAGCACCAGGACGGGACAGCCTTCAGCTGCACCCCGGACGGGCGGTCC  
TACTGCTGTGAGCATGACTTAGGGGCGGCATCGGTGAGAAGCACCAGACTGAGAAGCCCCCCCCAGAGCCAGGG  
AAGCCGAAGGGGAAGAGGCGGCGGCGGAGGGGCTGGCGGAGAGTACAGAGGGCAAATAGCGCCAGGCGGGCCGCT  
TGGCCGGATCCAGGGGCGGTGCAGGGCGGCGGCCCTGCCTGCGGGAGAGGGCGAGCATGAACCTGGCCCGGAGGA  
CCCAGCTCGAGCCGCCAGGACACAGACGTACAGGCCTCCTCGGGAGGGAGCGCCTCCCCACCACTGAGCCATCCT  
CAGCAGCGTCCGCTGCGTCTGCACTGATGACCGTCTGAGCCAGCTCAGCGTTCCTGGACAAACAGCCTCACTCC  
TCAGCGTTACCGCCACACTTGAATTTCTCCGAATGTCAAGGTTCCCTCCCACTCTATTTTTTTTAGGTTAAAGTTA  
ATTGGCATATGGAATGTTTAACTCTCCTCTGAAATGTGTAGCGTAGGCTTTTCCCAAGGTCGCTAGAAACTCGT  
CTTCGCGTTGCCCCCTTTCTGGCTCTCAGCGCCGTCGCCACTCGGGAGAGGCTGGGTGAGGCCGCTGTGAGGACT  
GACCCTGGATTCTCGAAACTGCCATTGTGATCATTACTCTGCTCTTTGGTGGCTGTATCATTTTTTTTGTACTAA  
TGTGAATTGTTTCTCAGAAACGCTTCTTTTCCATCCTAGTGAGAAGCTGGCCCTGCAGGTGGTGGCAGCAATGGT  
GTTGTAAGATTTCTCCCGTAGTTTTTTCTCCTCATGGATTTGAATGAAATGCCAATAACACGTCCACTTTCAAC  
GTGTAGTTTACGCGGAGCACTTTCGAGGCCTGGCCGGGTTGGGCCTACTTCTCACCTGGGCCTATCTTCTGAACT  
CGCTAGGTTCTTATCAACATTTGGGGGATAACTTTGTATATTTTTTTTTCATTTGGCTTTTCTTTACCAGTTTCTGA  
TTTTTATTCTCAATATATTTTTTGCTAAACCTATTTTCAAAATCACCACCGACTGAAGTGTGTGTTTACTGATGCG  
GCCCTGAGCTCCATGGCGAAAGGAGTGACTTTGCAGGGCGTGAGACCGCAGTCTGCTTAGAGCACAGGAAGTGAC  
AACTTAGGGAGCCCCGTAGGGCGCTGCAGGCCCGGGGACCCACGACGTGGGTCTAAAGAGAGACGGAGTCTAG  
CTCTCCTGCCACCCAGAGTGGCTTCCATCTCAGCACTCTGTGGGTCTGGTGATGGAAGATGCAGTCTCTGCTGAT  
CACATGTGCCCTCTGCCAGGGCACCTACTGAGAGGTGCGGTCTCGGGGTGGAGGCCTGCCTGGCAGGTGTGCGT  
GCCTCGTACGTGTGTTATGGGCACTGGTCTAGGCCAGGTATGACCCCACTCTCCTGTGAGATTTCACTTTAGTT  
TTTAAAAGGTCCAGTTCTACAGAGTGAGACCTATCTATCTGAGTACTACATATGTTTTAAGACTTGGTTCTTTTT  
TTGAGGGATCCTTGACCCTGGGAAGTCTGGAGCACCTGAGAAGGGGGCACCATGTGTGCCTTTGCCACGTGTC  
CTGAGGGGCTGCTTGTCTGGGAGGGAGGAGAGAACATTCAGCAGCAGGTGCTTTTTTATGGCCTTTTCTTAAAA  
TAACCTAAGGGGGACACATCCATCTTGCAGAGAAGTTTACAGAACTCCCCTTGAAAACCTGCTGCTGAGGCTCCTG  
TTAAATTTTCTGTGGCATCTTTTATGCCTTGGTAAAAACTGCAGTGTCTTTGGACCTGAGAGTGGCTACTCCGTG  
GTTTTGTGACCTGTAAGCGTGGGGTTTACGGGTGTGTGGCCCTGCAGGGTCCCACGCCTCCCTGAGCACTGACTG  
GAAGTTTCACTGGCTGGTGGCTGTCCCTTCTCCCATCAGGGTCCCCAGCAAAGTTAACTACACAGAGGACCCAGG  
GGAAACGAGCTGTGTAGCCACTGACTTGCTCGCGCGGCGGTGGCCTCTGAGGGGCACTCGCCGGTTAAGACAGGG  
TGGGAGTAGTGCTTTCCAGTTTCACTCTAACTTCTCCCAAAGTGTCTAAGAAAATACTGGATCGGCTCATAGA  
TTTATGCTCCTTATGATGCCCTAACTTGAAGGTTGTTCTAGGGACAGGCCGGGCAGTGTCCCCACACACACCTT  
AGAGTCGAAGGCCCCAGGGCCCCGCTGTCACTTGCCCCAAAGATCCCTTCCGGCAGGTAAAGGACTACCAATGCT  
TACGTCAAACAGCAGAATCGGCTTTGCAGTGCATTTGGGGAGCAGATATTAACCTATTTTTTGTGTTGGACAGT  
AGTGAAATCTTGTGATTTTAAATCGCTTTGATAATACTTCCAAATTTTATGATTTTTTCTGAAGGAAATAATGCAA  
ACATTTTAAATATGTTTCTCCCCCTTTCCAAAACCTGTTAACTAATGAGCAAGTAACACTAACTTTGAATGTCT

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**FIGURE 617C**

CTACAATACCCGTTGATAACTCAGTGGAGCCAGGCTTTGGGGTAGCGGCCCTGAGCTTGCAGGGTTTCTCGCCAC  
TGGGGCTGACCACGCCCCCAGCTGTGACCGTGGGTGTGGCTGGCTCTCGGCCCTGCCCAGCTTTGTTCTGAGGAC  
GTGGTGACTTCCTGAACATCAGCTTCAATCCTCCATCATTAATGTGAAGCAAAACACAAAACCGCĆCCAATCCC  
TCAGGATTCCCTTGGCATCCGAAACCAGCATCTGCACCTAAACCCATACCCACCCGCTGTGCGCCACAGGGGGATG  
TGTCCGAATGGGCAGCTTAAAATGTGGTCACCTGTGGGGGAAACTCTTCAGGCACCTGAAGTGAGAACCCAGCTG  
TCCGTCCTCAGGCCGGCCTTTCTTCCGGCGACACCCGTCCATGGCTGGCTGGGTCCCTTCGCAGTGTTTGTCTG  
TCTTGACATCTAAACCCCGGCGTGTGCAGTGCCCATCTTCCAGGACTACCTTATTTTCCAGAATTAAACCTGTTT  
TATAATTCAAGTTAATGCAAATGACTGTCAGTTGCCAAATATCTTGATCCTGTGAGTGATGTTGATGACTGTTG  
TTCAGTCAGTAGAGTAAAATGCTGTGTCCACGGGGTGTACAGCCTCACCATACCCTGTTGAGGTGTGAAATGCCC  
CGTCAGAAATTAAATACAACTTAAATGTGCCTATTGGTGTCTAAACTTCATACAATGTAAGGTCAGATTCCCTT  
TAGGAATACTGGGTGCTGTACCAGGTTTGATAGTTAGACTTAAAAACTTGAAATTCACTTTTTGGGGGGAGGGA  
TATACTGAAATAGAGAGTTGAGACTTGCCAGTTGGGGGAAAAATAGCATTTAAATGGAAAGCTGTGTTTGAAAA  
TTGTGTATGAGTATTTTTGTATTAAAAACATTTTAAA

**FIGURE 618**

MEFSIKQSPLSVQSVVKCIKMKQAPEILGSANGKTPSCEVNRECSVFLSKAQLSSSLQEGVMQKFNGHDALPFIP  
ADKLDLTSRVFNGEPGAHDALRFESQEMKGIGTPNTPPIKNGSPEIKLKITKTYMNGKPLFESSICGDSAAD  
VSQSEENGQKPENKARRNRKRSIKYDSLLEQGLVEAALVSKISSPSDKKIPAKKESCPNTGRDKDHLLKYNVGD  
VWSKVSQYPWWPCMVSAADPLLHSYTKLKGQKKSARQYHVQFFGDAPERAWIFEKSLVAFEGEGQFEKLCQESAKQ  
APTKAEKIKLLKPI SGKLRAQWEMGIVQAEAAASMSVEERKAKFTFLYVGDQLHLNPQVAKEAGIAAESLGEMAE  
SSGVSEEAENPKSVREECIPMKRRRRRAKLCSSAETLESHPDIGKSTPQKTAEADPRRGVGSPPGRKKT TVSMR  
SRKGDAASQFLVFCQKHRDEVVAEHPDASGEEIEELLRSQWSLLSEKQRARYNTKFALVAPVQAEEDSGNVNGKK  
RNHTKRIQDPTEDAEAEDTPRKRLRTDKHSLRKRDTITDKTARTSSYKAMEAASSLKSQAATKNLSDACKPLKKR  
NRSTAASSALGFSKSSSPSASLTENEVSDSPGDEPSES PYESADETQTEVSVSSKKSERGVTAKKEYVCQLCEK  
PGSLLLCEGPGCGAFHLACLGLSRRPEGRFTCSECASGIHSCFVCKESKTDVKRCVVTQCGKFYHEACVKKYPLT  
VFESRGFRCP LHSCVSCHASNPSNRP SKGKMMRCVRCPVAYHSGDACLAAGCSVIASNSICTAHFTARKGKRH  
HAHVNVSWCFVCSKGGSLCCESC PAAFHPDCLNIEMPDGSWFCNDCRAGKKLHFQDI IWVKLGNYRWWPAEVCH  
PKNVPPNIQKMKHEIGEFVFFFGSKDYYWTHQARVFPYMEGDRGSRYQGVRGIGRVFKNALQEAEARFREIKLQ  
REARETQESERKPPPYKHIKVNKPYGKVQIYTADISEIPKCNCKPTDENPCGFDSECLNRMLMFECHPQVCPAGE  
FCQNQCFTKRQYPETKIIKTDGKGWGLVAKRDIRKGEFVNEYVGELIDEEECMARIKHAHENDITHFYMLTIDKD  
RIIDAGPKGNYSRFMNHSCQPN CETLKWTVNGDTRVGLFAVCDIPAGTELT FNYNLDCLGNEKTVCRCGASNC SG  
FLGDRPKTSTTLSSEEKGKTKKKTRRRRAKGEGRQSEDECFRCDGGQLVLC DRKFCTKAYHLSCLGLGKRPF  
GKWECPWHHCDVCGKPSTSFCHLCPNSFCKEHQDGTAFSCTPDGRSYCCEHDLGAASVRSTKTEKPPPEPGKPKG  
KRRRRRGWRRVTEGK

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**FIGURE 619**

AGGCTGTCTGCAGAGATTTGAAAA**ATG**GCAACAAATGAAAGTGTGAGCATCTTTAGTTTCAGCATCCTTGGCTGTG  
GAATATGTAGATTCACTTTTACCTGAGAATCCTCTGCAAGAACCATTAAAAATGCTTGGAACATATGTTGAAT  
AATTATACAAAGTTCCAGATTGCAACATGGGGATCCCTTATAGTTTCATGAAGCCCTTTATTTCTTATTCTGTTTA  
CCTGGATTTTTATTTCATTTTATACCTTATATGAAAAAATACAAAATTCAAAGGATAAGCCAGAGACATGGGAA  
AACCAATGGAAGTGTTCAAAGTTCTTCTCTTTAATCACTTCTGTATCCAGCTGCCTTTGATTTGTGGAACCTAT  
TATTTTACAGAGTATTTCAATATTCCTTATGATTGGGAAAGAATGCCAAGATGGTATTTTCTTTTGGCAAGATGC  
TTTGGTTGTGCAGTCATTGAAGATACTTGGCACTATTTTCTGCATAGACTCTTACACCACAAAAGAATATACAAG  
TATATTCATAAAGTTTCATCATGAGTTTCAGGCTCCATTTGGAATGGAAGCTGAATATGCACATCCTTTGGAGACT  
CTAATTCCTGGAACCTGGATTTTTCATTGGAATCGTGCTTTTGTGTGATCATGTAATCTTCTTTGGGCATGGGTG  
ACCATTCGTTTATTAGAAACTATTGATGTCCATAGTGGTTATGATATTCCTCTCAACCTTTAAATCTGATCCCT  
TTCTATGCTGGTTCTCGGCATCATGATTTCCACCACATGAACTTCATTGGAACTATGCTTCAACATTTACATGG  
TGGGATCGAATTTTTGGAACAGACTCTCAGTATAATGCCTATAATGAAAAGAGGAAGAAGTTTGAGAAAAAGACT  
GAAT**AAAA**TATCTCACGTAAACCTTCCTGAAAGATAAAACGTTTTCCTGAATTCAGAACTAGTAGCTAACATTGCT  
TCTGGAGAGCAGAAATAAGCATGTCTTCTGGCTACTAAGTGATAAAAAGAACATTAACAACCTTTAATTACCTTC  
CTAGTGGGAACCTTTTTCTACTTTACCTACAAGTTCTATATATGTAGAAATGAATAAATATATATTTAAGTACAGT  
TTTCATGAGGAAGTTTTAAAGACCATGTTTCTTAAGCTTCCAAGAAGGTTTTGGATACTAGAAGTATTAATCTAT  
GGCTTTTCTCCCAGTAAACCATAGGCCTGAAGTTCACATTGGGTCTTTAAATCTTTTAGATATATACTGGTCAT  
TTCAGAAAATCTTCATAGTGGTATTGGCCTTATATTTAACTTTTTTTTTTATTTTTTTTTTGGAGACAAAGCCACA  
CTCTGTCTCCTTGGCTGGAGTGTGGTGGCACAGTCTCAGCTCACTGCAACCTCTGCCTCCAGTTCAAGCAATTC  
TTCTGCCTCAGCCTCCCAAGTAGCTGGGATTACAGGCACCCGCCACCACGCCAGCTAATTTTTGTATTTTTGTGTA  
GAGATGGGGTTTCACGATGTTGGCCAGGCTGGTCTCAAACCTCTGACCTCAAGTGATCTGCCCACCTTGGCCTCC  
CAAAGTGCTGGGATTACAGGTGTAAGCCACTGCGCCCGGCCTTTTTAACTTTAAACATGTTTTAGAATTCACCTA  
AAGATCAAAATATCATGGATTGAACCTCATCAATTGATAGCAGTGAGTGACTGAAGCTTCCAAATCAAGAAAAGC  
CGGCACCAAGAACTTCCATTCTAATCTAGAGCTGACCAGTTTGAGCTGATTCTCTCTTTGAAGAGTCCTTCTTGA  
TTGCAGTGCAGTACTGGCATTCTGAATGGATGTAAGTGGAGTATTTTAGTCTAAAGGCTTTTCAAATTACTTGA  
ATTTTTTTAAAAATTGAGGAGCTTTATTTCTATTTACCTTCCATTTTTGTGTGAAAAAAAAAAAAAAAAA

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**FIGURE 620**

MATNESVSIFSSASLAVEYVDSLLPENPLQEPFKNAWNYMLNNYTKFQIATWGSLIVHEALYFLFCLPGFLFQFI  
PYMKKYKIQKDKPETWENQWKCFKVLLFNHFCIQLPLICGTYYFTEYFNIPYDWERMPRWYFLLARCFGCAVIED  
TWHYFLHRLLHHKRIYKYIHKVHHEFQAPFGMEA EYAHPLETLILGTGFFIGIVLLCDHVILLWAWVTIRLLETI  
DVHSGYDIPLNPLNLIPFYAGSRHHDFHMHMNFIGNYASTFTWWDRIFGTDSQYNAYNEKRKKFEKTE

## FIGURE 621A

GCGGGGACCGGACGAGCCCCGGGTGCGCGTTGGCAGCAGCAGCAGCAACACCAGCAGCAGCAGCAGCCCCGGCGG  
CGGCGCGGAACCCCCGAGCGCCCGGGCGACCCCGGCTTCCCGGAGCGCGACCGGCGGCAGCAGCCCCGGTGCGG  
CCGCGCGCGCCTTAGGCTCGGCCCCGCGGCTCGGGGACCCCGACTCCCGGCCAGCGAGCGCGTCCCCGGCGCC  
GCCCCGAGAGCCCCGAGGAGGCGCGGCCGAGAGCCCGGGGAGGGGGGCGGCCACCGCCCGCGCCGGGCATCCTC  
AGGAGCCCCAGAGCGCGGAGGGCGCGGCCCGCGAGCGGTGCTGGCCCCCGCGGGCTCCCCGGACCTTCCCCAC  
CGCCTGGGCCCCGAGGGACGCGTGATCGGGCGGGCGGCCGGGCGCAAGGGTGGGAGGGAGCCGCCCCGCGCGC  
CCCCTCCGCCCCCTCGCCCCAAACCCCTGGGCGCCGGGCCCGGGCCGCGCGGCTGAAGCGCCCGGATGGCGAGC  
CCGCGCGGACGCGGCCGCGGGCGGCGAGCGGAGACGGCCCCAACCTCAACAACAACAACAACAACAAC  
AACCACAGCGTGCGCAAGTGCGGCTACCTGCGCAACGAAGAGCATGGCCACAAGCGCTTCTTCGTGCTGCGCGGA  
CCCCGGCGCGGGCGGCGACGAGGCGACGGCGGGCGGGGGGTGCGCGCCGCAACCGCCGCGGCTCGAGTACTACGAG  
AGCGAGAAAAAGTGGCGGAGCAAGGCAGGCGCGCCGAAACGGGTGATCGCTCTCGACTGCTGCCTGAACATCAAC  
AAGCGCGCCGACGCCAAGCACAAGTACCTGATCGCCCTCTACACCAAGGACGAGTACTTCGCCGTGGCCGCGGAG  
AACGAGCAGGAGCAGGAGGGCTGGTACCGCGCGCTCACCGACCTGGTCAGCGAGGGCCGCGCGGCCGCCGAGAC  
GCGCCCCCGCGCCGCGCGCCGCGCGTCTGCAGCGCCTCCCTGCCCGGCGCCCTGGGCGGCTCTGCCGGCGCC  
GCCGGGGCCGAGGACAGCTACGGGCTGGTGGCTCCCGCCACGGCCGCTACCGTGAGGTGTGGCAGGTGAACCTG  
AAGCCCCAAGGGTCTGGGCCAGAGCAAGAACCTGACGGGGGTGTACCGTCTGTGCCTGTCTGCGCGCACCATCGGC  
TTCGTGAAGCTCAACTGCGAGCAGCCGTGGTGACGTGACGTGATGAACATCCGCCGTGCGGCCACTCGGAC  
AGCTTCTTCTTCATCGAGGTGGGCCGTGCGCCGTACAGGCCCCGCGAGCTGTGGATGACGGCGGACGACTCG  
GTGGTGGCGCAGAACATCCACGAGACCATCTGGAGGCCATGAAGGCGCTCAAGGAGCTTTCGAGTTCCGGCCG  
CGCAGTAAGAGCCAATCGTCGGGGTCTGTCGGCCACGACCCCATCAGCGTCCCCGGCGCGCGCCGCCACCACCAC  
CTGGTCAACCTGCCCCCAGCCAGACGGGCTGGTGCGCCGCTCGCGCACCGACAGCCTGGCCGCCACCCCGCCG  
GCGGCCAAGTGACGCTCGTGCCGGGTGCGCACCGCCAGCGAGGGCGACGGCGGCCGGGCTGCGGGAGCGGCGGCC  
GCGGCGCAGAGGCTGGTGTGCGTGGTGGGAGCCCCCTGAGCCCCGGGCCGGTGCGCGCGCCCTGAGCCGCTCG  
CACACCCTGAGCGGCGGCTGCGGCGGCCGCGGGAGCAAGGTGGCGCTGCTGCCGGCAGGGGGCGCGCTGCAACAC  
AGCCGCTCCATGTCCATGCCGTGGCGCACTCGCGCCCCGCCGCCACCAGCCCCGGCTCCCTGTCTGCTCCAGCAGC  
GGCCACGGCTCGGGCTCCTACCGCCGCGCGCCCGGCCGCCACCCGCTCTGCCGCATCCGCTGCACCACGGCCCC  
GGCCAGCGGCCCTCCAGCGGCAGCGCCTCCGCTCGGGCTCCCCCAGCGACCCCGGCTTCATGTCCCTGGACGAG  
TACGGCTCCAGCCCAGGCGACCTGCGCGCCTTCTGACGCCACCGAAGCAACACGCCCCGAGTCCATCGCGGAGACG  
CCCCCGCCCCGAGACGGCGGCGGCGGGTGAGTTCTACGGGTACATGACCATGGACAGGCCCTGAGCCACTGT  
GGCCGCTCCTACCGCCGGGTCTCGGGGACGCGGCCAGGACCTGGACCGAGGGCTGCGCAAGAGGACCTACTCC  
CTGACCACGCCAGCCGCGAGCGGCCGCTGCCCCAGCCCTCCTCTGCCTCGCTGGATGAATACACCCTGATGCGG  
GCCACCTTCTCGGGCAGCGCGGGCGCCTCTGCCGCTCCTGCCCGCGTCTCTCCCAAGGTGGCCTACCACCCC  
TACCCAGAGGACTACGGAGACATCGAGATCGGCTCCACAGGAGCTCCAGCAGCAACCTGGGGGCGAGACGAGGC  
TACATGCCCCATGACGCCCCGCGCGGCCCTTCGCGGGCAGTGGGAGCGGCAGCTGCAGGAGCGACGACTACATGCC  
ATGAGCCCCGCCAGCGTGTCCGCCCCAAGCAGATCTTGACGCCAGGGCCGCGCGCCGCCGCCGCCGCGCTG  
CCTTCTGCGGGGCTGCGGGGCCAGCACCCACCTCTGCGGCGGGCAGGACATTCCCGCGAGCGGGGGCGGCTAC  
AAGGCCAGCTCGCCCGCCGAGAGCTCCCCGAGGACAGTGGGTACATGCGCATGTGGTGGGTTCCAAGCTGTCC  
ATGGAGCATGCAGATGGCAAGCTGCTGCCAACGGGGACTACCTCAACGTGTCCCCAGCGACGCGGTCAACAG  
GGACCCCCGCGGACTTCTTCTCCGAGCCCTGCACCCCGCGGGGAGCCGCTCAGGGCGTTCCCGGCTGCTGC  
TACAGCTCCTTGCCCCGCTCCTACAAGGCCCTTACACCTGTGGCGGGGACAGCGACAGTACGTGCTCATGAGC  
TCCCCCGTGGGGCGCATCCTGGAGGAGGAGCGTCTGGAGCCTCAGGCCACGCCAGGGGCCAGCCAGGCGGCCAGC  
GCCTTGGGGGCCGCCCCACGACGCCCCCTACCCCTGTAGTGCTTCGCCCGTGCGGCGTAGCGGCCGCGGTCAC  
GGTTTCTTGGGCCAGCGCGGCCGGGCGGTGAGGCCACGCGCCTGTCCCTGGAGGGGTGCCAGCCTGCCAGC  
ATGCACGAGTACCCACTGCCACCGGAGCCCAAGAGCCCCGGCGAGTACATCAACATCGACTTTGGCGAGCCCGGG  
GCCCGCCTGTGCGCCCGCGCGCTCCCTGCTGGCGTCGGCGGCCCTCGTCTCCTCGCTCTTGTCCGCCAGCAGC  
CCGGCCTCGTCTGGGCTCAGGCACCCCGGGCACAGCAGCGACAGCCGGCAGCGGTCTCCGCTCTCCGACTAC  
ATGAACCTCGACTTCAGTCTCCCCAAGTCTCCTAAGCCGGGCGCCCCGAGCGGCCACCCCGTGGGCTCCTTGGAC  
GGCCTCCTGTCCCCCGAGGCCTCCTCCCGTATCCGCCGTTGCCCCCGCGTCCGTCCGCGTCCCGCTCGTCTGCT

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**FIGURE 621B**

CTGCAGCCGCCGCCACCGCCGCCGGCCCCGGGGGAGCTGTACCGCCTGCCCCCGCCTCGGCCGTTGCCACCGCC  
CAGGGCCCCGGGCGCCGCCCTCATCGTTGTCTCGGACACCGGGGACAATGGTGACTACACCGAGATGGCTTTTGGT  
GTGGCCGCCACCCCCGCCGAACCTATCGCGGCCCCCCGAAGCCAGAAGCTGCCCCGCTGGCCAGCCCCGACGTCG  
GGCGTGAAGAGGCTGAGCCTCATGGAGCAGGTGTGCGGAGTCGAGGCCTTCTGACGGCCAGCCAGCCCCCGGAC  
CCCCACCGCGGCGCCAAGGTCATCCGCGCAGACCCGACGGGGGGCCGCCGCCGCCACAGTTCCGAGACCTTCTCC  
TCCACCACGACGGTCACCCCCGTGTCCCGTCTTCGCCCCACAACCCCAAGCGCCACAACCTCGGCCTCCGTGGAA  
AATGTCTCTCTCAGGAAAAGCAGCGAGGGCGGCGTGGGTGTGCGCCCTGGAGGGGGCGACGAGCCGCCACCTCC  
CCACGACAGTTGCAGCCGGCGCCCCCTTTGGCACCGCAGGGCCGGCCGTGGACCCGGGTGAGCCCGGGGGCTTG  
GTCGGTTGTCTGGGAGCGGTGGATCGCCCATGCGCAGAGAGACCTCTGCCGGCTTCCAGAATGGTCTCAACTAC  
ATCGCCATCGACGTGAGGGAGGAGCCCGGGCTGCCACCCAGCCGACGCCGCCGCCGCCCGCTTCTCAGCCG  
GGAGACAAGAGCTCCTGGGGCCGGACCCGAAGCCTCGGGGGTCTCATCAGCGCTGTGGGCGTCGGCAGCACCGGC  
GGCGGGTGCGGGGGGCCGGTCCCGGTGCCCTGCCCCCTGCCAACACCTACGCCAGCATTGACTTCTTGTCCAC  
CACTTGAAGGAGGCCACCATCGTGAAAGAGTGAAAGATCTGTCTGGCTTTATCACCAGGATGTCACATGTCAGAGA  
ATATCATTAAAAAGACGCTCAGCGCTGTTTACGCCGAAGCTGCTTGCAATTTCTTTTGGATCTGAGCAATG  
ACTGTGTTTGGAAAACATCTGTGGACTCTGATAGATGGGGCACAACAAGGCAAGGTCACCTGCCTCTTCCCTTGT  
TCCCGGATGGGCATTTCATCATTGTGCTGTTTGCCTTTTGTCTTTTGTCTTTTGTCTTTTGTCTTTTGTCTTTT  
ATTCTCAAGAAAATTGGATGTTTTATTGGCCTTCTTAAATTGTGGCCAGTGTCTTTTAAATTTCTTCTTTTCT  
CTTTTGGCAAAGCAGATATAACCTCAGCATGCTAGGAGAGTGCACCCGTACCTATGGAAGTGGTAAATCTGGT  
ATTTACTGGCTTACACTCAAAACGACCACAGTCTACCTCAGTTCAAGGTAAAGCCGGATTTCCGTGGCGGGGT  
CCACAGGACCTCCTGTAGTAGCCCTGCGCTGTGTGTCTGGAGCGCTCCTCGCCTTATTTAAATGGTCCAGTAG  
ACAGCTGCTTGTGGATTCCAGTGCAGGTACCTGCGATGTTTACGTCCACACCGAGCCAGTGTGGGACTGACAT  
TTCTCAATGGAAGTGAAATTTGGGATTGGACTTTGAAGACGATTACTAAATAATAATTATTATATGTAAGTGAAG  
CAACCTACTTTTGAATCAACTGTATTGGGTAGTGGGAGGTGGGAGGGAAGGGCTTTGGGAAGGGGATGAATAT  
CTCTTTTACCTTTAACAGACTTGTTTAATCTTCTCGATGTAGATGTTTATGTAGGTACTTCACATTGCAAACGC  
CTTTTATTCTATTTACAAGCTCAGATGTCTCTGCTCTCTGAATCTTGGGCATGCCTTTCTGTAACCAAAATCC  
CTGTAGGCGTGCTAGCAATTCCAGGGTGGTCCGGTTTGGCAGATTTGATTTTTAAAAATGTATTATCTTTAAT  
AAAAATGTTATTATGTCAACCAGTGAGGCTGCCCTGAACAAAAAAGAAAAAAGAAAAAAGGAAAGA  
AAGAACTGATAAAAAAGAGGCATCCAGCCCTATGTTATTGATGGAAGAAAGAAAGAAAGCAATCTCGCA  
GTACATGTTACTTGTGCAAAAAATTCGGGACAAGACTACCTTGTCTTTATGTTTTCAGTATTCTGAAAATACCAG  
TGTGTGGCAGTTCTCGCAGATGTTACCTAAAAGTCTGAACTTGACCGGCAGAATGTTCTGCCGTTTTCTGCTCC  
CTCGACACTTGATTGGAGGGCTGTGACCTCTCCTCCCGTGGGGGCTTCCCCAGTGCCTATCTTCTCTGATAGTC  
ATGGAGAGGTTACACTAATTCATTGGAGATGTAAGTTGTTGGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTG  
TAAATATATAATAGATATCTATCGCTATAGAATAATGCATTAATAAAATGAGGCTTTTTTAGAGGAAGACCAAAA  
AATTCAATGTCTTAAAAATATATTTAATGGCAATGCAAAAGTCTTCTGCTTCCGTGCTGAACCTTTAGAACAGAG  
GATTGTATTGCAAGACAAAGTTGAATGTAAAGTGATCTCCCTGAACATTTTAAAGTTTTACTTTTCTGAAATTA  
TACATCACAGCAGTGATAGGCCATATAATGTTAGCTGGAAGGTCAATTCAGTGTATGATATACTTTATTAAGA  
TGTATAAAACATCCTGAAGTTTTTATTTAGTTTTGGGAATAGGCATCAGTGGGTGGTATTTGCTTTGTAACCTCC  
CCCAGGTACGATAGGGACTGAATATGGACCTGCTGAAAGCAGTGTATTGACGCATATTTAACTCGCCCTCTATC  
CGTAGAGTAGTCATGACACTATACAGATGGTTCGTGTTTACTGCTGAGCTTAAACAAGCAAAATACACAGATGA  
TAATATGCTAAATTTTCTCTATCCTGTACATTTACAAAAAGGCATATGCAATATTTACATTTTAAATTTAGTT  
TACAGAATGGAACCAAAATGTATAAATGTTATGTTTGTCTAAACTTACCAATGTATATTGGGTCTTTGTACATTT  
TGCCTGACTTACCTTAAATTTAAAAATATTTTTTGTCTATATAAACTTTAACAGTTATTAAACAGTGTTCCTTTT  
GGGTACGTATTGTTTCTGGATATCAAGATGTTAAATATATTTCTTGCTATTGTGATATGACAAGAGACTTAACTT  
ATCTTGCTCTGTCTTCCACTGTACACGCTGTATATAGGGGTCAATGTGATGCTGCTGGAGACGAGAATAAACTGG  
ACTAGAATAGTGCAATTGTATTTAGTCTGTATTGATCATGGATGCCCTCCTTAATAGCCATATGCAATAAAATAAA  
GTACATTATTTATGAAATGAA



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**FIGURE 622**

MASPPRHGPPGPASGDGPNLNNNNNNNNNNHNSVRKCGYLRNEEHGHRFFVLRGPGAGGDEATAGGGSAPQPPRLE  
 YYESEKKWRSKAGAPKRVIALDCCLNINKRADAKHKYLIALYTKDEYFAVAAENEQEQEGWYRALTDLVSEGRAA  
 AGDAPPAAAPAASCSASLPGALGGSAGAAGAEDSYGLVAPATAAYREVWQVNLKPKGLGQSKNLTGVYRLCLSAR  
 TIGFVKLNCEQPSVTLQLMNIRRCGHSDSFFFIIEVGRSAVTGPGELWMQADDSVVAQNIHETILEAMKALKELFE  
 FRPRSKSQSSGSSATHPIISVPGARRHHHLVNLPPSQTGLVRRSRTDSLAAATPPAAKCSSCRVRTASEGDGGRAAG  
 AAAAAQRLVSVAGSPLSPGPVRAPLSRSHTLSGGCGGRGSKVALLPAGGALQHSRSMMPVAHSPPAATSPGSL  
 SSSGHGSGSYPPPPGPHPLPHPLHHGPGQRPSSGSASASGSPSDPGFMSLDEYGSSPGDLRAFCSHRSNTPEI  
 AETPPARDGGGGGEFYGYMTMDRPLSHCGRSYRRVSGDAAQDLDRGLRKRTYSLTTPARQRPVPQPSSASLDEYT  
 LMRATFSGSAGRLCPSCPASSPKVAYHPYPEDYGDIEIGSHRSSSSNLGADDGYMPMTPGAAGAGSGSGSCRSD  
 YMPMSPASVSAPKQILQPRAAAAAAAVPSAGPAGPAPTSAGRTFPASGGGYKASSPAESSPEDSGYMRMWCGS  
 KLSMEHADGKLLPNGDYLVNPSDAVTTGTPDFFSAALHPPGGEPLRGVPGCCYSSLPRSYKAPYTCGSDSDQYV  
 LMSSPVGRILEEERLEPQATPGPSQAASAFGAGPTQPPHPVVPSPVRRSGRRSGFLGQRGRAVRPTRLGLEGLPS  
 LPSMHEYPLPPEPKSPGEYINIDFGEPPGARLSPPAPPLLASAASSSSLLSASSPASSLGSGTPTGSSDSRQRSPL  
 SDYMNLDFFSSPKSPKPGAPSGHPVGSGLDGLLSPEASSPYPLPPRPSASPSSSLQPPPPPPAPGELYRLPPASAV  
 ATAQGPGAASSLSSDTGDNGDYTEMAFGVAATPPQPIAAPPKPEAARVASPTSGVKRLSLMEQVSGVEAFLQASQ  
 PPDPHRGAKVIRADPQGRRRHSSSETFSSTTTTVPVSPSFAHNPKRHNSASVENVSLRKSSEGGVGVGPGGGDEP  
 PTSRQLQFAPPLAPQGRPWTPGQPGGLVGCPGSGGSPMRRETSAGFQNGLNYIAIDVREEPGLPPQPQPPPPPL  
 PQPGDKSSWGRTRSLGGLISAVGVGSTGGGCGGPGPGALPPANTYASIDFLSHHLKEATIVKE

**FIGURE 623**

GTCAACCAGTGAGGCTGCCCTGAACAAAAAAAAACAAAAGAAAAAAAAAAAAAGGAAAGAAAGAAACTGATAA  
AAAGAGGCATTCCAGCCCCTATGTTATTGATGGAAAAAGAAAAAGAAAGCAATCTCGCAGTACATGTTACT  
TGTGAAAAAATTCCGGACAAGACTACCCCTGTTTTATGTTTTCAGTATTCTGAAAATACCAGTGTGTGGCAGTTC  
TCGCAGATGTTACCTAAAAGTCTGAACCTGACCGGCAGAAATGTTCTGCCGTTTTCTGCTCCCTCGACACTTGAT  
TGGAGGGCTGTGACCTCTCCTCCCGTGGGGGCTTCCCCAGTGCCTATCTTCTCTGATAGTCATGGAGAGGTTAC  
ACTAATTCATTGGAGATGTAAGTTGTTGGTTTTGTTTTGTTTTGTTTTTAGAAAAATATATATAAATATATAATA  
GATATCTATCGCTATAGAATAATGCATTAATAAAATGAGGCTTTTTTAGAGGAAGACCAAAAAATTCAATGTCTT  
AAAAATATATTTAATGGCAATGCAAAAGTCTTCCTGCTTCCGTGCTGAACTTTAGAACAGAGGATTGTATTGCAA  
GACAAAGTTGAATGTAAAGTGATCTCCCTGAACATTTTTAAGGTTTTACTTTTCTGAAATTATACATCACAGCAG  
TGCATAGGCCATATAATGTTAGCTGGAAGGTCAATTCAGTGTATGATATACTTTATTAAGATGTATAAAACATC  
CTGAAGTTTTTATTTAGTTTTGGGAATAGGCATCAATGGGTGGTATTTGCTTTGTAACCCCCCAGGTACGATA  
GGGACTGAATATGGACCTGCTGAAAAGCAGTGTATTGACGCATATTTAACTCGCCCTCTATCCGTAGAGTAGTC  
ATGACACTATACAGATGGTTCGTCTTCATACTGCAGCTTAAACAAGCAAAATACACAGATGATAATATGCTAAA  
TTTTCTCTATCCTGTACATTTACAAAAAGGCATATGCAATATTTACATTTTTAATTTAGTTTACAGAATGGAA  
CCAAATGTATAAATGTTATGTTTGCTAAAACCTTACAATGTATATTGGGTCTTTGTACATTTTGCCCTGACTTA  
CCTTAAATTTAAAATATTTTTTGCTATATAAACTTTAACAGTTATTAAACAGTGTTTTCTTTTTGGGTACGTATT  
GTTTCTGGATATCAAGATGTTAAATATATTTCTTGCTATTGTGATATGACAAGAGACTTAACTTATCTTGCTCTG  
TCTTCCACTGTACACGCTGTATATAGGGGTCAATGTGATGCTGCTGGAGACGAGAATAAACTGGACTAGAATAGT  
GCATTGTATTTAGTCTGTATTGATCATGGATGCCCTCCTTAATAGCCATATGCAATAAAATAAAGTACATTATTT  
ATGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 624A**

GGGTGATTTCAGCGCCCGGCGAGGCGGAACGGGCCGCAAGAGGAGGAGGGGAGAGCCCGTCCGCGCCTGGGCTCCC  
GGGGTGGCAGCAGAGCCCGCGGCCGAGTGCGAGGCGGAGGCGAGGAGGCCGCGGGGACGGGAGGCGAGGCCGGCCG  
GGCCCCGAAGCC**ATG**GAGAACGCGCACACCAAGACGGTGGAGGAGGTGCTGGGCCACTTCGGCGTCAACGAGAG  
TACGGGGCTGAGCCTGGAACAGGTCAAGAAGCTTAAGGAGAGATGGGGCTCCAACGAGTTACCGGCTGAAGAAGG  
AAAAACCTTGCTGGAACCTTGATTGAGCAGTTTGAAGACTTGCTAGTTAGGATTTTATTACTGGCAGCATGTAT  
ATCTTTTGTGGCTTGGTTTGAAGAAGGTGAAGAAACAATTACAGCCTTTGTAGAACCTTTTGTAAATTTTACT  
CATATTAGTAGCCAATGCAATTGTGGGTGTATGGCAGGAAAGAAATGCTGAAAATGCCATCGAAGCCCTTAAGGA  
ATATGAGCCTGAAATGGGCAAAGTGTATCGACAGGACAGAAAGAGTGTGCAGCGGATTAAAGCTAAAGACATAGT  
TCCTGGTGATATTGTAGAAATTGCTGTTGGTGACAAAGTTCTGCTGATATAAGGTTAACTTCCATCAAATCTAC  
CACACTAAGAGTTGACCAGTCAATTCTCACAGGTGAATCTGTCTCTGTCAAGCACACTGATCCCGTCCCTGA  
CCCACGAGCTGTCAACCAAGATAAAAAGAACATGCTGTTTTCTGGTACAAACATTGCTGCTGGGAAAGCTATGGG  
AGTGGTGGTAGCAACTGGAGTTAACACCGAAATTGGCAAGATCCGGGATGAAATGGTGGCAACAGAACAGGAGAG  
AACACCCCTTCAGCAAAAACTAGATGAATTTGGGGAACAGCTTTCCAAAGTCATCTCCCTTATTTGCATTGCAGT  
CTGGATCATAAATATTGGGCACCTTCAATGACCCGGTTCATGGAGGGTCTGGATCAGAGGTGCTATTTACTACTT  
TAAAATTGCAGTGGCCCTGGCTGTAGCAGCCATTCTGAAGGTCTGCCTGCAGTCATCACCACCTGCCTGGCTCT  
TGGAACCTCGCAGAATGGCAAAGAAAAATGCCATTGTTTGAAGCCTCCCGTCTGTGGAAACCCTTGGTTGTACTTC  
TGTTATCTGCTCAGACAAGACTGGTACACTTACAACAAACCAGATGTCAGTCTGCAGGATGTTTATTCTGGACAG  
AGTGGAAAGGTGATACTTGTTCCTTAATGAGTTTACCATAACTGGATCAACTTATGCACCTATTGGAGAAGTGCA  
TAAAGATGATAAACCAGTGAATTGTACCAGTATGATGGTCTGGTAGAATTAGCAACAATTTGTGCTCTTTGTAA  
TGACTCTGCTTTGGATTACAATGAGGCAAAGGTGTGTATGAAAAAGTTGGAGAAGCTACAGAGACTGCTCTCAC  
TTGCCTAGTAGAGAAGATGAATGTATTTGATACCGAATTGAAGGGTCTTTCTAAAATAGAACGTGCAAATGCCTG  
CAACTCAGTCATTAAACAGCTGATGAAAAAGGAATTCCTCTAGAGTTTTTACGTGACAGAAAGTCAATGTGGT  
TTACTGTACACCAAATAAACCAAGCAGGACATCAATGAGCAAGATGTTTGTGAAGGGTGTCTCTGAAGGTGTCTAT  
TGACAGGTGCACCCACATTCGAGTTGGAAGTACTAAGGTTTCTATGACCTCTGGAGTCAAACAGAAGATCATGTC  
TGTCATTTCGAGAGTGGGGTAGTGGCAGCGACACACTGCGATGCCTGGCCCTGGCCACTCATGACAACCCACTGAG  
AAGAGAAGAAATGCACCTTGAGGACTCTGCCAATTTATTAAATATGAGACCAATCTGACCTTCGTTGGCTGCGT  
GGGCATGCTGGATCCTCCGAGAATCGAGGTGGCCTCTCCGTGAAGCTGTGCCGGAAGCAGGCATCCGGGTCTAT  
CATGATCACTGGGGACAACAAGGGCACTGCTGTGGCCATCTGTGCGCCGATCGGCATCTTCGGGCAGGATGAGGA  
CGTGACGTCAAAAGCTTTTACAGGCCGGGAGTTTGATGAACTCAACCCCTCCGCCAGCGAGACGCCTGCCTGAA  
CGCCCGCTGTTTTGCTCGAGTTGAACCCTCCACAAGTCTAAAATCGTAGAATTTCTTCAGTCTTTTGATGAGAT  
TACAGCTATGACTGGCGATGGCGTGAACGATGCTCCTGCTCTGAAGAAAGCCGAGATTGGCATTGCTATGGGCTC  
TGGCACTGCGGTGGCTAAAACCGCTCTGAGATGGTCTGGCGGATGACAACCTTCTCCACCATTTGTGGCTGCCGT  
TGAGGAGGGGCGGGCAATCTACAACAACATGAAACAGTTTCATCCGCTACCTCATCTCGTCCAACGTCCGGGAAGT  
TGTCTGTATTTTCTGACAGCAGCCCTTGGATTTCCCGAGGCTTTGATTCTGTTTACGCTGCTCTGGGTCAATCT  
GGTGACAGATGGCCTGCCTGCCACTGCACTGGGGTTCAACCCCTCTGATCTGGACATCATGAATAAACCTCCCCG  
GAACCCAAAGGAACCATTTGATCAGCGGGTGGCTCTTTTCCGTTACTTGGCTATTGGCTGTTACGTCCGCGCTGC  
TACCGTGGGTGCTGCTGCATGGTGGTTCATTGCTGCTGACGGTGGTCCAAGAGTGTCTTCTACCAGCTGAGTCA  
TTTCTTACAGTGTAAGAGGACAACCCGGACTTTGAAGGCGTGGATTGTGCAATCTTTGAATCCCCATACCCGAT  
GACAATGGCGCTCTCTGTTCTAGTAACATATAGAAATGTGTAAACGCCCTCAACAGCTTGTCCGAAAACAGTCTCT  
GCTGAGGATGCCCCCTGGGAGAACATCTGGCTCGTGGGCTCCATCTGCCTGTCCATGTCACTCCACTTCTGAT  
CCTCTATGTGCAACCTTGCCACTCATCTTCCAGATCACACCGCTGAACGTGACCCAGTGGCTGATGGTGTGAA  
AATCTCCTTGCCCGTGATTCTCATGGATGAGACGCTCAAGTTTGTGGCCCGCAACTACCTGGAACCTGGTAAAGA  
GTGTGTGCAGCCTGCCACCAATCTGCTCGTTCTCGGCATGCACCGATGGGATTTCCTGGCCGTTTGTGCTGCT  
CATAATGCCCCCTGGTGATCTGGGTCTATAGCACAGACACTAACTTTAGCGATATGTTCTGGTCT**TG**ACTGACAGT  
TTTCCATAAAGAAGATGTTTAACTTAATCAATTAATTTTTTTTATTGTTTAAAGCAACTGTCTATTTCTGCTGAAT  
TTTACATGAACATACTGGCTGGTGTATGGAGTTTCTACTCTAGATTTTGTGTTTTTCTGACTCCAGTGG  
GGCAAGATTTTCTTTTTTATACATAAATTAAAGTGTCCATTGACATGTACAGAGAACTAACACTATTTTATGC  
AAATATTTTTTTGTAGATGAAAAAGCATGTACAGTGTCTGTTTAAATACTCATCCTTGTATAAAAAAATAGTTG

**FIGURE 624B**

AGCCAGCAGACATTGTCAGCAAATTAATTGGCAGCAGATTTTAGGAAATGAATGTGTGTGGTTTTTTTTCTAAAA  
CTAAATAGCATGTATTGTGTCTTTTGCATGATGATCCGGATTTAATTTGATATCACAGTCTAATTTTTATTCTATA  
AGCCAATTTTTCTGCACTGAGCAGAGTCTTGCTACCTCAGTCAGTATTGTTTTGGTTTGCTACTTCCCTCACCCA  
CTTTGGCCTCCGTTACCCACCCACCCACCTCTCCACCTTACCCCGCCCCGCTTGGCTTCTTCTTTAGG  
ATTGTGATGGTTCGTTCTGTTTACATCAGTTTTAACGAGAGGTATGCCTGTACTCGCTTGTGCAGAAAACATTGT  
TCCAGATTCAATCGACTGGGTTTATGTCCCTTCACATAGTTTTTAAGGTTATTTATTTAAATGTCTAAATGTATTT  
TATTGTAACAGACATTGTTTTGCCAACATTGCCTATTTAGTGGCACGTCATCTAGTTTTAAAAAATAAAACAT  
TTTAAAAAG

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**FIGURE 625**

MENAHTKTVEEVLGHFGVNESTGLSLEQVKKLKERWGSNELPAEEGKTLLLELVIEQFEDLLVRILLAAACISFVL  
AWFEEGEETITAFVEPFVILLILVANAIVGVWQERNAENAIEALKEYEPEMGKVYRQDRKSVQRIKAKDIVPGDI  
VEIAVGDKVPADIRLTSIKSTTLRVDQSILTGESVSVIKHTDPVDPRAVNQDKKNMLFSGTNIAAGKAMGVVVA  
TGVNTEIGKIRDEMVAEQERTPLQOKLDEFGEQLSKVISLICIAVWIINIGHFNDPVHGGSWIRGAIYYFKIAV  
ALAVAAIPEGLPAVITTCALGTRMAKKNAIVRSLPSVETLGCTSVICSDKTGTLTTNQMSVCRMFIIDRVEGD  
TCSLNEFTITGSTYAPIGEVHKDDKPVNCHQYDGLVELATICALCNDSDALDYNEAKGVYEKVGAEATETALTCLVE  
KMNVDTELKGLSKIERANACNSVIKQLMKKEFTLEFSRDRKSMSVYCTPNKPSRTSMKMFVKGAPEGVIDRCT  
HIRVGSTKVPMTSGVKQKIMSVIREWGS S DTLRCLALATHDNPLRREEMHLED SANFIKYETNLTFVGCVGMLD  
PPRIEVASSVKLCRQAGIRVIMITGDNKGTAVAICRRIGIFGQDEDVTSKAFTGREFDELNPSAQRDACLNARCF  
ARVEPSHKSKIVEFLQSFDEITAMTGDGVNDAPALKKAEIGIAMSGTAVAKTASEMVLADDFSTIVA AVEEGR  
AIYNNMKQFIRYLISSNVGEVVCIFLTAALGFPEALIPVQLLWVNLVTDGLPATALGFNPPDLDIMNKPPRNPKE  
PLISGWLFFRYLAIGCYGAATVGAAAWFIAADGGPRVSFYQLSHFLQCKEDNPDFEGVDCAIFESPYPMTMAL  
SVLVTIEMCNALNSLSENQSLRMPPWENIWLVGSI CLSMLHFLILYVEPLPLIFQITPLNVTQWLMVLKISLP  
VILMDETLKFVARNYLEPGKECVQPATKSCSFSACTDGISWPFVLLIMPLVIWVYSTDTNFS DMFWS

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**FIGURE 626**

GAGGAGGCCCCGAGAGGAGTCGGTGGCAGCGGCGGGCGGGACCGGCAGCAGCAGCAGCAGCAGCAGCAACC  
ACTAGCCTCCTGCCCGCGGCGTTGCGACGAGCCCCACGAGCCGCTCAGCCCGCGGTTCTCAGCGCTGCCCGACC  
CCGCTGGCGCGCCTCCCGCCGAGTCCCGGCAGCGCCTCAGTTGTCTCCGACTCGCCCTCGGCCTTCGCGCAGC  
GCAGCACAGCCGCACGCACCGCAGCACAGCACAGCACAGCCCAGGCATAGCTTCGGCACAGCCCCGGCTCCGGCT  
CCTGCGGCAGCTCCTCTGGCACGTCCCTGCGCCGACATTCTGGAGGTTGGATGCTCTTGTCCAAAATCAACTCGC  
TTGCCCACCTGCGCGCCGCGCCCTGCAACGACCTGCACGCCACCAAGCTGGCGCCCGGCAAGGAGAAGGAGCCCC  
TGGAGTCGCAGTACCAGGTGGGCCCCGCTACTGGGCAGCGGCGGCTTCGGCTCGGTCTACTCAGGCATCCGCGTCT  
CCGACAACCTTGCCGGTGGCCATCAAACACGTGGAGAAGGACCGGATTTCGACTGGGGAGAGCTGCCTAATGGCA  
CTCGAGTGCCCATGGAAGTGGTCTGCTGAAGAAGGTGAGCTCGGGTTTCTCCGGCGTCATTAGGCTCCTGGACT  
GGTTCGAGAGGCCCCGACAGTTTCGTCTGTATCCTGGAGAGGCCCCGAGCCGGTGCAAGATCTCTTCGACTTCATCA  
CGGAAAGGGGAGCCCTGCAAGAGGAGCTGGCCCCGAGCTTCTTCTGGCAGGTGCTGGAGGCCGTGCGGCACTGCC  
ACAACCTGCGGGGTGCTACACCGCGACATCAAGGACGAAAACATCCTTATCGACCTCAATCGCGGCGAGCTCAAGC  
TCATCGACTTCGGGTTCGGGGGCGCTGCTCAAGGACACCGTCTACACGGACTTCGATGGGACCCGAGTGTATAGCC  
CTCCAGAGTGGAATCCGCTACCATCGCTACCATGGCAGGTTCGGCGGCAGTCTGGTCCCTGGGGATCCTGCTGTATG  
ATATGGTGTGTGGAGATATTCCTTTCGAGCATGACGAAGAGATCATCAGGGGCCAGGTTTTCTTCAGGCAGAGGG  
TCTCTTCAGAATGTCAGCATCTCATTAGATGGTGTCTGGCCCTGAGACCATCAGATAGGCCAACCTTCGAAGAAA  
TCCAGAACCATCCATGGATGCAAGATGTTCTCTGCCCCAGGAACTGCTGAGATCCACCTCCACAGCCTGTTCGC  
CGGGGCCCCAGCAATAGCAGCCTTTCTGGCAGGTCTCCCTCTCTTGTGATGCCCCGAGGGAGGGGAAGCTTC  
TGTCTCCAGCTTCCCAGTACCAGTGACACGTCTCGCCAAGCAGGACAGTGCTTGATACAGGAACAACATTTACA  
ACTCATTCCAGATCCCAGGCCCTGGAGGCTGCCTCCCAACAGTGGGGAAGAGTGAATCTCCAGGGGTCTTAGGC  
CTCAACTCCTCCCATAGATACTCTCTTCTCTCATAGGTGTCCAGCATTGCTGGACTCTGAAATATCCCGGGGGT  
GGGGGGTGGGGGTGGGCAGAACCTGCCAATGGAACCTTTCTTCATCATGAGTTCTGCTGAATGCCGCGATGGG  
TCAGGTAGGGGGGAAACAGGTTGGGATGGGATAGGACTAGCACATTTTAAGTCCCTGTACCTCTTCCGACTCTT  
TCTGAGTGCTTCTGTGGGGACTCCGGCTGTGCTGGGAGAAATACTTGAACCTTGCTCTTTTACCTGCTGCTTCT  
CCAAAAATCTGCCTGGGTTTTGTTCCTATTTTTCTCTCTCTCCCTCAGCCCTCTTTCATATGAAAGGTG  
CCATGGAAGAGGCTACAGGGCCAAACGCTGAGCCACCTGCCCTTTTTCTGCCTCCTTTAGTAAACTCCGAGTG  
AACTGGTCTTCCTTTTTGGTTTTTACTTAACTGTTTCAAAGCCAAGACCTCACACACACAAAAAATGCACAAAC  
CAAGCAATCAACAGAAAAGCTGTAAATGTGTGTACAGTTGGCATGGTAGTATACAAAAGATTGTAGTGGATCTA  
ATTTTTAAGAAATTTTGCCTTTAAGTTATTTTACCTGTTTTTGTCTTGTGTTTTGAAAGATGCGCATTCTAACCT  
GGAGGTCAATGTTATGTATTTATTTATTTATTTATTTGGTTCCCTTCCTATTCCAAGCTTCCATAGCTGCTGCCC  
TAGTTTTCTTTCCTCCTTTCTCCTCTGACTTGGGGACCTTTTGGGGGAGGGCTGCGACGCTTGCTCTGTTTGTG  
GGGTGACGGGACTCAGGCGGGACAGTGCTGCAGCTCCCTGGCTTCTGTGGGGCCCTCACCTACTTACCCAGGTG  
GGTCCCGGCTCTGTGGGTGATGGGAGGGGCCATTGCTGACTGTGTATATAGGATAATTATGAAACACAGTTCTGG  
ATGGTGTGCTTCCAGATCCTCTCTGGGGCTGTGTTTTGAGCAGCAGGTAGCCTGCTGGTTTTATCTGAGTGAAA  
TACTGTACAGGGGAATAAAAGAGATCTTATTTTTTTTTTATACTTGCGTTTGAATAAAAACCTTTGGCTTT

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**FIGURE 627**

MLLSKINSLAHLRAAPCNDLHATKLAPGKEKEPLESQYQVGPLLGGFSGSVYSGIRVSDNLPVAIKHVEKDRIS  
DWGELPNGTRVPMEVVLLKKVSSGFSGVIRLLDWFERPDSFVLILERPEPVQDLDFITERGALQEELARSFFWQ  
VLEAVRHCHNCGVLHRDIKDENILIDLNRGELKLIDFGSGALLKDTVYTDGTRVYSPPEWIRYHRYHGRSAAV  
WSLGILLYDMVCGDIPFEHDEEIRGQVFFRQVSSECQHLIRWCLALRPSDRETFEEIQNHPWMQDVLLPQETA  
EIHLSLSPGPSK

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**FIGURE 628**

GT TT GT TGG CTG CCG CAG CAG GTAG CAA AGT GAC GCC GAG GGC CTG AGT GCT CCAG TAG CCAC CGCAT CTG GAGA  
ACC AGC GGT TACC ATG GAG GGG ATC AGT ATATAC ACTT CAG ATA ACTAC ACC GAG GAA ATG GGC TCAG GGG ACTA  
TG ACT CCAT GAAG GAAC CCTG TTT CCGT GAAG AAA ATG CTA ATTT CAATA AAA ATCTT CCTG CCC ACCAT CTACTC  
CAT CAT CTCTT AACTGG CAT TGT GGG CAATGG ATTGGT CAT CCTGGT CAT GGGT TACCAGA AGAA ACTGAGA AG  
CATGAC GGA CAAGTACAG GCTGCAC CTGT CAGTGG CCGAC CTCCTCTTGT CATCAG CTTCCTTCTG GGCAGT  
TGATGCC GTGG CAAACTGGTACTTTGG GAACTTCC TATGCAAG GCAGTCCATGTCATCTACACAGTCAACCTCTA  
CAGCAGTGT CCTCAT CCTGG CCTTCATCAGTCTGG ACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAG  
GCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGA  
CTTCATCTTTGCCAACGTCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGT  
GGTTGTGTTCCAGTTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGT CATCTCTGCTGCTATTGCAT  
TATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCT  
GGCTTTCTTCGCCTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAA  
GCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCATCACC GAGGCCCTAGCTTTCTTCCACTGTTG  
TCTGAACCCCATCCTCTATGCTTTTCCTTGGAGCCAAATTTAAAACCTCTGCCCAGCACGCACTCACCTCTGTGAG  
CAGAGGGTCCAGCCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTC  
TTCAAGTTTTCACTCCAGCTTAACACAGATGTAAAAGACTTTTTTTTATACGATAAATAACTTTTTTTTAAGTTAC  
ACATTTTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTTTTATTGCTTGTGGATTTTTGTCTTGTGTTTCT  
T TAGTTTTGTGAAGTTTAATTGACTTATTTATATAAATTTTTTTTGTTCATATTGATGTGTGCTAGGCAGGA  
CCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAAAAGGGAAGTGAACATTCCAGAGCGT  
GTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTTTATGCATAGATAATCTCTCCATTCCCGTGGAACGT  
TTTTCTGTTCTTAAGACGTGATTTTGCTGTAGAAGATGGCACTTATAACCAAGCCCAAAGTGGTATAGAAATG  
CTGGTTTTTCAGTTTTCAGGAGTGGGTTGATTT CAGCACCTACAGTGTACAGTCTTGTATTAAGTTGTTAATAAA  
AGTACATGTTAAACTTACTTAGTGTTATG



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**FIGURE 629**

MEGISIYTSDNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVMGYQKKLRSMTDK  
YRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVLILAFISLDRYLAIVHATNSQRPRKL  
LAEKVVYVGWIPALLLTIPDFIFANVSEADDRYICDRFYPNDLWVVVFQFQHIMVGLILPGIVILSCYCIISK  
LSHSGHGHQKRKALKTTVILILAFFACWLPYYIGISIDSFILLEIIKQGEFENTVHKWISITEALAFFHCCLNPI  
LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS

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**FIGURE 630**

GAGCTAGCTTTGCAATATGCGGGCCGAGGCGGACGGACCGCTTAAACGGCTGCTCGTGCCGATTCTTTTACCTGA  
GAAATGCTACGACCAACTTTTCGTTTCAGTGGGACTTGCTTCACGTCCCCTGCTCAAGATTCTCCTCAGCAAAGG  
CCTGGGGCTGGGCATTGTGGCTGGCTCACTTCTAGTAAAGCTGCCCCAGGTGTTTAAAATCCGGGGAGCCAAGAG  
TGCTGAAGGGTTGAGTCTCCAGTCTGTAATGCTGGAGCTAGTGGCATTGACTGGGACCATGGTCTACAGCATCAC  
TAACAACTTCCCATTTCAGTCTTGGGGTGAAGCCTTATTCTGATGCTCCAGACGATCACCATCTGCTTCCTGGT  
CATGCACTACAGAGGACAGACTGTGAAAGGTGTCGCTTTCCCTCGCTTGCTACGGCCTGGTCCTGCTGGTGCTTCT  
CTCACCTCTGACGCCCTTGACTGTAGTCACCCTGCTCCAGGCCTCCAATGTGCCTGCTGTGGTGGTGGGGAGGCT  
TCTCCAGGCAGCCACCAACTACCACAACGGGTACACAGGCCAGCTCTCAGCCATCACAGTCTTCCTGCTGTTTGG  
GGGCTCCCTGGCCCCGAATCTTCACTTCCATTTCAGGAAACCGGAGATCCCCTGATGGCTGGGACCTTTGTGGTCTC  
CTCTCTCTGCAACGGCCTCATCGCCGCCAGCTGCTCTTCTACTGGAATGCAAAGCCTCCCCACAAGCAGAAAAA  
GGCGCAGTAGAGCCAGCTACTGGAGTCATTCCGTTTCCACTCATTACCCAACTCAGGGTTCTCCCCATCTGAG  
CCAGCCTGCTGGTGTGACTTACTCATCCTCCATTCCCTCTGCACTTGACAGCTTTCTGAGCCAGGGTTTTCTTTTA  
GTGGAAACAAATGGTTGATGGATCCAGATCCTTAGAAAAAGGAGAGGATGGGGGTAGAGTCTCCCAAGCCAAAATT  
TTGACATTTGAGTGCTTTTCGTAAGCCCTGTACATGTACTATTAATTCAGTCATTTCAGCCAAGCCTCCTCCTCTAG  
CAGCAATTTCCAGCTGTTTAACTATCCTGGGCAAATGTTTTACCCTGTCTCCAGCCTCCCTGCTTCCCTTCT  
GGCCCTGGAAGACTGAGTCTGGACGGCAGAGTGGAGGGACTGGGAGGCTGTGGCTGCCTCCCTCCCTCAGCCCGG  
CTGGGACTGTCTCCCGGACCCAGTGTGGGGTGGGGGAAGGGGACGGAGAATGACTCAGGCAGGGCCCCAGGG  
TGGGGTGAGGAGGTTCTGCTCTGGCAGGTCTAGGCGGAAGGGAGTGGAGATGGGGCTGGTTGCTGCTGCAGTGA  
GGGGAACAGATGGGACAATAAAGACTGGAGACTCAGTTGAATAATGCAAAAAAAAAAAAAA

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**FIGURE 631**

MAAEADGPLKRLVPIILLPEKCYDQLFVQWDLHVPCLKILLSKGLGLGIVAGSLLVKLPQVFKIRGAKSAEGLS  
LQSVMLELVALTGTMVYSITNNFPFSSWGEALFLMLQTITICFLVMHYRGQTVKGVAFLACYGLVLLVLLSPLTP  
LTVVTLLQASNVPVVGRLLQAATNYHNGYTGQLSAITVFLFGGSLARIFTSIQETGDPLMAGTFVVSSLCNG  
LIAAQLLFYWNAKPPHKQKKAQ

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**FIGURE 632**

CGGGAGGTCAGAAAACCGGGCCGCGGGCGGCACCGACAGCTGGGGCCCGGGTCAGGGACACGCGGAGGTCAGGCC  
GGTGAAGGCGGCAGGAAGCTGGAGCACGATCCCAGGAGGAACAATCCTGCACC**ATG**ACTCAACAGCCACTTTCGAG  
GAGTGACCAGCCTGCGTTTCAACCAAGACCAAGCTGCTTTTGCTGCGCCATGGAGACAGGTGTGCGCATCTACA  
ACGTGGAGCCCTTGATGGAGAAGGGGCATCTGGACCACGAGCAGGTGGGCAGCATGGGCTTGGTGGAGATGCTGC  
ACCGCTCCAACCTTCTGGCCTTGGTGGGCGGTGGTAGTAGTCCCAAGTTCTCAGAGATCTCAGTGCTGATCTGGG  
ACGATGCCCCGGGAGGGCAAGGACTCCAAGGAGAAGCTGGTGCTGGAGTTCACCTTCACCAAGCCAGTGCTTTCTG  
TGCGCATGCGCCATGACAAGATCGTGATCGTGCTGAAGAACCGCATCTATGTGTACTCCTTCCCCGACAATCCCC  
GAAAGCTGTTTGAGTTTGATACCCGGGACAACCCCAAGGGGCTCTGTGACCTCTGCCCCAGCCTGGAGAAGCAAC  
TGCTAGTGTTCCCGGGACACAAGTGTTGGGAGTCTGCAACTTGTGGACCTGGCGAGCACAAAGCCTGGCACCTCGT  
CTGCTCCATTACGATCAATGCACATCAGAGTGACATAGCCTGTGTGTCTCTAAACCAGCCAGGCAGTGTAGTGG  
CCTCAGCCTCCCAGAAGGGTACCCTTATTTCGCTCTTTGACACACAATCCAAGGAGAACTGGTGGAGCTGCGCC  
GAGGCACTGACCCTGCCACCCTCTACTGCATTAACCTTCAGCCACGACTCCTCCTTCTGCGCTTCCAGTGATA  
AGGGTACTGTCCATATCTTTGCTCTCAAGGATACCCGCCTCAACCGCCGCTCCGCGCTGGCTCGCGTGGGCAAGG  
TGGGGCCTATGATTGGGCAGTACGTGGACTCTCAGTGGAGCCTGGCGAGCTTCACTGTGCCTGCTGAGTCAGCTT  
GCATCTGCGCCTTCGGTCGCAATACTTCCAAGAACGTCAACTCTGTCATTGCCATCTGCGTAGATGGGACCTTCC  
ACAAATATGTCTTCACTCCTGATGGAACTGCAACAGAGAGGCTTTCGACGTGTACCTTGACATCTGTGATGATG  
ATGACTTTT**TAA**GGACCCTGGGGGCTGTGCTAGGGACCTGCAGTGGCAGAACTGCAGAGCTGAGCCTTGGCAGTGG  
GGCGTGCTTGGAAGCCACCAGCCAGCAAGCATTAAATGGGGCTGGTGCCCACTTTCCACTCAGCAGAGCTATGTCT  
AAATAAAGAGCTCACTTCCCCCAGCACTTCTTGATGACTGTGTGCCCCAAGGGCCAGGCCAGAGACCCAGGAAG  
GCAGCGACCCCTTGGGATCCCTAACCTGGAGGAAATTGCCAGGGACCCAGAGGGAGTGCCCTAATCCAACCTGGG  
GATTTTTTAAAGCTTCCTAGGAAGAGATGATCTCCGATGTGATGAATACGAATAAAAGGCCCTTAATGGC

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**FIGURE 633**

MTQQPLRGVTS LR FNQDQSCFCCAMETGVRIYNVEPLMEKGHLDHEQVGS MGLVEMLHRSNLLALVGGGSSPKFS  
EISVLIWDDAREGKDSKEKLVLEFTFTKPVLSVRMRHDKIVIVLKNRIYVYSFPDNPRKLF EFDTRDNPKGLCDL  
CPSLEKQLLVFPGHKCGSLQLVDLASTKPGTSSAPFTINAHQSDIACVSLNQPGTVVASASQKGT LIRLFD TQSK  
EKLVELRRGTD PATLYCINF SHDSSFLCASSDKGTVHIFALKDTRLNRRSALARVGKVGPMIGQYVDSQWSLASF  
TVPAESACICAFGRNTSKNVNSVIAICVDGTFHKYVFTPDGNCNREAFDVYLDICDDDDF

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**FIGURE 634**

ACGCCCTATACAACCTTGGCTTCACATACTTTTACACTAACCTTTATATGATTTTTTAAAACTGGTCTGATCGGACT  
TCTCGTCCTGGGACACTGTTTACTGGAGTCTGGCCGGCTCTCCGTGCTCCTCTTGGTACCTCATTITGGGGAGAA  
CCTTAAACCCACTCGAGCAGATAATCTCCGCCTTGACCGGTGCCACCAAAGAAGGGTTGGAACCATGTGGACTTT  
TCTGGGCATTGCCACTTTCACCTATTTTTATAAGAAGTTCGGGGACTTCATCACTTTGGCCAACAGGGAGGTCCT  
GTTGTGCGTGCTGGTGTTCCTCTCGCTGGGCCTGGTGCTCTCCTACCGCTGTCGCCACCGAAACGGGGGTCTCCT  
CGGGCGCCAGCGGAGCGGCTCCAGTTCGCCCTCTTCTCGGATATTCTCTCAGGCCTGCCTTTTATTGGCTTCTT  
CTGGGCCAAATCCCCCCTGAATCAGAAAATAAGGAGCAGCTCGGGGCCAGGAGGCGCAGAAAAGGAACCAATAT  
TTCAGAAACAAGCTTAATAGGAACAGCTGCCTGTACATCAACATCTTCTCAGAATGACCCAGAAGTTATCATCGT  
GGGAGCTGGCGTGCTTGGCTCTGCTTTGGTAGCTGTGCTTTCCAGAGATGGAAGAAAGGTGACAGTCATTGAGAG  
AGACTTAAAGAGCCTGACAGAATAGTTGGAGAATTCTGTCAGCCGGGTGGTTATCATGTTCTCAAAGACCTTGG  
TCTTGGAGATACAGTGGAAAGTCTTGATGCCCAGGTTGTAAATGGTTACATGATTTCATGATCAGGAAAGCAAATC  
AGAGGTTTCAAGATTCTTACCCTCTGTCAGAAAACAATCAAGTGCAGAGTGGAAAGAGCTTTCCATCACGGAAGATT  
CATCATGAGTCTCCGGAAAGCAGCTATGGCAGAGCCCAATGCAAAGTTTATTGAAGGTGTTGTGTTACAGTTATT  
AGAGGAAGATGATGTTGTGATGGGAGTTTCACTACAAGGATAAAGAGACTGGAGATATCAAGGAACCTCCATGCTCC  
ACTGACTGTTGTTGCAGATGGGCTTTTTCTCCAAGTTTCAAGAAAAGCCTGGTCTCCAATAAAGTTTCTGTATCATC  
TCATTTTGTGGCTTTCTTATGAAGAATGCACCACAGTTTAAAGCAAATCATGCTGAACCTTATTTTAGCTAACCC  
GAGTCCAGTTCTCATCTACCGGATTTTATCCAGTGAAACTCGAGTACTTGTGACATTAGAGGAGAAATGCCAAG  
GAATTTAAGAGAATACATGGTTGAAAAAATTTACCCACAAATACCTGATCACCTGAAAGAACCATTCTTAGAAGC  
CACTGACAATTCTCATCTGAGGTCCATGCTAGCAAGCTTCCTTCTCCTTCATCAGTGAAGAAACGAGGTGTTCT  
TCTTTTGGGAGACGCATATAATATGAGGCATCCACTTACTGGTGGAGGAATGACTGTTGCTTTTAAAGATATAAA  
ACTATGGAGAAAACCTGCTAAAGGGTATCCCTGACCTTTATGATGATGCAGCTATTTTCGAGGCCAACAAATCATT  
TTACTGGGCAAGAAAAACATCTCATTCTTTTGTGCTGAATATCCTTGCTCAGGCTCTTTATGAATTATTTTCTGC  
CACAGATGATTCCCTGCATCAACTAAGAAAAGCCTGTTTTCTTTATTTCAAACCTGGTGGCGAATGTGTTGCGGG  
TCCTGTTGGGCTGCTTTCTGTATTGCTCTCCTAACCTCTAGCTTTAATTGGACACTTCTTTGCTGTTGCAATCTA  
TGCCGTGTATTTTGTCTTTAAGTCAGAACCTTGATTACAAAACCTCGAGCCCTTCTCAGTAGTAGTGCTGTATT  
GTACAAAGCGTGTTCTGTAATATTTCTCTAATTTACTCAGAAATGAAGTATATGGTTTCATTAAGCTTAAAGGGG  
AACCATTTGTGAATGAATATTTGGAACCTTACCAAGTCTTAAGAGACTTTTGGAGAGGATATATATAGCATAGTA  
CCATACCACTTATAAAGTGGAAACCTTGGACCAAGATTTGGATTAATTTGTTTTTGAAGTTTTTGTATATAAA  
TATGTAAATACATGCTTTAATTTGCAATTTAAAATGAAGGGGTAAATAAGTTAGACATTTGAAAGAAATGATTG  
TTACCATAAATTAGTGCTAATGCTGAGGAGAACTACAGTTTTTCTTTTGAATTTAGTATTTGAGATGAGTTGTTG  
GGACATGCAAATAAAATGAAGAATGAC

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**FIGURE 635**

MWTF LGIATFTYFYKKFGDFITLANREVLLCVLVFLSLGLVLSYRCRHRNGG LLGRQRSGSQFALFSDILSGLPF  
IGFFWAKSPPESENKEQLGARRRRKGTNISE TSLIGTAACTSTSSQNDPEVIIVGAGVLGSALVAVLSRDGRKVT  
VIERDLKEPDRI VGEFLQPGGYHVLKDLGLGDTVEGLDAQVVNGYMIHDQESKSEVQIPYPLSENNQVQSGRAFH  
HGRFIMSLRKAAMAEPNAKFIEGVVLQ LLEEDDVVMGVQYKDKETGDIKELHAPLTVVADGLFSKFRKSLVSNKV  
SVSSHVVGFLMKNAPQFKANHAELILANPSPVLIYRISSETRVLVDIRGEMPRNLREYMVEKIYPQIPDHLKEP  
FLEATDNSHLRSMLASFLPPSSVKKRGVLLLGDAYNMRHPLTGGGMTVAFKDIKLWRKLLKGIPDLYDDAAIFEA  
NKSFYWARKTSHSFVVNILAQALYELFSATDDSLHQLRKACFLYFKLGGE CVAGPVGLLSVLSPNPLALIGHFFA  
VAIYAVYFCFKSEPWITKPRALLSSSAVLYKACSVIFPLIYSEM KYMVH

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**FIGURE 636**

GGCACGAGGGCGCGGCGGAGGCTCCCGTGGCCTCGGACGCTCCTCCTAGCTAGCGGCCGCCGCCGCCGCCCT  
GCGCCTCCAGCTCCTTCGCCCCGGCGGGCCCGGCCCGCTTCCGGCAGCTCACCTGGGAAGCGCTCACCTGGGA  
CGCGCTCACCTGGGACGCGCTACCTGCCTCCGGGCGCCTGGGCTTCAGGATGAAGGACCGTCTGGAGCAGCTGAA  
GGCCAAGCAGCTGACACAGGATGATGATACTGATGCGTTGAGATTGCTATCGACAACACGGCTTTTATGGACGA  
GTTCTTTTCTGAGATTGAGGAACTCGGCTTAACATTGACAAGATCTCAGAACATGTAGAGGAGGCTAAGAACT  
CTACAGTATCATTCTCTCTGCACCGATTCCAGAGCCAAAAACCAAGGATGACCTAGAGCAGCTCACGACTGAGAT  
TAAGAAAAGGGCCAACAACGTCCGGAACAACTGAAGAGCATGGAGAAGCATATTGAAGAAGATGAGGTCAGGTC  
ATCGGCAGACCTTCGGATTTCGGAAATCCCAGCACTCTGTCTTTCTCGGAAGTTTGTGGAGGTGATGACCAAATA  
CAATGAAGCTCAAGTGGACTTCCGAGAACGCAGCAAAGGGCGAATCCAGCGGCAGCTCGAAATTACTGGCAAAAA  
GACAACCGATGAGGAGCTGGAGGAGATGTTGGAGAGTGGCAACCCGGCCATCTTCACTTCTGGGATCATTGACTC  
ACAGATTTCCAAGCAAGCCCTCAGTGAGATTGAGGGACGACACAAGGACATTGTGAGGCTGGAGAGCAGCATCAA  
GGAGCTTCACGACATGTTTATGGACATCGCCATGCTGGTGGAGAATCAGGGTGAGATGTTAGATAACATAGAGTT  
GAATGTCATGCACACAGTGGACCACGTGGAGAAGGCACGAGATGAAACGAAAAAAGCTGTGAAATACCAGAGTCA  
GGCCCGGAAGAAATTGATAATTATCATTGTGCTAGTAGTTGTGTTGCTGGGCATTTTAGCATTGATTATTGGACT  
TTCCGTTGGGCTGAATTAAGAGTGGCCTAAGAGGCTGCTGCACTGAAATAAACTGATTTCACTCCAGACTGGTGT  
GGCCACCCCTTGCTCTCAGATGAGAATGGAGTCTGAATGGCCTTCCTGAGAGCGAGTGCACCCGTTCCCTTTGTTT  
CCTTGCAACCACCCCTTGACCTGACTCAGCTAACAATCTAGCCCTGGGGGAATGTGATCTACCTGATGCGACCCCT  
GAGTTCTCCCCAGAGCCTCCTCCTGCCCCACCAGCTCTCAAGTACCTTTTCTCCTGGACTGTGTGGACCCACCCA  
GCTTTCTTCTCCTGTTGTGTGTCAGATTATGCCTTGCACTTGGGAAAGCTCTTGTGAGACTCTCCCAAGGTGC  
TGTATTTTTCTACCTCATGGAGTATTCTCCCAGAACTGCAATGTATTTTTTTAGGGGAGTATCTTTAACAAAGC  
AGAATGATTCTTCTAAGTTTGGCAACAAGAAGGCTTGATCTGAGTCTTCTACCTGGCAGGATGCCAATCCTGTT  
TGTTGTCCGTATGTCTGAAAACATGAGGGACTGGCAGATGTCAATTTTGGTCTAAAGAGCTGACTTGTTTGAAAT  
TCAGCCTTAAATTAAGCTCTTAGTTGTTTCACTTGGGGGGCAACTTTGATTTTTTCTCTGTGTTGTAGTCTCTCAT  
ATTTACTCAAGGAGGGACCAGGATGATACAGTCATCTGAGGTTATGCTTTGCAAAAGGCTGACGGTATGGAATAT  
GTTTCCATGTCTGAGTCTTAGAACTGGCTGCTCATTGTTAGAAAGTGATGCTTTGTGAGACTATTGTCTTGGGG  
CCAAAAATAATCAGGGATTTTAAATTGGGCAAGGGACAAGGTGCTAGAATCCTAAGCTCTGGAAATATTTTATGA  
CACTGGTGTATTCACTCATGTGTTCCAGATGTATTCTAATTGTGTATGAAATGTATGTACACATAAGTGTGTGTG  
TCTCAGGAAGTAGGAAATAAAATGGAAGCTATTATGACCTCAAAAAAAAAAAGCCAACCTTGAGCTAGGATAAA  
AATTGGGTAAAGGACATTTGCTTACCTGCAAATGAATCACTGTGGAAATGTGATCTTCCCATATCATCAAGAAAC  
TTGTTTTCTGGATGAATACTGGGAGAATAAAATGAGAATCTGGAGTGAGCTAAATTGATCCCAATTAAGTTTTT  
CTGCTTAGCAGACAGAAGGTATAAATTTTTTGACACCCCTTCCCACCTGGTGCCTATGCTAGGCTTGTCTGAGAA  
CATCCCTCAGTAACTTGATATTACATGACCTACAGGATGTCCCATCTGCAGGGCTGAGTCAGTTGGGGAACACC  
AGAGGCTACACAGTAGCTCTTCTGCTACTCGGTTAATGAGCTTGGCAGGTTCTTTGTCTCACTGAATTCTTATC  
ATGGAAACAGCAGCAGCAGCCGCTAGGAAATCTTCAAGTGATGTCTGTGCTAACCAGTGGTAAATCCCTTAG  
ATCCCTGCTGGTCTCTGGCAGTCTCCTTGATTTTGGGTACCATGTATATTTCCGCTTTGACTTTAACGCTTTC  
TAGGATAGGGTAAGCACCCCTTAATTCAGGCACGTGCCATTAGCTTCCTTTGCAAAGGCTACTTATGGCCGGTCAC  
AATCCAGCACTCAGACAGAGCCAAGGCAATATCCTCTTGCCCATGGCTATGATGTCAGACAGTGGATGGGCTCCA  
GCAACAAGAGACAAAAATAACTAAAGGCCTTGCTCTCCTCTGACATTGAGGCCTGGGGCTTACAGTTTGGAATAC  
AACATGTGAAGGTTTTTGTGTTGTTTGTATTTTTTAGATGTAACTTGATTATTTTATTGCTAATTTAAAAATA  
AAAAATGACTTTGTATTGATTGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 637**

MKDRLEQLKAKQLTQDDDDTDAVEIAIDNTAFMDEFFSEIEETRLNIDKISEHVVEEAKKLYSIILSAPIPEPKTKD  
DLEQLTTEIKKRANNVRNKLKSMEKHIEEDEVRSSADLRIRKSQHSVLSRKFFVEVMTKYNEAQVDFRERSKGRIQ  
RQLEITGKKTDEELEEMLESGNPAIFTSGIIDSQISKQALSEIEGRHKDIVRLESSIKELHDMFMDIAMLVENQ  
GEMLDNIELNVMHTVDHVEKARDETKKAVKYQSQARKKLIIIVLVVVLGILALIIGLSVGLN

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**FIGURE 638A**

AATAAGAAAAAGCTTTTCATTTTGAAATCTAGAATACCTCCACTTTTGAAAATCTTTGATTTCCTCAAATTTTCT  
TGCTATGCACTAGTTAAAAGATAAGGTATTATATAATGAGCAATAGCACAGATCTCAAAGCTTTTGAGTTGCATA  
TGGGCCATACCTTCTTTTCTGTAACGTGCATACCCATGCATTAACACTTGTGCGCTTTTCCAGATCTGCTCACTT  
TAGCACTCTGGCAATTAAACAGAACCCCTTCTGGCAGAAGCTTATTGCAATTTGGGGAATGTGTACAAGGAAAG  
AGGGCAGTTGCAGGAGGCAATTGAGCATTATCGACATGCATTGCGTCTCAAACCTGATTTTCATCGATGGTTATAT  
TAACGCTGCAGCCGCTTGGTAGCAGCGGGTGACATGGAAGGGGCAGTACAAGCTTACGTCTCTGCTCTTCAGTA  
CAATCCTGATTTGTACTGTGTTTCGCAGTGACCTGGGGAACCTGCTCAAAGCCCTGGGTGCTTGGGAAGAAGCCAA  
GAAGGTTTCAGGTGGGTGAAACCTCCTATTCCATGCGTAAGGTGCCTCGCTGAAGGGAGCTCGAGGCCTGGATCT  
AGGGCAGACACACAACCTCCTCCTCCTCTTCCAGCAAGGAACGCACCGAAAAGTCACATGATGAGAAATATGGTA  
ACGGGTTTGTAACTGCCACAGCAAAACAATTTGCCTCCATGCCTGAATCTTCTGTCTTGTGGCTTCAGAAACAGC  
TTAAATAATTTTATTTTACAAGCAAGTTATGTAAGAGAATGTTTTTATACTATAGCCACAATTCTGTCAAAGATAA  
GTAAAGTTAATTGATATTAAAAATTATTAGAGATAATTTACTTAGTAAAAGCTTCTAACTCTTCTTGTGTTCA  
TTTTTTTTCTTTTTTCTTCTTGTGTTGGATTGCAGCATTCTGCTCTTCTGATGATGCGCTGTGACCCTGCAGTA  
GCGCAAAGGCTGCGCAGCGTTAATGCGCATTGCGTGCGAATGAACCCCTGTGAACGGTTGACTAGATGAGTAATC  
TGATTGACTGGCTCCCTCAGTCCTATTCTGTAGCCTTTTTGGATAAAATTGGGTTTTAACATACCTCGAGTCCAA  
CTAATCTCATTTAAACAAATATTCTCCATGGGCCTGTCTAGTAGATTAATGGATCTGGTTGGCCGTTTGTGCTGCGTC  
TAGGGGTGTTCTATGTAGCGCAGCAGTTTCGCAGCGATTGCGCAGTGCGATGCTGTTAGGTTGCGCAAGCGATGTT  
TGCCTGCGATTACAGGGACCTCAACCTAGGTGCAATCCTGTCTGTGAGGTTTCAGCTTCAGTCTCCTTGGGA  
GACGGGGCATTGTGAGAATGTAACCTAAAGCCTGGCTTTATGATATCCTACTTGGCAGAAAGACATTTTCTCCT  
CAGTAGCATAGTTTTGATGTTAGTGAGGAACATTGTTGAAGAGCAGCATTTCCTCAAATGTGTTTCATAGTATTC  
TAATAAAATGCCCAATGAAAGAAGAGTTCCATGGTCAACTAAGTTCAGGGAACCTGTTACACTATTAAAGGCTT  
AGGGAAGTCCAGTAAAGAAACCTATTTTCCGAATTTATTTGATCATGAACCTTTTTTTTTTCAGCCATACCTCT  
TAACACCTCATAGAACACACTTTGGGAAACAGTGGGGGTAGGAAAACCTCGGCCTCAAGTTGCGCCCTCTAGGTAG  
CACTTGAAAACATGACAAGGGCCGTAGTTGTTTGGATAAGAGAACTCCAGCATAGAGCCTTATAGCAACTGACT  
TCCCAGTTAAGTCCCAGTGTAAGGTTGGTCTTTGGTTGGCAGAACTGAACATGGTGGTTTGCAGTTGGGTTCTG  
GTGGCGCAGGCGCAGGAGCAGCCAGCTGTGGCAGCGCATTAGTTTTGGCGCAAGCGAGCCTATGCTGCAGGGTCA  
CTTTTGGCTGGTCAGAGAAGGAATAATGATATACCTTCTTCCCCCCTCCCCCAATCTTTTTTTTTTCCCTTT  
ACAAATTTTCCCTTTCCCTTTACCTCCTTTCCCTCCCATCTTCTTTCATTAACCCCTCCTAAGGCATGTTATTT  
GAAAGCAATTGAGACGCAACCGAAGCTTTGCAGTAGCTTGGAGTAATCTTGGCTGTGTTTTCAATGCACAAGGGGA  
AATTTGGCTTGCAATTCATCACTTTGAAAAGGCTGTACCCCTTGACCCAACTTTCTGGATGCTTATATCAATTT  
AGGAAATGCTTGAAAGAGGCACGCATTTTGCAGAGCTGTGGCAGCTTATCTTCGTGCCCTAAGTTTGAGTCC  
AAATCACGCAGTGGTGCACGGCAACCTGGCTTGTGTATACTATGAGCAAGGCCTGATAGATCTGGCAATAGACAC  
CTACAGGCGGGCTATCGAACTACAACCACATTTCCCTGATGCTTACTGCAACCTAGCCAATGCTCTCAAAGAGAA  
GGGCAGTGTGTGTAAGCAGAAGATTGTTATAATACAGCTCTCCGTCTGTGTCCACCCATGCAGACTCTCTGAA  
TAACCTAGCCAATATCAAACGAGAACAGGGAAACATTGAAGAGGCAGTTCGCTTGTATCGTAAAGCATTAGAAGT  
CTTCCCAGAGTTTGTGCTGCCATTCAAATTTAGCAAGTGTACTGCAGCAGCAGGGAAAACCTGCAGGAAGCTCT  
GATGCATTATAAGGAGGCTATTGCAATCAGTCTTACCTTTGCTGATGCCTACTCTAATATGGGAAACACTCTAAA  
GGAGATGCAGGATGTTACAGGGAGCCTTGCAAGTGTATACGCGTGCCATCCAAATTAATCCTGCATTTGCAGATGC  
ACATAGCAATCTGGCTTCCATTATAAGGATTACAGGGAATATCCAGAAGCCATAGCTTCTTACCGCACGGCTCT  
GAAACTTAAGCCTGATTTTCTGATGCTTATTGTAACCTGGCTCATTGCCTGCAGATTGTCTGTGATTGGACAGA  
CTATGATGAGCGAATGAAGAAGTTGGTCAGTATTGTGGCTGACCAGTTAGAGAAGAATAGGTTGCCTTCTGTGCA  
TCCTCATCATAGTATGCTATATCCTCTTCTCATGGCTTCAGGAAGGCTATTGCTGAGAGGCACGGCAACCTGTG  
CTTAGATAAGATTAATGTTCTTCTATAAACCACCATATGAACATCCAAAAGACTTGAAGCTCAGTGATGGTTCGGCT  
GCGTGTAGGATATGTGAGTTCCGACTTTGGGAATCATCTACTTCTCACCTTATGCAGTCTATTCCAGGCATGCA  
CAATCCTGATAAATTTGAGGTGTTCTGTTATGCCCTGAGCCCAGACGATGGCACAACTTCCGAGTGAAGGTGAT  
GGCAGAAGCCAATCATTTTATTGATCTTTCTCAGATTCCATGCAATGGAAAAGCAGCTGATCGCATCCATCAGGA  
TGGAAATTCATATCCTTGTAATATGAATGGCTATACTAAGGGCGCTCGAAATGAGCTTTTTGCTCTCAGGCCAGC  
TCCTATTACAGGCAATGTGGCTGGGATACCCTGGGACGAGTGGTGCCTTTTCATGGATTATATTATCACTGATCA

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**FIGURE 638B**

GGAAACTTCGCCAGCTGAAGTTGCTGAGCAGTATTCCGAGAAATTGGCTTATATGCCCCACACTTTTTTTATTGG  
TGATCATGCTAATATGTTCCCTCACCTGAAGAAAAAGCAGTCATCGATTTTAAGTCCAATGGGCACATTTATGA  
CAATCGGATAGTTCTGAATGGCATCGACCTCAAAGCATTCTTGATAGTCTACCAGATGTGAAAATTGTCAAGAT  
GAAGTGTCTGATGGAGGAGACAATGCAGATAGCAGTAACACAGCTCTTAATATGCCTGTTATTCCATGAATAC  
TATTGCAGAAGCAGTTATTGAAATGATTAAACCGAGGACAGATTCAAATAACAATTAATGGATTTCAGTATTAGCAA  
TGGACTGGCAACTACTCAGATCAACAATAAGGCTGCAACTGGAGAGGAGGTTCCCCGTACCATTATTGTAACCAC  
CCGTTCTCAGTACGGGTTACCAGAAGATGCCATCGTATACTGTAACCTTAATCAGTTGTATAAAAATTGACCCTTC  
TACTTTGCAGATGTGGGCAAACATTCTGAAGCGTGTTCCTAATAGTGTACTCTGGCTGTTGCGTTTTCCAGCAGT  
AGGAGAACCTAATATTCAACAGTATGCACAAAACATGGGCCTGCCCCAGAACCGTATCATTTTTTTCACCTGTTGC  
TCCTAAAGAGGAACACGTCAGGAGAGGCCAGCTGGCTGATGTCTGCTTGGACACTCCACTCTGTAATGGGCACAC  
CACAGGGATGGATGTCCTCTGGGCAGGGACCCCCATGGTGACTATGCCAGGAGAGACTCTTGCTTCTCGAGTTGC  
AGCATCCCAGCTCACTTGCTTAGGTTGTCTTGAGCTTATTGCTAAAAACAGACAAGAATATGAAGACATAGCTGT  
GAAGCTGGGAACTGATCTAGAATACCTGAAGAAAGTTCGTGGCAAAGTCTGGAAGCAAAGAATATCTAGCCCTCT  
GTTCAACACCAAAACAATACACAATGGAAGTAGAGCGGCTCTATCTACAGATGTGGGAGCATTATGCAGCTGGCAA  
CAAACCTGACCACATGATTAAAGCCTGTTGAAGTCACTGAGTCAGCATAAATAAAGACTGCACAGGAGAATTACCC  
CTATACCTGAGCCTCAACCTTCTGGGGGAAAGGGAAGTAGATAACATACTTCTTACTTGCTGTACAGTACCTTG  
TTGCAGATGGGTGATATATAATGGTAATAGAATAGCACAGCCAGACTTGCTTCCTGCATGGTAGGGAGAGACACA  
AAAGATGGGAACTGCTTTTCCACAAGGAATCTCCGTAGAATTTTGC GCGCACCAGATGGTGCATAGGTCTGGAA  
GGTCTGATCTCCCTTGGTCTTCCATGGGATGGTTAGTGTGGAGGGGAGATATAGATTGTCCGGCCGCTTTGTGAT  
TCCATGGATTGATTTCAGTCTTCTGGATTTTTTTTTTCTTTATATTTTGGGTACTGGAGCTTTTAAAAATGTTTGGT  
TTCAGGTATTTTTATTTCATGTGAAGTGTATATGATTCTCTTGAGATAAGGTTTTAAGCTAAAATGTTACTCCCTG  
TTTTAGTTTCTGAACTCTGACAGATTGACAGGGACTTTGCTGGTGTAGTCTTTTTATAGGTTTTATAAACCCTT  
GAGCCTATATCAGTCGTTTTAGTGTCTGACCTAATATTTGGAGCTATCAGTGCTTTGTTGATTTAGATGATGACT  
CAAGATTTTTTCTGGTCCATTTCCCATTTCTTTCTTCCCTGACCCCCATACCCTCACCTTAAAATTCTCCTG  
TAACTCAACTAACAAAATCAAGCCTGATTCAAACATCCTAGGGTGTTTTAAACACACCATCTGGTGCCAAATGA  
AGATTTTTTAGGAGTGATTACTAATTATCAAGGGCACAGTTGTGGTACTGTCATTGATAATAATATAGTTTTTTTT  
TTTTTCTTAATTTTGACCTGTTTACCAGTGTTTTACCCTTGACTGCCCCCTTCTATGCTGCTTCCAAAAGTGATA  
GTGTGTGTAAGATTTTTACCTTCTTTCTAAAGTTTTTTTTTTTTTTTTTAAAGTGAGTCCTGTTCTTCTATTT  
CTTTCAGCAGAAATGAAATCCCAGGTAAGTATAAGTATTCAAGTATTTGATCAGTAAGTCACAGTTATCTCCAGT  
GCATTAAATAACCTTCATCAAGAAATAGGTTATAGGTAAATCTCTGAAGGATCATCTATGTATTCAAGTAATTA  
TTTTTTAGATAATAACTGTCTTCTGGACTTGGTCTTGAAGTCTGTACAGATTTCAGCCTCAGTAGTAGCGAACTGC  
ACTGCTGTTTGGTTTGGAGTACAAATTAGACTTATAGTCTCTGGAACCTGAGTTATTAAAATCATAGGAATAA  
AATTATGGGATCTCAACAAAGGTCGAGGGTTTGAGGCTTAAACAAGCCAACATATGAATATATGTTTTGTCTCG  
CTATACTGCACTTACGCTATCCAGTTGCAGGTAATTTTTGTCTGCTAGTAGTGTCTAGATTATGTCTTTCCAA  
AGCGCTGAGGCTGTGCACCTATTCTGTAGTTGCAGCTGATGCCTGAATGTATCCTAGCTGACAAATTATTGATTA  
ATAAGAACTTGAATTTCTGGAAGATTCTTACTGTTAACCATAATTTGAGCAAGGAGTCTCAAAGGTAATTCTGAA  
CCAGAATTACATGTTAATGAACAGTGTACCTTTTAAACAGTGTAATCACGGAATATCCGTGAAGGGATTCTTAA  
TTTATTTTTTACCAGTTGATTGAAATATCAGTTAAAGGTTGCCAGCATGGTTGCAGATAAACTGATGTTTGAAAT  
TCGCTGAAATACTTAATGTGGAATAGGATAATATACTTCCAATGCCCTCAAGGCTGTGACCTTACAGCCATTTTA  
CATAGCACATCATTCCTCCTATAGGGATGAACTTTTCTGGCACGAAAAGTAGCCGCTCTGGTTGAAGCTTTGC  
TTATTGTAACAGGCTTTTATTTCCAGGTAATATGTCTTGAAGACTTAATTCTGATTAGAGATATAGATATTACT  
GGAAACTAATTGTTTTTTTTCTATTGTACTCTGCTTTATCAAAGAAGTAAAAACATTTAAATCGTACTACAGAAAT  
TAAGATGTTGCTTGGCATCCTTAATAAATGAATGATTTCCCTTTAAAAAAA

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**FIGURE 639**

MISPSSPPPPNLFFFPLQIFPPFTSFPSHLLSLTPPKACYLKAIETQPNFAVAWSNLGCVFNAQGEIWLAIHFF  
 EKAVTLDPNFLDAYINLGNVLKEARIFDRAVAAYLRALSLSPNHAVVHGNLACVYYEQGLIDLAIIDTYRRRAIELQ  
 PHFPDAYCNLANALKEKGSVAEAEDCYNTALRLCPHADSLNNLANIKREQGNIEEAVRLYRKALEVFPEFAAAH  
 SNLASVLQQQGLQEALMHYKEAIRISPTFADAYSNMGNLTKEMQDVQALQCYTRAIQINPAFADAHSNLASIH  
 KDSGNIPEAIAASYRTALKLKPDFFDAYCNLAHCLQIVCDWTDYDERMKKLVSIIVADQLEKNRLPSVHPHHSMLYP  
 LSHGFRKAIAERHGNLCLDKINVLHKPPYEHKDLKLSDGRLRVGYVSSDFGNHPTSHLMQSIPGMHNPDKFEVF  
 CYALSPDDGTNFRVKVMAEANHFIIDLSQIPCNGKAADRIHQDGIHILVNMNGYTKGARNELFALRPAPIQAMWLG  
 YPGTSGALFMDYIITDQETSPAEEVAEQYSEKLAYMPHTFFIGDHANMFPHLKKKAVIDFKSNGHIYDNRIVLNGI  
 DLKAFLDSLDPVKIVKMKCPDGGDNADSSNTALNMPVIPMNTIAEAVIEMINRGQIQITINGFSISNGLATTQIN  
 NKAATGEEVPRTIIVTTRSQYGLPEDAIVYCNFNQLYKIDPSTLQMWANILKRVPSVLWLLRFPVAVGEPNIQQY  
 AQNMGLPQNRIIFSPVAPKEEHVRRGQLADVCLDTPLCNHHTTGMDVLWAGTPMVTMPGETLASRVAASQLTCLG  
 CLELIAKNRQEYEDIAVKLGTDLEYLKKVRGKVWKQRISSPLFNTKQYTMELERLYLQMWHEYAAGNKPDMIKP  
 VEVTESA

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**FIGURE 640**

ATGCGTGAGTGCACTCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGC  
CTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGATTCCTTCAAC  
ACCTTCTTCAGTGAAACGGGTGCTGGCAAGCATGTGCCCCGGGCAGTGTGTTGTAGACTTGGAACCCACAGTCATT  
GATGAAGTTTCGCACTGGCACTTACCGCCAGCTCTTCCACCCTGAGCAACTCATCACAGGCAAGGAAGATGCTGCC  
AATAACTATGCCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTCGTGTGGACCGAATTCGCAAGCTG  
GCTGACCAGTGACCGGTCTTCAGGGCTTCTTGTTTTCCACAGCTTTGGTGGGGGAAGTGGTTCTGGGTTACCC  
TCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATTTACCCGGCGCCC  
CAGGTTTCCACAGCTGTAGTTGAGCCCTACAACCTCATCCTCACCACCCACACCACCCTGGAGCACTCTGATTGT  
GCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCTAGAAAACCTCGATATCGAGCGCCCAACCTACACT  
AACCTTAACCGCCTTATTAGCCAGATTGTGTCTCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTT  
GACCTGACAGAAATCCAGACCAACCTGGTGCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCCCCCTGTC  
ATCTCTGCTGAGAAAGCCTACCATGAACAGCTTACTGTAGCAGAGATCACCAATGCTTGCTTTGAGCCAGCCAAC  
CAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTGTTATACCGTGGTGACGTGGTTCCC  
AAAGATGTCAATGCTGCCATTGCCACCATCAAAACCAAGCGTACCATCCAGTTTGTGGATTGGTGCCCCACTGGC  
TTCAAGGTTGGCATTAAATTACCAGCCTCCCACTGTGGTGCCCTGGCGGAGACCTGGCCAAGGTACAGAGAGCTGTG  
TGCATGCTGAGCAATACCACAGCTGTTGCCGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCC  
AAGCGTGCCTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTTCAGAGGCCCGTGAGGACATG  
GCTGCCCTTGAGAAGGATTATGAGGAGGTTGGAGCAGATAGTGCTGACGGAGAGGATGAGGGTGAAGAGTATTAA

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**FIGURE 641**

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI  
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHSFGGGTGSGFT  
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISA EKAYHEQLTVAEITNACFEPAN  
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV  
CMLSNTTAVAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYE EVGADSADGEDEGEY

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**FIGURE 642**

AGTGTGGTTTTAGTTTTTCCTAAGAAGTGGCGTGGTTTGGGGCTTTATATCCGGGAGGAGCATATGTACGCAAAT  
CCTGGGGCGTTTTGCAAACCCGGATCCGGGGCGTCTGGCCCCATGCCCGCGGGCGTTTTGAGGGCTACTGCCACG  
CAGCGTTTTCTGGAGCCTGCCGGCTGGTGCCCTGGTGGCCTTTATCTCTGTCCCCCTTTGTCTCTTTATCTCAGG  
CTCTCCAGGAGGCCGGGGGGCCACTCCGCCTATCGCTCCCCCTCGGCTACGCTGCCACTCCAATGCCCGCAGGT  
CGCGAGCTGCTGTTCTTTGGAAGGCGCCGGAGAACCAGGGGCGTCCCGCGCCACCTCTGACTCGGAGCAGCGCCG  
AGCACTGACGCTCCCGCCCTTGGGCAAGGACGCCAGTGCGCCCGCGCGCTCCCTCTGCGCGGCAGCCCGTCGCG  
GGCCCTCAAGGGGAAGCCCAGGCCAGGATGCCCCGGGTGCGCGGGTGGCCGGGCTCCTGTTGCTGGCGGCCGCC  
GGCCTCGGAGGAGTGGCGGAGGGGCCAGGGCTAGCCTTCAGCGAGGATGTGCTGAGCGTGTTCGGCGCGAATCTG  
AGCCTGTGGCGGCGCAGCTCCAGCACTTGCTGGAGCAGATGGGAGCCGCTCCCGCGTGGGCGTCCCGGAGCCT  
GGCCAGCTGCACTTCAACCAGTGTTTAACTGCTGAAGAGATCTTTCCCTTCATGGCTTTTCAAATGCTACCCAA  
ATAACCAGCTCCAAATTCTCTGTCTGTCTGTCAGCAGTCTTACAGCAATTGAACTTTACCCATGTGAGGATCGG  
CCCAAGCACAAAACAAGACCAAGTCATTGAGAAGTTTGGGGATATGGATTCTGTGCTGACGATTATTAATCTG  
GCATCTCTCTCGGATTGATTTTGACTCCACTGATAAAGAAATCTTATTTCCCAAAGATTTTGACCTTTTTTGTG  
GGGCTGGCTATTGGGACTCTTTTTTCAAATGCAATTTTCCAACCTATTCCAGAGGCATTGGATTGATCCCAAA  
GTCGACAGTTATGTTGAGAAGGCAGTTGCTGTGTTTGGTGGATTTTACCTACTTTTCTTTTTTGAAGAATGCTA  
AAGATGTTATTAAAGACATATGGTCAGAATGGTCATACCCACTTTGGAAATGATAACTTTGGTCTCAAGAAAAA  
ACTCATCAACCTAAAGCATTACCTGCCATCAATGGTGTGACATGCTATGCAAACTCTGTGTACAGAAGCTAAT  
GGACATATCCATTTTGATAATGTCAGTGTGGTATCTCTACAGGATGGAAAAAAGAGCCAAGTTCATGTACCTGT  
TTGAAGGGGCCCCAACTGTGAGAAATAGGGACGATTGCCTGGATGATAACGCTCTGCGATGCCCTCCACAATTTT  
ATCGATGGCCTGGCGATTGGGGCTTCTGACCTTGTCTCTCTCTTCAGGGACTCAGTACTTCCATAGCAATCCTA  
TGTGAGGAGTTTCCCCACGAGTTAGGAGACTTTGTGATCCTACTCAATGCAGGGATGAGCACTCGACAAGCCTTG  
CTATTCAACTTCTTTCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCTGCT  
CCAAATATTATATTGCACTTGTGAGGCGATGTTCTCTATATTCTCTGCGCAGATATGTTTCCAGAGATGAAT  
GATATGCTGAGAGAAAAGGTAAGTGAAGAAAAACCGATTTCACCTTCTTCATGATTGAGAATGCTGGAATGTTA  
ACTGGATTACAGCCATTCTACTCATTACCTTGTATGCAGGAGAAATCGAATTGGAGTAATAGAAAATGGAAGAT  
GGTGTGTTAATAAAGGCATTTAATAGATAAAAAACATCTCCAAAAGGATTTTGAAGCTGATCCTATTTAGTTAA  
AAAGATAATTTTGTCTTCAACTGTAGGTCCAGAAAACATAATTATTGGCATCAGTCTGTGAAATAGTCCATTATTT  
GTTGTTAAAAATGCTTCAAAAGGTTTTCAGTGTGCTGCTGAGATGCCTGGTATATAGGAGCCTTTGGGAAATACT  
TATTTTTTCACTATTCCATGCATATTAGATATCACCATGAAGCAAGAGACATGCATTCTATAATCATGTAGACACT  
CAGACTCAGGGGAAAAATACAAGTTATATCCTGAAAGCCTTTAAACTCTATGGTAGGATCAAAGATTCAAATGGT  
TTCAGAGAGGTTTTATTTCATTAATTTGTTCTAGTGCTTTCAAGAGCAAGTACATCAAAATGTAGAAGGTAAAA  
TGTATGCAACACTAATATAAATTATTCCAAGTCTTTAAGGAGCCAAAAGAAAAAAGATTTCTCACAGCTTTTTG  
TTCTGTTTTGTATTTCAATTAGGAACCTGCACTATTATTTTGAAGAACCTTCTAAAATAATAGGAGTTAGGAAAT  
AAATAAAGTTTTGCTAGCCCTGCTAAGTTTCAAGGCTTAGAGGCTTATCGCTAAGTXXAACTTCACCAGATTCCAC  
GAAAAGCTGGATAGCTTTTTTTCTGACTTATGTTGTGGTTGCACCCCTCACAAATGGCAGAACAGTATGTAAAGC  
TGGAACACCTCGGTTTCACTGCACCATGTGTTTGGTTTTGTGAAGGTGAAGAATATGTTGGTTTTAGAGAAAGAAA  
TTGGATGTAATTTTATGCAATTTACTTTTTAAAGACAAACATAACTATTTAGCAGAGAATATTTTAAATAATGCAA  
AACAACAGCTGGACTGCTGTACATCAAGGACAGATTAAGTGAAGAACATAATGTTCTTATGTGTGATTGAGAGCC  
ATTCAGAAAAGACTTCCTTTGTGTTTCAAGCTATACTTTTCCATATGGTATACCTTGAAAAAATTAGCACACCAT  
GGTTATTTTTTCTACCTTTTATAAAGACAGAGCCTGTTTACTCATTTAGAAGATAGAGAAAATTTGGTCTAAAATT  
GAACATCCTAGATTCACACTCCCAAGTCACCTAAGGTGATTTGATGGTGAGGAAAATGATTGACAAAGCCCAACA  
ATGATCTCAGGAATTACATTTTCCAACAGACCAAAAAATGTTTTTATGTAGCAGCAATGCAGATTGGTGAATAT  
TTAATATATATTTTAGTATGATTTTCACTTTATGACTGACAATAAAAAATATTGTTTGGCCAAATAGTAAACAC  
CCTTTTGAACCATGAAAAAA

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**FIGURE 643**

MAPGRAVAGLLLLAAAGLGVAEGPGLAFSEDVLSVFGANLSLSAAQLQHLLSEQMGAASRVGVPEPGQLHFNQCL  
TAEEIFSLHGFSNATQITSSKFSVICPAVLQQLNFHPCEDRPKHKTRPSHSEVWGYGFLSVTIINLASLLGLILT  
PLIKKSYFPKILTFFVGLAIGTLFSNAIFQLIPEAFGFDPKVDSYVEKAVAVFGGFYLLFFFERMLKMLLKTYGQ  
NGHTHFGNDNFGPQEKTHQPKALPAINGVTCYANPAVTEANGHIHFDNVSVVSLQDGKKEPSSCTCLKGPKLSEI  
GTIAWMITLCDALHNFIDGLAIGASCTLSLLQGLSTSIAILCEEFPHELGDVILLNAGMSTRQALLFNFLSACS  
CYVGLAFGILVGNNFAPNIIFALAGGMFLYISLADMFPPEMNDMLREKVTGRKTDFTFFMIQNAGMLTGFTAILLI  
TLYAGEIELE



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**FIGURE 644**

GGGGCTACCGCGCCTTTGCTTCCTGGCGCACGCGGAGCCTCCTGGAGCCTGCCACCATCCTGCCTACTACGTGCT  
GCCCTGCGCCCGCAGCC**ATGT**GCCGCACCCCTGGCCGCCTTCCCCACCACCTGCCTGGAGAGAGCCAAAGAGTTCA  
AGACACGTCTGGGGATCTTTCTTCACAAATCAGAGCTGGGCTGCGATACTGGGAGTACTGGCAAGTCCGAGTGGG  
GCAGTAAACACAGCAAAGAGAATAGAACTTCTCAGAAGATGTGCTGGGGTGGAGAGAGTCGTTTCGACCTGCTGC  
TGAGCAGTAAAAATGGAGTGGCTGCCTTCCACGCTTTCCTGAAGACAGAGTTCACTGAGGAGAACCTGGAGTTCT  
GGCTGGCCTGTGAGGAGTTCAAGAAGATCCGATCAGCTACCAAGCTGGCCTCCAGGGCACACCAGATCTTTGAGG  
AGTTCAATTTGCAGTGAGGCCCTAAAGAGGTCAACATTGACCATGAGACCCGCGAGCTGACGAGGATGAACCTGC  
AGACTGCCACAGCCACATGCTTTGATGCGGCTCAGGGGAAGACACGTACCCTGATGGAGAAGGACTCCTACCCAC  
GCTTCCTGAAGTCGCTGCTTACCGGGACCTGGCTGCCCAAGCCTCAGCCGCTCTGCCACTCTGTCCAGCTGCA  
GCCTGGACGAGCCCTCACACACC**TGAG**TCTCCACGGCAGTGAGGAAGCCAGCCGGGAAGAGAGGTTGAGTCACCC  
ATCCCCGAGGTGGCTGCCCCGTGTGTTGGGAGGCAGGTTCTGCAAAGCAAGTGCAAGAGGACAAAAAAAAAAAAA  
AAAAAAAAAATGCGCTCCAGCAGCCTGTTTGGGAAGCAGCAGTCTCTCCTTCAGATACTGTGGGACTCATGCTG  
GAGAGGAGCCGCCCACTTCCAGGACCTGTGAATAAGGGCTAATGATGAGGGTTGGTGGGGCTCTCTGTGGGGCAA  
AAAGGTGGTATGGGGGTAGCACTGGCTCTCGTTCTCACC GGAGAAGGAAGTGTCTAGTGTGGTTTAGGAAACA  
TGTGGATAAAGGGAACCATGAAAAATGAGAGGAGGAAAGACATCCAGATCAGCTGTTTTGCCGTGTGCTCAGTTGA  
CTCTGATTGCATCCTGTTTTCTTAATTCACAGACTGTTCTGGGCACGGAAGGGACCCTGGATGTGGAGTCTTCCC  
CTTTGGCCCTCCTCACTGGCCTCTGGGCTAGCCAGAGTCCCTTAGCTTGTACCTCGTAACACTCCTGTGTGTCT  
GTCCAGCCTTGCAGTCATGTCAAGGCCAGCAAGCTGATGTGACTCTTGCCCCATGCGAGATATTTATACCTCAA  
CACTGGCCTGTGAGCCCTTTCCAAGTCAGTGGAGAGCCCTGAAAGGAGGCTCACTTGAATCCAGCTCAGTGCTCT  
GGGTGGCCCCCTGCAGGTGGCCCCCTGACCCTGCGTTGCAGCAGGGTCCACCTGTGAGCAGGCCCGCCCTGGGGCC  
TCTTCCTGGATGTGCCCTCTCTGAGTTCGTGTCTGTCTCTTGAGGACAGGGCCAGGAGAACAAAGTGTGGAGGC  
CTCGGGGAGTGGCTTTTCCAGCTCTCATGCCCCGAGTGTGGAACAAGGCAGAAAAGGATCCTAGGAAATAAGTC  
TCTTGGCGGTCCCTGAGAGTCTGCTGAAATCCAGCCAGTGTTTTTTGTGGTATGAGAACAGGCAAAAAGAGATG  
CCCCGAGATAGAAGGGGAGCCTTGTGTTTTCTTCTGCAGACGTGAGATGAACACTGGAGTGGGCAGAGGTGGCM  
CAGGACCATGGCACCCCTAGAGTGCAGAAGCTGGGGGGAGAGGCTGCTTCGAAGGGCAGGACTGGGGATACCTGC  
CTGTACCTCAGGGCATCACTGAACAAACATTTCTGATGGSAACTCCTGCGGCAGAGCCAGGCTGGGGAAGTG  
AACTACCCAGGGCAGCCCCCTTGTGGCCCAGGATAATCAACACTGTTCTCTCTGTACCATGAGCTCCTCCAGGAG  
ATTATTTAAGTGTATTGTATCATTGGTTTTCTGTGATTGTGATAACATTGTTTTTGTATTGTTGGTGCTGTTGT  
TATTTATTATTGTAATTTAGTTTGCCTCTACTGGAGAATCTCAGCAGGGGTTTACGCCTGACTGTCTCCCTTTC  
TCTACCAGACTCTACCTCTGAATGTGCTGGGAACCTCTTGAGCCTGTGAGGAACCTCACTGTTTAAATATTT  
ATTTATTGTGACAAATGGAGCTGGTTTCCTAGATATGAATGATGTTTGCAATCCCCATTTTCTGTTTCAGCATG  
TTATATTCTTATAAAATAAAAGCAAAAGTCAATATGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 645**

MCRTLAAFPPTCLERAKEFKTRLGIFLHKSELGCDTGSTGKSEWGSKHSKENRNFSEDVLGWRESFDLLLSSKNG  
VAAFHAFKTEFSEENLEFWLACEEFKKIRSATKLASRAHQIFEEFICSEAPKEVNIDHETRELTRMNLQTATAT  
CFDAAQGKTRTLMKDSYPRFLKSPAYRDLAAQASAASATLSSCSLDEPSHT

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**FIGURE 646**

GGGGCTACCGCGCCTTTGCTTCCTGGCGCACGCGGAGCCTCCTGGAGCCTGCCACCATCCTGCCTACTACGTGCT  
GCCCTGCGCCCGCAGCCATGTGCCGCACCCTGGCCGCCTTCCCCACCACCTGCCTGGAGAGAGCCAAAGAGTTCA  
AGACACGTCTGGGGATCTTTCTTCACAAATCAGAGCTGGGCTGCGATACTGGGAGTACTGGCAAGTCCGAGTGGG  
GCAGTAAACACAGCAAAGAGAATAGAACTTCTCAGAAGATGTGCTGGGGTGGAGAGAGTCGTTTCGACCTGCTGC  
TGAGCAGTAAAAATGGAGTGGCTGCCTTCCACGCTTTCTGAAGACAGAGTTCAGTGAGGAGAACCTGGAGTTCT  
GGCTGGCCTGTGAGGAGTTCAAGAAGATCCGATCAGCTACCAAGCTGGCCTCCAGGGCACACCAGATCTTTGAGG  
AGTTTCAATTTGCAGTGAGGCCCCCTAAAGAGGTCAACATTGACCATGAGACCCGCGAGCTGACGAGGATGAACCTGC  
AGACTGCCACAGCCACATGCTTTGATGCGGCTCAGGGGAAGACACGTACCCTGATGGAGAAGGACTCCTACCCAC  
GCTTCCTGAAGTCGCCTGCTTACCGGGACCTGGCTGCCCAAGCCTCAGCCGCCTCTGCCACTCTGTCCAGCTGCA  
GCCTGGACGAGCCCTCACACACCTGAGTCTCCACGGCAGTGAGGAAGCCAGCCGGGAAGAGAGGTTGAGTCACCC  
ATCCCCGAGGTGGCTGCCCCGTGTGTGGGAGGCAGGTTCTGCAAAGCAAGTGCAAGAGGACAAAAA  
AAAAAATGCGCTCCAGCAGCCTGTTTGGGAAGCAGCAGTCTCTCCTTCAGATACTGTGGGACTCATGCTG  
GAGAGGAGCCGCCCCTTCCAGGACCTGTGAATAAGGGCTAATGATGAGGGTTGGTGGGGCTCTCTGTGGGGCAA  
AAAGGTGGTATGGGGGTTAGCACTGGCTCTCGTTCTCACCGGAGAAGGAAGTGTCTAGTGTGGTTTAGGAAACA  
TGTGGATAAAGGGAACCATGAAAATGAGAGGAGGAAAGACATCCAGATCAGCTGTTTTGCCTGTTGCTCAGTTGA  
CTCTGATTGCATCCTGTTTTCTTAATTCACAGACTGTTCTGGGCACGGAAGGGACCCTGGATGTGGAGTCTTCCC  
CTTTGGCCCTCCTCACTGGCCTCTGGGCTAGCCAGAGTCCCTTAGCTTGTACCTCGTAACACTCCTGTGTGTCT  
GTCCAGCCTTGCACTCATGTCAAGGCCAGCAAGCTGATGTGACTCTTGCCCCATGCGAGATATTTATACCTCAA  
CACTGGCCTGTGAGCCCTTTCCAAGTCAGTGAGAGCCCTGAAAGGAGGCTCACTTGAATCCAGCTCAGTGCTCT  
GGGTGGCCCCCTGCAGGTGGCCCCCTGACCCTGCGTTGCAGCAGGGTCCACCTGTGAGCAGGCCCGCCCTGGGGCC  
TCTTCCTGGATGTGCCCTCTCTGAGTTCTGTGCTGTCTCTTGAGGCAGGGCCCAGGAGAACAAAGTGTGGAGGC  
CTCGGGGAGTGGCTTTTCCAGCTCTCATGCCCCGAGTGTGGAACAAGGCAGAAAAGGATCCTAGGAAATAAGTC  
TCTTGGCGGTCCCTGAGAGTCCTGCTGAAATCCAGCCAGTGTTTTTGTGGTATGAGAACAGGCAAAAAGAGATG  
CCCCGAGATAGAAGGGGAGCCTTGTGTTTTCTTCTGCAGACGTGAGATGAACACTGGAGTGGGCAGAGGTGGCM  
CAGGACCATGGCACCCTTAGAGTGCAGAAGCTGGGGGAGAGGCTGCTTCGAAGGGCAGGACTGGGGATACCTGC  
CTGTACCTCAGGGCATCACTGAACAAACATTTCTGATGSSAACTCCTGCGGCAGAGCCCAGGCTGGGGAAGTG  
AACTACCCAGGGCAGCCCCCTTTGTGGCCCAGGATAATCAACACTGTTCTCTGTACCATGAGCTCCTCCAGGAG  
ATTATTTAAGTGATTGTATCATTGGTTTTCTGTGATTGTGATAACATTGTTTTTGTATTGTTGGTGCTGTTGT  
TATTTATTATTGTAATTTAGTTTGCCTCTACTGGAGAATCTCAGCAGGGGTTTCAGCCTGACTGTCTCCCTTTC  
TCTACCAGACTCTACCTCTGAATGTGCTGGGAACCTCTTGAGCCTGTGAGGAATCCTCACTGTTTAAATATTT  
ATTTATTGTGACAAATGGAGCTGGTTTTCTAGATATGAATGATGTTTGAATCCCCATTTTCTGTTTCAGCATG  
TTATATTCTTATAAAATAAAAGCAAAAGTCAAATATGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 647**

MCRTLAAFPPTCLERAKEFKTRLGIFLHKSELGCDTGSTGKSEWGSKHSKENRNFSEDVLGWRESFDLLLSSKNG  
VAAFHAFKTEFSEENLEFWLACEEFKKIRSATKLASRAHQIFEEFICSEAPKEVNIDHETRELTRMNLQTATAT  
CFDAAQGKTRTLMEKDSYPRFLKSPAYRDLAAQASAASATLSSCSLDEPSHT

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**FIGURE 648**

GAGCCCAGCCGAGCGTCCGCCGCTGCCCGTGCCTCTGCGCTCCGCGCC**ATG**GCCGGCCTCAACTCCCTGGAGG  
CGGTGAAACGCAAGATCCAGGCCCTGCAGCAGCAGGCGGACGAGGCGGAAGACCGCGCGCAGGGCCTGCAGCGGG  
AGCTGGACGGCGAGCGCGAGCGGGCGGAGAAAGCTGAAGGTGATGTGGCCGCCCTCAACCGACGCATCCAGCTCG  
TTGAGGAGGAGTTGGACAGGGCTCAGGAACGACTGGCCACGGCCCTGCAGAAGCTGGAGGAGGCAGAAAAAGCTG  
CAGATGAGAGTGAGAGAGGAATGAAGGTGATAGAAAACCGGGCCATGAAGGATGAGGAGAAGATGGAGATTCAGG  
AGATGCAGCTCAAAGAGGCCAAGCACATTGCGGAAGAGGCTGACCGCAAATACGAGGAGGTAGCTCGTAAGCTGG  
TCATCCTGGAGGGTGAGCTGGAGAGGGCAGAGGAGCGTGCGGAGGTGTCTGAACTAAAATGTGGTGACCTGGAAG  
AAGAACTCAAGAATGTTACTAACAATCTGAAATCTCTGGAGGCTGCATCTGAAAAGTATTCTGAAAAGGAGGACA  
AATATGAAGAAGAAATTAACTTCTGTCTGACAACTGAAAGAGGCTGAGACCCGTGCTGAATTTGCAGAGAGAA  
CGGTTGCAAACTGGAAAAGACAATTGATGACCTGGAAGAGAACTTGCCAGGCCAAAGAAGAGAACGTGGGCT  
TACATCAGACACTGGATCAGACACTAAACGAACTTAACTGTATAT**TAAG**CAAAACAGAAGAGTCTTGTTCACAG  
AAACTCTGGAGCTCCGTGGGTCTTTCTCTTCTTGTAAGAAGTTCCTTTTGTTATTGCCATCTTCGCTTTGCTG  
GAAATGTCAAGCAAATTATGAATACATGACCAAATATTTTGATCGGAGAAGCTTTGAGCACCAGTTAAATCTCA  
TTCCTTCCCTTTTTTTTTTCAAATGGCACCAGCTTTTTCAGCTCTCTTATTTTTTCCTTAAGTAGCATTTATTCCT  
AAGGTAGGCAGGGTATTTCTAGTAAGCATACTTTCTTAAGACGGAGGCCATTTGGTTCCTGGGAGAATAGGCAG  
CCCCACACTTTGAAGAATACAGACCCCAGTATCTAGTCGTGGATATAATTAACCGCTGAAGACCATAACCTTTT  
GGGTCAACTGTTGGTCAAATATAGGAGAGACCAGGGACCATCACATGGGTAGGGATTTTCCATCCAGAGCCAAT  
AAAAGGACTGGTGGGGGCCGGGGTGGCTATTGTGGGAAGTCATAACCCACAGATAGATCAACCTAAGAATCCTG  
GCCCTTCTCCACTCTCCACCATGCAGGACAAACATCTTCTCAAGCAGTCAACGTAGAATGCTTGGGAAATAGTCA  
TAATTACCCACATATAGTAATTAATAGATGGTAATTAATTGATCCTTGATGTGATGTTCTTTGCATATTTCTT  
CATTCTAAAGTTGTTCCCTGGCCGGGAGCGTTTGCTTTCGCTGTAATCCCAACACTTTGGGAGGCCAGGACAGA  
TCACTTGAGGTCAGGAGTTCGAGACCAGCCCAGCCAACATGGCGAAACCATGTCTCTACTAAAAATACAAAAATT  
ATGGTGACGCCTGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGGCAGGAGGATCGCTTGAACCCAGGAAGTGGAG  
ACTGCAGTGAGCCGATATCGCACACAGCGCTCCAGCCTGGTCGACAGAGTGAGACTCCATCTCAAGAAAAAATA  
AAAAATAAGTTGTTCTCTGAAGAGCAAATGTCTCATTCCAGTAATGACCCACTCAGCAGGAATATGGTGGAGTTC  
AGTCCAATTCAGGTCAGCCATATCCAAAAGACCACAAGTCATTACTAAGTTGAGCAAAAGAGTTTTTATCTATTA  
GCAGAAAGGGCCTCTCTGGCAGCAGAGATTAAAAACTGGCCCACTTCATTTCCATACTTCAGGGAACAGCAAAT  
TGAGGATTTACTTATCTAGGACTT

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**FIGURE 649**

MAGLNSLEAVKRKIQALQQQADEAEDRAQGLQRELDGERERREKAEGDVAALNRRIQLVEEELDRAQERLATALQ  
KLEEAekaadesERGMKVIENRAMKDEEKMEIQEMQLKEAKHIAEEADRKYEEVARKLVILEGELERAEEAEVS  
ELKCGDLEEEELKNVTNNLKSLEAASEKYSEKEDKYEEEIKLLSDKLKEAETRAEFAERTVAKLEKTIDDLEEKLA  
QAKEENVGLHQTLTDQTLNELNCI

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**FIGURE 650**

GTCTGCCGAGCTGTGAGGGCAACGGAGGGGAAATAAAAGGGAACGGCTCCGAATCTGCCCCAGCGGCCGCTGCG  
AGACCTCGGCGCCGACATCGCGACAGCGAAGCGCTTTGCACGCCAGGAAGGTCCCCTCTATGTGCTGCTGAGCCG  
GTCCTGGACGCGACGAGCCCCGCCCTCGGTCTTCGGAGCAGAAATCGCAAAAACGGAAGGACTGGA**AATGG**CAGAC  
CATATGATGGCCATGAACCACGGGCGCTTCCCCGACGGCACCAATGGGCTGCACCATCACCCCTGCCACCGCATG  
GGCATGGGGCAGTTCCCGAGCCCCCATCACCACCAGCAGCAGCAGCCCCAGCACGCCCTTCAACGCCCTAATGGGC  
GAGCACATACTACTACGGCGCGGGCAACATGAATGCCACGAGCGGCATCAGGCATGCGATGGGGCCGGGGACTGTG  
AACGGAGGGCACCCCCCGAGCGCGCTGGCCCCCGCGGCCAGGTTTAACTCCAGTTTATGGGTCCCCCGGTG  
GCCAGCCAGGGAGGCTCCCTGCCGGCCAGCATGCAGCTGCAGAAGCTCAACAACCAAGTATTTCAACCATCACCCC  
TACCCCCACAACCACTACATGCCGGATTTGCACCCTGCTGCAGGCCACCAGATGAACGGGACAAACCAGCACTTC  
CGAGATTGCAACCCCAAGCACAGCGGGCAGCAGCACCCCCGGCGGCTCGGGCGGCAGCAGCACCCCCGGCGGC  
TCTGGCAGCAGCTCGGGCGGGCGGCGGGCAGCAGCAACAGCGGCGGCGGCAGCGGCAGCGGCAACATGCCCGCC  
TCCGTGGCCACGTCCCCGCTGCAATGCTGCCGCCAATGTCTAGACACTGATTTTCATCGACGAGGAAGTTCTT  
ATGTCCTTGGTGATAGAAATGGGTTTGGACCGCATCAAGGAGCTGCCCAGACTCTGGCTGGGGCAAAACGAGTTT  
GATTTTATGACGGACTTCGTGTGCAAACAGCAGCCAGCAGAGTGAGCTGT**TGACT**CGATCGAAACCCCGCGAA  
AGAAATCAAACCCCCAACTTCTTCGGCGTGAATTTAAAGAAACATTCCCTTAGACACAGTATCTCACTTTTCAGA  
TCTTGAAAGGTTTGAGAACTTGGAACAAAGTAACTATAAACTTGTACAAATTGGTTTTAAAAAAATTGCTGC  
CACTTTTTTTTCCCTGTTTTTGTTCGTTTTTGTAGCCTTGACATTACCCACCTCCCTTATGTAGTTGAAATATC  
TAGCTAACTTGGTCTTTTTTCGTTGTTTGTACTCCTTTCCCTCACTTTCTCCAGTGCTCAACTGTTAGATAT  
TAATCTTGGCAAACCTGCTTAATCTTGTGGATTTTGTAGATGGTTTTCAAATGACTGAACTGCATTTCAGATTTACGA  
GTGAAAGGAAAAATTGCATTAGTTGGTTGCATGAACCTTTGAAGGGCAGATATTACTGCACAACTGCCATCTCGC  
TTCATTTTTTTTAACTATGCATTTGAGTACAGACTAATTTTTTAAATATGCTAACTGGAAGATTAAACAGATGTG  
GCCCCAACTGTTCTGGATCAGGAAAGTCATACTGTTCACTTTCAAGTTGGCTGTCCCCCGCGCCCCCCCCCA  
CCCCCATATGTACAGATGATAATAGGGTGTGGAATGTCGTCAGTGGCAAACATTTACAGATTATTTTGTTCCTG  
TCTTCAACATTTTGTACACTGTGCTAATAGTTATATTAGTACATGAAAAGATACTACTGTGTTGAAAGCCTTTT  
AGGAAATTTTGTACAGTATTTTGTACAAAACATTTTTTTGAAAAAATACTTGTTAATTTATTCTATTTTAATTG  
CCAATGTCAATAAAAAAGTTAAGAAATAAAAAAAAAAAAAAAAAA

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**FIGURE 651**

MADHMMAMNHGRFPDGTNGLHHHPAHRMGMGQFPSPHHHQQQQPQHAFNALMGEHIHYGAGNMNATSGIRHAMGP  
GTVNGGHPPSALAPAARFNNQFMGPPVASQGGSLPASMQLQKLNNQYFNHHPYPHNHYMPDLHPAAGHQMNNGTN  
QHFRDCNPKHSGGSSTPGGSGGSSTPGGSGSSSGGAGSSNSGGGSGSGNMPASVAHVPAAMLPPNVIDTDFIDE  
EVLMSLVIEMGLDRIKELPELWLGQNEFDFMTDFVCKQQPSRVSC



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**FIGURE 652**

**FIGURE 652**

AATCTCGCGAAACCCGCGGAGCGGCGCGCTGGCTATCTGAGACGAGCGGGGCGGAAACCGGGAGTTGCGCCGCCGCTCGG  
 CGCGCGGGGCTCCGTCGCGGGCGCAGCCCCGCGGGTTCGCCCTCCCGTGCCTCGCCCGCGGACACCCTGGCCGTGGA  
 CACCCTGGCCGTGGGCACCCGCGGGGCGCGGCGCGGGCGCTGCGCGGGCGGCGGGCGGCGGCA**ATGA**AGGTCACGTGC  
 CTCGACGGGCGCCAGCTGCGCAAGATGCTCCGCAAGGAGGCGGCGGCGCGCTGCGTGGTGCTCGACTGCCGGCCC  
 TATCTGGCCTTCGCTGCCTCGAACGTGCGCGGCTCGCTCAACGTCAACCTCAACTCGGTGGTGCTGCGGCGGGCC  
 CGGGGCGGCGCGGTGTGCGGCGGCTACGTGCTGCCCGACGAGGCGGCGCGCGCGCGGCTCCTGCAGGAGGGCGGG  
 GCGGGCGTTCGCGGCCGTGGTGGTGCTGGACCAGGGCAGCCGCCACTGGCAGAAGCTGCGAGAGGAGAGCGCCGCG  
 CGTGTCTCTCACCTCGCTACTCGCTTGCCTACCCGCCGGCCCGCGGGTCTACTTCCTCAAAGGGGGATATGAG  
 ACTTTCTACTCGGAATATCCTGAGTGTTGCGTGGAATGTAAAACCCATTTACACAAGAGAAGATTGAGAGTGAGAGA  
 GCCCTCATCAGCCAGTGTGGAAAACAGTGGTAAATGTCAGCTACAGGCCAGCTTATGACCAGGGTGGCCCAAGTT  
 GAAATCCTTCCCTTCCCTCTACCTTGGAAGTGCTACCATGCATCCAAGTGCAGAGTTCCTCGCCAACTTGCACATC  
 ACAGCCCTGCTGAATGTCTCCCGACGGACCTCCGAGGCCTGCATGACCCACCTACACTACAAATGGATCCCTGTG  
 GAAGACAGCCACACGGCTGACATTAGCTCCCACTTTCAAGAAGCAATAGACTTCATTGACTGTGTACAGGAAAAG  
 GGAGGCAAGGTCTTGGTCCACTGTGAGGCTGGGATCTCCCGTTCACCCACCATCTGCATGGCTTACCTTATGAAG  
 ACCAAGCAGTTCGCGCTGAAGGAGGCCTTCGATTACATCAAGCAGAGGAGGAGCATGGTCTCGCCCAACTTTGGC  
 TTCATGGGCCAGCTCCTGCAGTACGAATCTGAGATCCTGCCCTCCACGCCCAACCCCAAGCCTCCCTCCTGCCAA  
 GGGGAGGCGAGCAGGCTCTTCACTGATAGGCCATTTGCAGACACTGAGCCCTGACATGCAGGGTGCCTACTGCACA  
 TTCCCTGCCTCGGTGCTGGCACCGGTGCCTACCCACTCAACAGTCTCAGAGCTCAGCAGAAGCCCTGTGGCAACG  
 GCCACATCCTGCT**TAAA**AACTGGGATGGAGGAATCGGCCAGCCCCAAGAGCAACTGTGATTTTTGTTTTTAAGACT  
 CATGGACATTTTCATACCTGTGCAATACTGAAGACCTCATTCTGTCTATGCTGCCCCAGTGAGATAGTGAGTGGTCA  
 CCAGGCTTGCAAATGAACCTCAGACGGACCTCAGGCTAGGTTCTCGGGACTGAAGGAAGGCCAAGCCATTACGGG  
 AGCACAGCATGTGCTGACTACTGTACTTCCAGACCCCTGCCCTCTTGGGACTGCCAGTCTTGCACCTCAGAGT  
 TCGCCTTTTCATTTCAAGCATAAGCCAATAAAATACCTGCAGCAACGTGGGAGAAAGAAGTTGCTGGACCAGGAGA  
 AAAGGCAGTTATGAAGCCAATTCATTTTGAAGGAAGCACAAATTTCCACCTTATTTTTTGAACCTTTGGCAGTTTCA  
 ATGTCTGTCTCTGTTGCTTCGGGGCATAAGCTGATCACCGTCTAGTTGGGAAAGTCACCCTACAGGGTTTGTAGG  
 GACATGATCAGCATCCTGATTTGAACCCTGAAATGTTGTGTAGACACCCTCTTGGGTCCAATGAGGTAGTTGGTT  
 GAAGTAGCAAGATGTTGGCTTTTTCTGGATTTTTTTTGCCATGGGTCTTCACTGACCTTGGACTTTGGCATGATT  
 CTTAGTCATACTTGAACCTGTCTCATTCCACCTCTTCTCAGAGCAACTCTTCTTTGGGAAAAGAGTTCTTCAGA  
 TCATAGACCAAAAAAGTCATACCTTCGAGGTGGTAGCAGTAGATTCCAGGAGGAGAAGGGTACTTGCTAGGTATC  
 CTGGGTGAGTGGCGGTGCAAACCTGGTTTCCCTCAGCTGCCGTGCTCTTCTGTGTGCTTATGTCTCTTGTGACAATTG  
 TTTTCTCCCTGCCCTGGAGGTTGTCTTCAACTGTGGACTTCTGGGATTGTCAGATTTTGAACGTGGTACTAC  
 TTTTTTTTCTTTTTGTCTGTTAGTTATTTCTCCAGGGGAAAAGGCAATAATTTTCTAAGACCCGTGTGAATGTGA  
 AGAAAAGCAGTATGTTACTGGTTGTTGTTGTTGTTCTTGTTTTTTATATGTAAATAAAAAATAGTGAAAGGAG

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**FIGURE 653**

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**FIGURE 654**

GGCACGAGGAAGCTACTCAGATAAGAGGCTCCAAGAGGACATTTTTGGATGTGAAAAACAATGAGAAGGAGGACA  
ACACACATTTACAATCGTCTTAATTTTGTACTCAGAAAAAGGATGTGAAGACAATGCACAGGGAATACAATAGTT  
TCAGATCTGTGTACAGTTTCCTTTTGCTTCATCTCCTGCAACAATGTAATGAAGACACCATGATATCATTAAACAT  
TTCACACAAAAGGAAAAATGAGGCTGAAATGGTGTGGGCAAGGCCAGGAATCTGGAGCATCCCTAACCAAGCAGC  
AGAGCACCTGGGATAGAGAAAGTGCTCAAGAATGTTCACTTACTGATTACTACAATCAAAAAAGATACGACACT  
AATTTACCACATTCTTCTTACTTATTTTATGAGATACTATTCTTCCAAGGTGGAGAAAGTGGAGAAAGTAGAGTG  
ACGCAGCTAAGGGAGTAAATCGACCCTCAGCCAACAAGTGGCAAAAGCCTGAAGAAAGTGATCAAGATCACTGAT  
GACCCCGCGGCCCATCTCCAAGGGGGCGGGTATCACAACCCCGACGCCACACCACGTATCATTCCGCAAACTCC  
CGCGCCTCCACGCAGAACTGGCAAGAGGGAAGGCGAGACAGCAGTGAACAGCTGGTACGCAGCACCCACAGCAC  
CGCGGCAGCAGCTAGTGCCGACTCCCGCCTAGCTCTTTTGA CTCTGTTTCGCGGGAAGAATGGGGAAACAGTAAGG  
TTGCGGCGCCTCCCGCGAGACGAGGTACCTGAGGCTGGCCCCGAGTCCCCCGCCGCACCAGCACCGGAGCTTCA  
CACCCCACTTCCGGGGTCAAGTCACCGCCGGAATCCTGTGATCGCAGAAAGGTAGTCTCAGGTTCCGCCCCAT  
CCAAGTCCCGCCTCCACTGCCTCTCGCCCTGTATCTGTCAACTTCCGGGACGCCGCGCGTCACTAAGCAGCCAAT  
CTCCACTTCCGGACTCATCCAGCCCCCTTCTCCACCCCTTTT CAGAGACAGCGCGATTGCGATTTAGGTTTCCGCGC  
ATTTAATTGGCGAAGCTGGAGCGCTAGTCTTCGCTGATTGGTGCCGAGAAATCTGCCCCATAGACACCCGCGGGG  
CGCACAGTTTCAGTCGTCCGTGGGTTTCCCGCCAGCCGCAGTCTTGGACCATAATCATGGTGGACATGATGGACT  
TGCCAGGTCGCGCATCAACGCCGGCATGCTAGCTCAATTCATCGACAAGCCTGTCTGCTTCGTAGGGAGGCTGG  
AAAAGATTCATCCACCGGAAAAATGTTTATTCTTTCAGATGGAGAAGGAAAAAATGGAACCATCGAGTTGATGG  
AACCCCTTGATGAAGAAATCTCTGGAATTGTGGAAGTGGTTGGAAGAGTAACCGCCAAGGCCACCATCTTGTGTA  
CATCTTATGTCCAGTTTAAAGAAGATAGCCATCCTTTTGATCTTGGACTTTACAATGAAGCTGTGAAAATTATCC  
ATGACTTCCCTCAGTTTTATCCTTTAGGGATTGTGCAACATGATTGATCTTGATGGATTTTCATACGATTGTAAA  
TGAGCTATATTAAAGTCTATTAAAGGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 655**

MVDMMDLPRSRINAGMLAQFIDKPVCFVGRLEKIHPTGKMFILSDGEGKNGTIELMEPLDEEISGIVEVVGRVTA  
KATILCTSYVQFKEDSHPFDLGLYNEAVKIIHDFPQFYPLGIVQHD

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**FIGURE 656**

AGCCGCCGCTCGCCGCTTCCCCTCGTCGGAGCGGCCGCTCGTCCGCCCGGCTTGAGGCCCGCGGGGAGCGCGGC  
GCAATTCGTGCGCCCGCGGGGGGCGGCCTCCCGGCATCTTCGCGGCGACCAAGGACTACCAGGAAGGGGAGCGG  
CTGGGATGGCGCGTCCGCGGCCCGCGAGTACAAAGCGGGCGACCTGGTCTTCGCCAAGATGAAGGGCTACCCGC  
ACTGGCCGGCCCGGATTGATGAACTCCAGAGGGCGCTGTGAAGCCTCCAGCAAACAAGTATCCTATCTTCTTTT  
TTGGCACCCATGAAACTGCATTTCTAGGTCCCAAAGACCTTTTCCATATAAGGAGTACAAAGACAAGTTTGAA  
AGTCAAACAAACGGAAGGATTTAACGAAGGATTGTGGGAAATAGAAAATAACCCAGGAGTAAAGTTTACTGGCT  
ACCAGGCAATTCAGCAACAGAGCTCTTCAGAACTGAGGGAGAAGGTGGAAATACTGCAGATGCAAGCAGTGAGG  
AAGAAGGTGATAGAGTAGAAGAAGATGGAAAAGGCAAAAGAAAGAATGAAAAAGCAGGCTCAAAACGGAAAAAGT  
CATATACTTCAAAGAAATCCTCTAAACAGTCCCGGAAATCTCCAGGAGATGAAGATGACAAAGACTGCAAAGAAG  
AGGAAAAACAAAGCAGCTCTGAGGGTGGAGATGCGGGCAACGACACAAGAAACACAACCTTCAGACTTGCAAAAA  
CCAGTGAAGGGACCTAACTACCATAATGAATGCTGCATATTAAGAGAAACCACAAGAAGGTTATATGTTTGGTTG  
TCTAATATTCTTGATTGATATGAACCAACACATAGTCCTTGTGTGTCATTGACAGAACCCAGTTTGTATGTAC  
ATTATTCATATTCTCTCTGTGTGTTTCGGGGGAAAAGACATTTTAGCCTTTTTTAAAAGTTACTGATTTAAT  
TTCATGTTATTTGGTTGCATGAAGTTGCCCTTAACCACTAAGGATTATCAAGATTTTTCGCGCAGACTTATACATG  
TCTAGGATCCTTTTATCAAGGCAGTTATGATCATCGTTTTCTGCCTTGACCCCAACCATCATCAAACTCAGTT  
AAATATAAATTAACATTTTTTAGATGACCACTCAACATAATGCTTAAGAATGGAATTTCTCTCTGTGACAGAAC  
CCAGGAATTAATTCCTAAATACATAACGTTGGTATATTGAAGACGAAATTAATTTGTCCTTCAGTTTTGAGGCC  
ATGTGTAAAGTTTAACCATATTGTAAATATCTATTCCGTATTAGAAATAGCTAGTTGACAGCTTATACTTCTCA  
AAATTCATATTGTTATGTACACAACTAAGTTTCTATATGTGAAGTTAGTGAGTCTTTTTGTGTTACTCCAAAT  
AAAGGCAATGATTTATTTTTTCCCAGTGCCAATACAATTTTGAGCTAAGCACTCAAGGTGGATACTTTACATTT  
TAAAGCTGGAATCAGCAACAGCCCTATGGGAAACCAGACAAAGCATTGACTTTTAAATGTAGACTTTTAAATAA  
ACTGTTTTCTTTGGAACACTACAATTAGAATAGTTAATATTCATCCTTAAACCATTATTATGTGTACATTATTGTT  
GCTATTGTGATAATAGAGAATTTATTTATTTTATGCCAGCTTATATTGTGAGAACACATTTAGTCAGTTTGGG  
TTTTATCAATCCTGTTAATGCTTGTCTTGGAAACATCTTTCGCGTATTCACGGTTTGTAGTTGAAAAGTTTACTG  
TAAAAAATCAAAAACAAAAAATGTATTGTTTTTACAGAATAAATTTATTGGGATGTGTACTGGGAGTAAGATT  
TGAGGTTGTAAGCAAATAAGTTAGTGTAATTTGGCTTCATATATGTAACGTGAGGTATTAATGTAATTCATATA  
TTAAAGCAAAAATGTTTCGCAGC

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**FIGURE 657**

MARPRPREYKAGDLVFAKMGYPHWPARIDELPEGAVKPPANKYPIFFFGTHETAFLGPKDLFPYKEYKDKFGKS  
NKRKGFNEGLWEIENNPVGKFTGYQAIQQSSSETEGEGGNTADASSEEEGDRVEEDGKGKRKNEKAGSKRKKS  
TSKKSSKQSRKSPGDEDDKDCKEENKSSSEGGDAGNDTRNTTSDLQKTSEGT

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**FIGURE 658**

AGCCGCCGCTCGCCGCTTCCCTCGTCGGAGCGGCCGCTCGTCCGCCCGGCTTGAGGCCCGCGGGGAGCGCGGC  
GCAATTCGTCGGCCCGCGGGGGGCGGCCTCCCGCATCTTCGCGGCGACCAAGGACTACCAGGAAGGGGAGCGG  
CTGGGATGCGCGTCCGCGGCCCGCGAGTACAAAGCGGGCGACCTGGTCTTCGCCAAGATGAAGGGCTACCCGC  
ACTGGCCGGCCCGGATTGATGAACTCCAGAGGGCGCTGTGAAGCCTCCAGCAAACAAGTATCCTATCTTCTTT  
TTGGCACCCATGAAACTGCATTTCTAGGTCCCAAAGACCTTTTTCCATATAAGGAGTACAAAGACAAGTTTGAA  
AGTCAAACAAACGGAAAGGATTTAACGAAGGATTGTGGGAAATAGAAAATAACCCAGGAGTAAAGTTTACTGGCT  
ACCAGGCAATTCAGCAACAGAGCTCTTCAGAACTGAGGGAGAAGGTGGAAATACTGCAGATGCAAGCAGTGAGG  
AAGAAGGTGATAGAGTAGAAGAAGATGGAAAAGGCAAAAGAAAGAAATGAAAAAGCAGGCTCAAAACGGAAAAAGT  
CATATACTTCAAAGAAATCCTCTAAACAGTCCCGGAAATCTCCAGGAGATGAAGATGACAAAGACTGCAAAGAAG  
AGGAAAAACAAAGCAGCTCTGAGGGTGGAGATGCGGGCAACGACACAAGAAACACAACCTTCAGACTTGCAGAAAA  
CCAGTGAAGGGACCTAACTACCATAATGAATGCTGCATATTAAGAGAAACCACAAGAAGGTTATATGTTTGGTTG  
TCTAATATTCTTGATTTGATATGAACCAACACATAGTCCTTGTGTGTCATTGACAGAACCCCAAGTTTGTATGTAC  
ATTATTCATATTCTCTCTGTTGTGTTTTCGGGGGGAAAGACATTTTAGCCTTTTTTAAAAGTTACTGATTTAAT  
TTCATGTTATTTGGTTGCATGAAGTTGCCCTTAACCACTAAGGATTATCAAGATTTTTGCGCAGACTTATACATG  
TCTAGGATCCTTTTATCAAGGCAGTTATGATCATCGTTTTCTGCCTTGACCCCAACCATCATCAAACACTCAGTT  
AAATATAAATTAACATTTTTTAGATGACCACTCAACATAATGCTTAAGAATGGAATTCCTCTCTGTGACAGAAC  
CCAGGAATTAATTCCTAAATACATAACGTTGGTATATTGAAGACGAAATTAAAATTGTCCTTCAGTTTTGAGGCC  
ATGTGTAAAGTTTAACCATATTGTAAAATATCTATTCCGTATTAGAAATAGCTAGTTGACAGCTTATACTTCTCA  
AAATTCATATTGTTATGTACACAACTAAGTTTCTATATGTGAAGTTAGTGAGTCTTTTTGTGTTACTCCAAAT  
AAAGGCAATGATTTATTTTTTTCCAGTGCCAATACAATTTGAGCTAAGCACTCAAGGTGGATACTTTACATTT  
TAAAGCTGGAATCAGCAACAGCCCTATGGGAAACCAGACAAAGCATTGACTTTTAAATGTAGACTTTTAAATAA  
ACTGTTTTCTTTTGGAACTACAATTAGAATAGTTAATATTCATCCTTAAACCATTATTATGTGTACATTATTGTT  
GCTATTGTGATAATAGAGAATTTTATTTATTTTTATGCCAGCTTATATTGTGAGAACACATTTAGTCAGTTTGGG  
TTTTATCAATCCTGTTAATGCTTGTCTTGGAAACATCTTTCGCGTATTCACGGTTTGTAGTTGAAAAGTTTACTG  
TAAAAAATCAAAAAACAAAAAATGTATTGTTTTTACAGAATAAATTTATTGGGATGTGTACTGGGAGTAAGATT  
TGAGGTTGTAAGCAAACCTAAGTTAGTGTAATTTGGCTTCATATATGTAACGTGAGGTATTAATGTAATTCATATA  
TTAAAGCAAAAATTGTTTCGCAGC

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**FIGURE 659**

MARPRPREYKAGDLVFAKMGYPHWPARIDELPEGAVKPPANKYPIFFFGTHETAFLGPKDLFPYKEYKDKFGKS  
NKRKGFNEGLWEIENNPVGKFTGYQAIQQSSSETEGEGGNTADASSEEEGDRVEEDGKGKRKNEKAGSKRKKS  
TSKKSSKQSRKSPGDEDDKDCKEEENKSSSEGGDAGNDTRNTTSDLQKTSEGT



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**FIGURE 660A**

CCGTTACGCGTTCGGTCCTCCTTGGCTGACTACCGCCCTCGCCGCCGACC**ATG**GACGCCCCAGGCAGGTGG  
TCAACTTTGGGCCTGGTCCCGCCAAGCTGCCGCACTCAGTGTTGTTAGAGATACAAAAGGAATTATTAGACTACA  
AAGGAGTTGGCATTAGTGTTCTTGAAATGAGTCACAGGTCATCAGATTTTGCCAAGATTATTAACAATACAGAGA  
ATCTTGTGCGGGAATTGCTAGCTGTTCCAGACAATAAAGGTGATTTTTCTGCAAGGAGGTGGGTGCGGCCAGT  
TCAGTGCTGTCCCCTTAAACCTCATTGGCTTGAAAGCAGGAAGGTGTGCTGACTATGTGGTGACAGGAGCTTGGT  
CAGCTAAGGCCGAGAAGAAGCCAAGAAGTTTGGGACTATAAATATCGTTCACCC**TAA**CTTGGGAGTTATACAA  
AAATTCAGATCCAAGCACCTGGAACCTCAACCCAGATGCCTCCTACGTGTATTATTGCGCAAATGAGACGGTGC  
ATGGTGTGGAGTTTGACTTTATACCCGATGTCAAGGGAGCAGTACTGGTTTGTGACATGTCCTCAAAC**TT**CTGT  
CCAAGCCAGTGGATGTTTCCAAGTTTGGTGTGATTTTTGCTGGTGCCAGAAGATGTTGGCTCTGCTGGGGTCA  
CCGTGGTGATTGTCCGTGATGACCTGCTGGGGTTTGCCTCCGAGAGTGCCCTCGGTCTTGGGAATACAAGGTGC  
AGGCTGGAAACAGCTCCTTGTACAACACGCCTCCATGTTT**CAG**CATCTACGT**CAT**GGGCTTGGTTCTGGAGTGGA  
TTAAAAACAATGGAGGTGCCGCGGCCATGGAGAAGCTTAGCTCCATCAAATCTCAAACAATTTATGAGATTATTG  
ATAATTCTCAAGGATTCTACGTTTGTCCAGTGGAGCCCCAAAATAGAAGCAAGATGAATATTCCATTCCGCATTG  
GCAATGCCAAAGGAGATGATGCTTTAGAAAAAGATTTCTTGATAAAGCTCTTGA**ACT**CAATATGTTGTCTTGA  
AAGGGCATAGGTCTGTGGGAGGCATCCGGGCCTCTCTGTATAATGCTGT**CACA**ATTGAAGACGTT**CAGA**AGCTGG  
CCGCC**TT**CATGAAAAATTTTTGGAGATGCATCAGCT**ATGA**ACACATCCTAACCAGGATATACTCTGTTCTTGA  
CAACATACAAAGTTTAAAGTAACTTGGGGATGGCTACAAAAAGTTAACACAGTATTTTTCTCAAATGAACATGTT  
TATTGCAGATTCTTCTTTTTTGAAAGAACACAGCAAAACATCCACA**ACT**CTGTAAAGCTGGTGGGACCTAATGT  
CACCTTAATTCTGACTTGA**ACT**GGAAGCATTTTAAGAAATCTTGTGCTTTTCTAA**CAA**ATTTCCCGCTATTTTG  
CCTTTGCTGCTACTTTTTCTAGTTAGATTTCAA**ACT**TGCCTGTGGACTTAATAATGCAAGTTGCGATTAATTATT  
TCTGGAGTCATGGGAACACACAGCACAGAGGGTAGGGGGCCCTCTAGGTGCTGAATCTACACATCTGTGGGGTC  
TCCTGGGTT**CAG**TGGCTGTTGATTCAAGGTCAACATTGACCATTGGAGGAGTGGTTTAAGAGTGCCAGGCGAAGG  
GCAA**ACT**GTAGATCGATCTTTATGCTGTTATTACAGGAGAAGTGACATACTTTATATATGTTTATATTAGCAAGG  
TCTGTTTTTAATACCATATACTTTATATTTCTATACATTTATATTTCTAATAATACAGTTATCACTGATATATGT  
AGACACTTTTAGAATTTATTAAATCCTTGACCTTGTGCATTATAGCATTCCATTAGCAAGAGTTGTACCCCTCC  
CCAGTCTTCGCCCTTCTCTTTTTAAGCTGTTTTATGAAAAAGACCTAGAAGTTCTTGATTCATTTTTACCATTCT  
TTCCATAGGTAGAAGAGAAAGTTGATTGGTTGGTTGTTTTTCAATTATGCCATTAA**ACT**AAACATTTCTGTTAA  
TTACCC**TAT**CCTTTGTTCTCTACTGTTTTCTTTGTAATGTATGACTACGAGAGTGATACTTTGCTGAAAAGTCTT  
TCCCCTATTGTTTATCTATTGTCAGTATTTTATGTTGAATATGTAAAGAACATTAAAGTCTTAAACACGGTTCTA  
AGCTAAGTGAAGGGGAAGATCTGAGAGCGTGCTGTTTGTGGCTGTTGATGCATATT**CGT**GATGTAACAGGTCTTG  
GGGCCTCACTTTACCC**CA**TTTGTAAATGGGGCTAATGTACCTGCCTCTTACCTACCTCAGAGGGATTTGGTGA  
AGCAA**ACT**GTTAATCTTCGAAAACGACCATTTCACTTCTTGGATATCAAGTGCTAACC**CAG**TATGTTCTTCTTTT  
TTATGTAAGGGACAGCTTTCTCCACAGAGTCCTTTCTGCTGGTGAGGACAGCATT**CT**GAGCAGGGCTTTGTTCT  
CTATGTGCATTAGGACTTTTATCATGCCC**TT**GTCTGTGTAGTTACTTGACAGCATCAAATGCCGCCTCTTCC  
TAATGTCTTCAAGTTTTCATGA**ACT**AGCAACCC**CA**CTTCCACCATGGTTCTGGGCGCCTGATTTTGCTGTGAC  
TCCAGACCCAGCCACTGTTTCTGCCACCCTGTAACAGGCCATTAAAGCTCC**CA**GTGTT**CAG**CTCCTTCACTC  
CCTTGTTTTCCCTGTTGCTATGTGTACCTGGGCCCTACAGACAGGGGCACACGCTTATGGATGTGTGTACCATT  
GAGATGAGAATGGGTAGATGGAACGGAGACCATCAAGCCACACCCCTCTTAA**AA**CTGGGGACATGAGCCTGAG  
CAGAAAGGGTGAAGAAGAGCCATGGGACACAGAGTTGACCCAGCCAGGGGAAAGCCAGCTCTCTTTAAACCAG  
CTAAGCCATTCCAGTCTCCTGTGAAGCCAAAAGGGACCAGGAACCGTGCAAAGGAACTGGAA**ACT**TTTTCCCGC  
TGGGTAGAGCATGTTGCTGATACTCTTCTGTTTTCAAGGGAAACAATC**CA**ATTGTTTGATTCAAATGGTAAATG  
AACTCACTATTCTT**CAG**GCTT**CAG**TAAATCTTTTTTCTTCTCCTCATATATATATACACAACACACACACA  
TATGTATATCTATACACATGTGTGTTGTGTATATGCATGTGTGTGTGCGTGTGTGTATAGTTTTAGCTCCA  
AGCCAAGCAAGTTTGTGTTTGGATAGAGGGGA**ACT**TAACTATTA**ACT**TACAAGTTGTATGTCTGTGGTATCTTGAT  
TTTCC**CA**TTTCTAAAGATGAATTTCA**AA**AGCCATAAAGCGTGAAATTAGAGCTGGACTTAAGACTCATTGGCCG  
ACCATCCTGTGTCTTGGCCTGGCCCTGCAGTAAGAAGCGTGTCTGGGTCTGGAGAAGGGTGTCTCCGAGAGTGTG  
CAGGTGGCCCTTCCCTTGGAGGCGAGAAGAGAGAATGTGCTGTCTATCTTCTGTTT**CAG**TCCACAGAGTCG  
GTAGACCAGGGGTTACGTGACTGGGGAAATCTC**AC**ATCTCCTTGTCTGAAAACATTTCCCTGCTGTTCTCTTT

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**FIGURE 660B**

CTAACATGTTGTGGTAAATCTGTTTCAGATACTGCTCATCTGACTGTTTTGTACATGTGACAATTGCCTTAAACC  
TAGCACAGTCCTCAGAAATGAATACCGTGTTTCCACTGGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 661**

MDAPRQVVNFGPGPAKLPHSVLLEIQKELLDYKGVGISVLEMSHRSSDFAKIINNNTENLVRELLAVPDNYKVIFL  
QGGGCGQFSAVPLNLIGLKAGRCADYVVTGAWSAKAAEEAKKFGTINIVHPKLGSYTKIPDPSTWNLNPDASYVY  
YCANETVHGVEFDFIPDVKGAVLVCDMSSNFLSKPVDVSKFGVIFAGAQKNVGSAGVTVVIVRDDLLGFALRECP  
SVLEYKVQAGNSSLYNTPPCFISIYVMGLVLEWIKNNGGAAAMEKLSSIKSQTIIYEIIDNSQGFYVCPVEPQNRSK  
MNIPFRIGNAKGDDALEKRFLDKALELNMLSLKGHRVSGGIRASLYNAVTIEDVQKLAAFMKKFLEMHQL

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**FIGURE 662**

ACTTTCCTGCCCTTCCCCGGCCAAGCCCAACTCCGGATCTCGCTCTCCACCGGATCTCACCCGCCACACCCGGA  
CAGGCGGCTGGAGGAGGCGGGCGTCTAAAATTCTGGGAAGCAGAACCTGGCCGGAGCCACTAGACAGAGCCGGGC  
CTAGCCAGAGACATGGAGAGTTGCTACAACCCAGGTCTGGATGGTATTATTGAATATGATGATTTCAAATTGAA  
CTCCTCCATTGTGGAACCCAAGGAGCCAGCCCCAGAAACAGCTGATGGCCCCCTACCTGGTGATCGTGGAACAGCC  
TAAGCAGAGAGGCTTCCGATTTTCGATATGGCTGTGAAGGCCCTCCCATGGAGGACTGCCCGGTGCCTCCAGTGA  
GAAGGGCCGAAAGACCTATCCCACTGTCAAGATCTGTAACCTACGAGGGACCAGCCAAGATCGAGGTGGACCTGGT  
AACACACAGTGACCCACCTCGTGCTCATGCCACAGTCTGGTGGGCAAGCAATGCTCGGAGCTGGGGATCTGCGC  
CGTTTCTGTGGGGCCCAAGGACATGACTGCCCAATTTAAACACCTGGGTGTCCTGCATGTGACTAAGAAGAACAT  
GATGGGGACTATGATACAAAACCTTCAGAGGCAGCGGCTCCGCTCTAGGCCCCAGGGCCTTACGGAGGCCGAGCA  
GCGGGAGCTGGAGCAAGAGGCCAAAGAACTGAAGAAGGTGATGGATCTGAGTATAGTGC GGCTGCGCTTCTCTGC  
CTTCCTTAGAGCCAGTGATGGCTCCTTCTCCCTGCCCTGAAGCCAGTCACCTCCCAGCCCATCCATGATAGCAA  
ATCTCCGGGGGCATCAAACCTGAAGATTTCTCGAATGGACAAGACAGCAGGCTCTGTGCGGGGTGGAGATGAAGT  
TTATCTGCTTTGTGACAAGGTGCAGAAAGATGACATTGAGGTTTCGGTTCATGAGGATGATGAGAATGGATGGCA  
GGCCTTTGGGGACTTCTCTCCACAGATGTGCATAAACAGTATGCCATTGTGTTCCGGACACCCCCCTATCACAA  
GATGAAGATTGAGCGGCCTGTAACAGTGTTTTCTGCAACTGAAACGCAAGCGAGGAGGGGACGTGTCTGATTCCAA  
ACAGTTACCTATTACCCTCTGGTGGAAGACAAGGAAGAGGTGCAGCGGAAGCGGAGGAAGGCCTTGCCCCACCTT  
CTCCCAGCCCCCTCGGGGGTGGCTCCACATGGGTGGAGGCTCTGGGGGTGCAGCCGGGGGGCTACGGAGGAGCTGG  
AGGAGGTGGCAGCCTCGGTTTTCTTCCCCTCCTCCCTGGCCTACAGCCCCCTACCAGTCCGGCGCGGGCCCCATGCG  
GTGCTACCCGGGAGGCGGGGGCGGGGCGCAGATGGCCGCCACGGTGCCAGCAGGGACTCCGGGGAGGAAGCCGC  
GGAGCCGAGCGCCCCCTCCAGGACCCCCCAGTGCGAGCCGCAGGCCCGGAGATGCTGCAGCGAGCTCGAGAGTA  
CAACGCGCGCCTGTTTCGGCCTGGCGCACGCAGCCCCGAGCCCTACTCGACTACTGCGTACCCGCGGACGCCGCGC  
GCTGCTGGCGGGACAGCGCCACCTGCTGACGGCGCAGGACGAGAACGGAGACACACCACTGCACCTAGCCATCAT  
CCACGGGCAGACCAGTGTCATTGAGCAGATAGTCTATGTCTATCCACCACGCCCAGGACCTCGGCCTTGTCACCT  
CACCAACCACCTGCACCAGACGCCCTGCACCTGGCGGTGATCACGGGGCAGACGAGTGTGGTGAGCTTTCTGCT  
GCGGGTAGGTGCAGACCCAGCTCTGCTGGATCGGCATGGAGACTCAGCCATGCATCTGGCGCTGCGGGCAGGCGC  
TGGTGCTCCTGAGCTGCTGCGTGCACTGCTTCAGAGTGAGGCTCCTGCTGTGCCCCAGCTGTTGCATATGCCTGA  
CTTTGAGGGACTGTATCCAGTACACCTGGCGGTCCGAGCCCCGAAGCCCTGAGTGCTTGATCTGCTGGTGGACAG  
TGGGGCTGAAGTGAGGCCACAGAGCGGCAGGGGGGACGAACAGCCTTGCACTCTAGCCACAGAGATGGAGGAGCT  
GGGGTTGGTCACCCATCTGGTCACCAAGCTCCGGGGCCAACGTGAACGCTCGCACCTTTGCGGGAAACACACCCCT  
GCACCTGGCAGCTGGACTGGGGTACCCGACCCTCACCCGCCCTCCTTCTGAAGGCTGGTGCTGACATCCATGCTGA  
AAACGAGGAGCCCCCTGTGCCCACTGCCTTCACCCCCCTACCTCTGATAGCGACTCGGACTCTGAAGGGCCTGAGAA  
GGACACCCGAAGCAGCTTCCGGGGCCACACGCCTCTTGACCTCACTTGACAGCACCTTGGTGAAGACCTTGCTGCT  
AAATGCTGCTCAGAACACCATGGAGCCACCCCTGACCCCCGCCAGCCAGCAGGGCCGGGACTGTCACTTGGTGA  
TACAGCTCTGCAGAACCTGGAGCAGCTGCTAGACGGGGCCAGAAGCCAGGGCAGCTGGGCAGAGCTGGCAGAGCG  
TCTGGGGCTGCGCAGCCTGGTAGACACGTACCGACAGACAACCTCACCCAGTGGCAGCCTCCTGCGCAGCTACGA  
GCTGGCTGGCGGGGACCTGGCAGGTCTACTGGAGGCCCTGTCTGACATGGGCCTAGAGGAGGGAGTGAGGCTGCT  
GAGGGGTCCAGAAACCCGAGACAAGCTGCCCAGCACAGAGGTGAAGGAAGACAGTGC GTACGGGAGCCAGTCAGT  
GGAGCAGGAGGCAGAGAAGCTGGGCCCACCCCTGAGCCACCAGGAGGGCTCTCGCACGGGCACCCCCAGCCTCA  
GGTGA CTGACCTGCTGCCCTGCCCCAGCCCCCTTCCCGGACCCCTGTACAGCGTCCCCACCTATTTCAAATCTT  
ATTTAACACCCACACCCACCCCTCAGTTGGGACAAATTAAAGGATTCTCATGGGAAGGGGAGGACCCCGAATTCC

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**FIGURE 663**

MESCYNPGLDGIIEYDDFKLNSSIVEPKEPAPETADGPYLVIVEQPKQRFREFRYGCEGPSHGGLPGASSEKGRK  
TYPTVKICNYEGPAKIEVDLVTHSDPPRAHAHSLVGKQCSELGICAVSVGPKDMTAQFNNLGVLVHTKKNMMGMT  
IQKLQRQRLRSRPQGLTEAEQRELEQEAKELKKVMDLSIVRLRFSAFLRASDGSFSLPLKPVTSQPIHDSKSPGA  
SNLKISRMDKTAGSVRGDEVYLLCDKVQKDDIEVRFYEDDENGWQAFGDFSPTDVHKQYAIVFRTPPYHKMKIE  
RPVTVFLQLKRKRGGDVSDSKQFTYYPLVEDKEEVQRKRRKALPTFSQPFGGGSHMGGGSGGAAGGYGGAGGGGS  
LGFFPSSLAYSPIYQSGAGPMRCYPGGGGGAQMAATVPSRDSGEEAAEPSAPSRTPOCEPQAPEMPLQRAREYNARL  
FGLAHAAPSPTRLLRHRGRRALLAGQRHLLTAQDENGDTPLHLAI IHGQTSVIEQIVYVIHHAQDLGVVNLTNHL  
HQTPLHLAVITGQTSVVSFLLRVGADPALLDRHGDSAMHLALRAGAGAPELLRALLQSGAPAVPQLLHMPDFEGL  
YPVHLAVRARSPECDLLVDSGAEVEATERQGGRTALHLATEMEELGLVTHLVTKLRANVNARTFAGNTPLHLAA  
GLGYPTLTRLLLKAGADIHAENEEPLCPLPSPPTSDSDSDSEGPEKDTRSSFRGHTPLDLTCSTLVKTLNNAQ  
NTMEPPLTPPSPAGPGLSLGDTALQNLQLLDGPEAQGSWAELAERLGLRSLVDTYRQTTSPSGSLLRSYELAGG  
DLAGLLEALSDMGLEEGVRLLRGPETRDKLPSTEVKEDSAYGSQSVEQEAELGPPPEPPGGLSHGHPQPQVTDL  
LPAPSPLPGPPVQRPHLFQILFNTPHPLSWDK

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**FIGURE 664**

TTCTAGTTTTCGGGTTTCAGGTTTGCCGCTGCCGGCCAGCGTCCTCTGGCC**ATG**GACACCCCGGAAATGTCCTTCA  
GATGCTTGAAGCCCATGCAGAGCTACAAGGGCAATGACCTCTTGGTGAATGGGAAAGATACATACAGTGGGT  
AGAAGAGAATTTTCTGAGAATAAAGAATACTTGATAACTTTACTAGAACATTTAATGAAGGAATTTTATGATAA  
GAAGAAATACCACAATGACCCAAGATTCATCAGTTATTGTTTAAATTTGCTGAGTACAACAGTGACCTCCATCA  
ATTTTTGAGTTTCTGTACAACCATGGGATTGGAACCTGTCTATCCCTCTGTACATTGCCTGGGCGGGGCATCT  
GGAAGCCCAAGGAGAGCTGCAGCATGCCAGTGCTGTCTTCAGAGAGGAATTCAAAACAGGCTGAACCCAGAGA  
GTTCTTGCAACAACAATACAGGTTATTTAGACACGCCTCACTGAAACCCATTTGCCAGCTCAAGCTAGAACCTC  
AGAACCTCTGCATAATGTTTCAGGTTTAAATCAAATGATAACATCAAAATCAAATCCAGGAAATAACATGGCCTG  
CATTTCTAAGAATCAGGGTTTCAGAGCTTTCTGGAGTGATATCTTCAGCTTGATGATAAAGAGTCAAATATGGAACG  
AAGAGTGATCACGATTTCTAAATCAGAATATTCTGTGCACTCATCTTTGGCATCCAAAGTTGATGTTGAGCAGGT  
TGTTATGTATTGCAAGGAGAAGCTTATTCGTGGGGAATCAGAATTTTCCTTTGAAGAATTGAGAGCCCAGAAATA  
CAATCAACGGAGAAAGCATGAGCAATGGGTAAATGAAGACAGACATTATATGAAAAGGAAAGAAGCAAATGCTTT  
TGAAGAACAGCTATTTAAACAGAAAATGGATGAACTTCATAAGAGTTGCATCAGGTGGTGGAGACATCCCATGA  
GGATCTGCCCCGCTTCCCAGGAAAGGTCCGAGGTTAATCCAGCACGTATGGGGCCAAGTGTAGGCTCCCAGCAGGA  
ACTGAGAGCGCCATGTCTTCCAGTAACCTATCAGCAGACACCAGTGAACATGGAAAAGAACCCAAGAGAGGCACC  
TCCTGTTGTTCTCTCTTTGGCAAATGCTATTTCTGCAGCTTTGGTGTCCCCAGCCACCAGCCAGAGCATTGCTCC  
TCCTGTTCTCTTTGAAAGCCAGACAGTAACAGACTCCATGTTTGCAGTGGCCAGCAAAGATGCTGGATGTGTGAA  
TAAGAGTACTCATGAATTCAAGCCACAGAGTGGAGCAGAGATCAAAGAAGGGTGTGAAACACATAAGGTTGCCAA  
CACAAGTTCTTTTACACAACCTCAAACACATCACTGGGAATGGTTCAGGCAACGCCATCCAAAGTGCAGCCATC  
ACCCACCGTGCACACAAAAGAAGCATTAGGTTTCATCATGAATATGTTTCAGGCTCCTACACTTCTGATATTTT  
TGATGACAAAGATGAATGGCAATCTCTAGATCAAATGAAGATGCATTTGAAGCCAGTTTCAAAAAAATGTAAG  
GTCATCTGGGGCTTGGGGAGTCAATAAGATCATCTCTCTTTGTCATCTGCTTTTCATGTGTTTGAAGATGGAAA  
CAAAGAAAATTATGGATTACCACAGCCTAAAAATAAACCCACAGGAGCCAGGACCTTTGGAGAACGCTCTGTGAG  
CAGACTTCCTTCAAACCAAAGGAGGAAGTGCCTCATGCTGAAGAGTTTTTGGATGACTCAACTGTATGGGGTAT  
TCGCTGCAACAAAACCTGGCACCCAGTCTTAAGAGCCCAGGAGACTTCACATCTGCTGCACAACCTGCGTCTAC  
ACCATTCCACAAGCTTCCAGTGGAGTCAGTGCACATTTTAGAAGATAAAGAAAATGTGGTAGCAAAACAGTGTAC  
CCAGGCGACTTTGGATTCTTGTGAGGAAAACATGGTGGTGCCTTCAAGGGATGGAAAATTCAGTCCAATTCAAGA  
GAAAAGCCCCAAAACAGGCCTTGTCTCTCACATGTATTTCAGCATCCTTACTTCTGCTGAGCCAGCCTGCTGCAGG  
TGGGGTACTTACCTGTGAGGCAGAGTTGGGCGTTGAGGCTTGCAGACTCACAGACACTGACGCTGCCATTGCAGA  
AGATCCACCAGATGCTATTGCTGGGCTCCAAGCAGAATGGATGCAGATGAGTTCACTTGGGACTGTTGATGCTCC  
AACTTCATTGTTGGGAACCCATGGGATGATAAGCTGATTTTCAAACTTTTATCTGGGCTTTCTAAACCAGTGAG  
TTCTATCCAAATACTTTTGAATGGCAATGTAACTTCCAGCCATCAAGCCCAAGACTGAATTTCAATTGGGTTC  
TAAGCTGGTCTATGTCCATCACCTTCTTGGAGAAGGAGCCTTTGCCAGGTGTACGAAGCTACCCAGGGAGATCT  
GAATGATGCTAAAAATAAACAGAAATTTGTTTTAAAGGTCCAAAAGCCTGCCAACCCCTGGGAATTCTACATTGG  
GACCCAGTTGATGGAAAGACTAAAGCCATCTATGCAGCACATGTTTATGAAGTTCTATTCTGCCCACTTATTCCA  
GAATGGCAGTGATTAGTAGGAGAGCTCTACAGCTATGGAACATTATTAAATGCCATTAACTCTATAAAAAATAC  
CCCTGAAAAAGTGATGCCTCAAGGTCTTGTCTCTCTTTTGCTATGAGAATGCTTTACATGATTGAGCAAGTGCA  
TGACTGTGAAATCATTATGGAGACATTAAACCAGACAATTTCACTTGGAAACGGATTTTGGAAACAGGATGA  
TGAAGATGATTTATCTGCTGGCTTGGCACTGATTGACCTGGGTGAGATATAGATATGAACTTTTTCCAAAAGG  
AACTATATTACAGCAAAGTGTGAAACATCTGGTTTTTCAGTGTGTTGAGATGCTCAGCAACAAACCATGGAAC  
CCAGATCGATTACTTTGGGGTTGCTGCAACAGTATATTGCATGCTCTTTGGCACTTACATGAAAGTGAAAAATGA  
AGGAGGAGAGTGTAAGCCTGAAGGTCTTTTTAGAAAGGCTTCCTCATTTGGATATGTGGAATGAATTTTTTCATGT  
TATGTTGAATATTCCAGATTGTCATCATCTTCCATCTTTGGATTTGTTAAGGCAAAGCTGAAGAAAGTATTTCA  
ACAACACTATACTAACAAGATTAGGGCCCTACGTAATAGGCTAATTGTAAGTGTCTTTAGAATGTAAGCGTTACAG  
AAAA**TAAA**ATTTGGATATAGACAGTCTTAAAAATCACACTGTAAATATGAATCTGCTCACTTTAAACCTGTTTT  
TTTTTCATTTATTGTTTATGTAAATGTTTGTAAAAATAAATCCCATGGAATATTTCCATGTAAAAA

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**FIGURE 665**

MDTPENVLQMLEAHMQSYKGNDPLGEWERYIQWVEENFPENKEYLITLLEHLMKEFLDKKKYHNDPRFISYCLKF  
AEYNSDLHQFFEFLYNHGIGTLSSPLYIAWAGHLEAQGELQHASAVLQRGIONQAEPREFLOQQYRLFQTRLTET  
HLPARTSEPLHNVQVLNQMITSKSNPGNNMACISKNQGSSELSGVISSACDKESNMERRVITISKSEYSVHSSL  
ASKVDVEQVVMYCKEKLIRGESEFSFEELRAQKYNQRRKHEQWVNEDRHYMKRKEANAFEEQLLKQKMDDELHKKL  
HQVVETSHEDLPASQERSEVNPARMGPSVGSQQELRAPCLPVTYQQTVPNMEKNPREAPPVVPPLANAISSAALVS  
PATSQSIAPPVPLKAQTVTDSMFAVASKDAGCVNKSTHEFKPQSGAEIKEGCETHKVANTSSFHHTPNTSLGMVQ  
ATPSKVQPSPTVHTKEALGFIMNMFQAPTLDPDISDDKDEWQSLDQNEFAEQFQKNVRSSGAWGVNKIISLSS  
AFHVFEDGNKENYGLPQPKNPTGARTFGERSVSRLPSPKKEEVPAAEEFLDDSTVWGIRCNKTLAPSPKSPGDF  
TSAAQLASTPFHKLPPVESVHILEDKENVAKQCTQATLDSCEENMVVPSRDGKFSPIQEKSPKQALSSHMYASL  
LRLSQPAAGGVLTC EAELGVEACRLTD TDA AIAEDPPDAIAGLQA EWMQMSSLGTVDAPNFIVGNPWDDKLIFKL  
LSGLSKPVSSYPNTFEWQCKLPAIKPKTEFQLGSKLVYVHLLGEGAF AQVYEATQGD LND AKNKQKFVLKVQKP  
ANPWEFYIGTQLMERLKPSMQHMFMYSAHLFQNGSVLVGELYSGTLLNAINLYKNTPEKVPQGLVISFAMR  
MLYMIEQVHDCEIIHGDIKPDNFI LGNGFLEQDDEDDLSAGLALIDLQSIDMKLFPKGTIFTAKCETSGFQCVE  
MLSNKPWNYQIDYFGVAATVYCMLFGTYMKVKNEGGECKPEGLFRRLPHLDMWNEFFHVMLNIPDCHHLPSDLL  
RQKLKKVFQQHYTNKIRALRNRLIVLLECKRSRK

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**FIGURE 666**

GCGCAGAAGCGGCGGCGGTGGTGGCTTGTGGTGCGGCCTCACCATAACAGGAACAGGGCAGACGTTAGCGTGAGTG  
ATCACTCTCAATCCCGGGGACCTGGTGGCCTTAGTCTTTCAGGTGGAACGGTGTGCGAC**ATGGGAAAGAAAACCA**  
AGCGGACAGCTGACAGTTCTTCTTCAGAGGATGAGGAGGAGTATGTTGTGGAGAAGGTGCTAGACAGGCGCGTGG  
TTAAGGGACAAGTGGAATATCTACTGAAGTGAAAGGCTTTTCTGAGGAGCACAACTTGGGAACCTGAGAAAA  
ACTTGGATTGCCCTGAGCTAATTTCTGAATTTATGAAAAAGTATAAGAAGATGAAGGAGGGTGAAAATAATAAAC  
CCAGGGAGAAGTCAGAAAGTAACAAGAGGAAATCCAATTTCTCAAACAGTGCCGATGACATCAAATCTAAAAAAA  
AGAGAGAGCAGAGCAATGATATCGCTCGGGGCTTTGAGAGAGGACTGGAACCAGAAAAGATCATTGGGGCAACAG  
ATTCTGTGGTGATTTAATGTTTCCTAATGAAATGGAAAGACACAGATGAAGCTGACCTGGTTCTTGCAAAGAAG  
CTAATGTGAAATGTCCACAAATTGTGATAGCATTTTATGAAGAGAGACTGACATGGCATGCATATCCTGAGGATG  
CGGAAAACAAAGAGAAAGAAACAGCAAAGAGCT**TAA**AGGAGGGGATGGTCTCTGTCATTTCTCTTTGTACATAATA  
CATTACCTCCCTGCCTCCTCTCCTTTCTACCCACCCCTTTCTATCCTAAACACATCCATAAAAAATGTGCTTAT  
CACTGTGCTCCACAAA



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**FIGURE 667**

MGKKTkRTADSSSSSEDEEEYVVEKVLDRRVVKQVEYLLKWKGFSEEHNTWEPEKNLDCPELISEFMKKYKKMKE  
GENNKPREKSESNKRKSNFSNSADDIKSKKKREQSNDIARGFERGLEPEKIIIGATDSCGDLMLMKWKDTDEADL  
VLAKEANVKCPQIVIAFYERLTWHAYPEDAENKEKETAKS

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**FIGURE 668**

CTGAAGCTTGCATGCCTGCAGGTCGACCCACGCGTCCGCGGACGCGTGGGCGGACGCGTGGGTTTTTCCTTTCTT  
CCAGAAAGGAGATTTAACCATAGTAGAAAAGAATGGAGAACTATTAAGTGCCTTCCTTCTGTGGGCTGTGATTTTCA  
GAGGGGAATGCTAAGAGGTGATTTTCAATGTTGGGACTCAAAGGTGAAGACACTGAAGGACAGAATTTTGGCAG  
AGGAAAGATCTTCTTCGGTACCATACTTGAGTTAGCTCTAGGGAAGTGGAGTTTCCATTTGGAATTCTATAGC  
TTCTTCCAGGTCATAGTGTCTGCCCCACCTTCCAGTATCTCCTGATATGCAGCATGAATGAAAATGGCAAGTT  
TCCTGGCCTTCCTTCTGCTCAACTTTTCGTGTCTGCCTCCTTTTGCTTCAGCTGCTCATGCCTCACTCAGCTCAGT  
TTTCTGTGCTTGGACCCTCTGGGCCCATCCTGGCCATGGTGGGTGAAGACGCTGATCTGCCCTGTACCTGTTCC  
CGACCATGAGTGCAGAGACCATGGAGCTGAAGTGGGTGAGTTCCAGCCTAAGGCAGGTGGTGAACGTGTATGCAG  
ATGGAAGGAAGTGGAAGACAGGCAGAGTGCACCGTATCGAGGGAGAACTTCGATTCTGCGGGATGGCATCACTG  
CAGGGAAGGCTGCTCTCCGAATACACAACGTACAGCCTCTGACAGTGGAAAGTACTTGTGTTATTTCCAAGATG  
GTGACTTCTATGAAAAAGCCCTGGTGGAGCTGAAGGTTGCAGCACTGGGTTCTGATCTTCAGTTGATGTGAAGG  
GTTACAAGGATGGAGGGATCCATCTGGAGTGCAGGTCCACTGGCTGGTACCCCCAACCCCAAATACAGTGGAGCA  
ACAACAAGGGAGAGAACATCCCGACTGTGGAAGCACCTGTGGTTGCAGACGGAGTGGGCCTGTATGCAGTAGCAG  
CATCTGTGATCATGAGAGGCAGCTCTGGGGAGGGTGTATCCTGTACCATCAGAAGTTCCCTCCTCGGCCTGGAAA  
AGACAGCCAGCATTTCCATCGCAGACCCCTTCTTCAGGAGCGCCAGAGGTGGATCGCCGCCCTGGCACGGACCC  
TGCCTGTCTTGCTGCTGCTTCTTGGGGGAGCCGGTTACTTCTGTGGCAACAGCAGGAGGAAAAAAGACTCAGT  
TCAGAAAGAAAAAGAGAGAGCAAGAGTTGAGAGAAATGGCATGGAGCACAATGAAGCAAGAACAAGCACAAAGAG  
TGAAGCTCCTGGAGGAACCTCAGATGGAGAAGTATCCAGTATGCATCTCGGGGAGAGAGACATTACGCCATATAATG  
AATGGAAGAAAGCCCTCTTCAAGCCTGCGGATGTGATTCTGGATCCAAAAACAGCAAACCCCATCTCCTTGTTT  
CTGAGGACCAGAGGAGTGTGCAGCGTGCCAAGGAGCCCCAGGATCTGCCAGACAACCTGAGAGATTTAATTGGC  
ATTATTGTGTTCTCGGCTGTGAGAGCTTCATATCAGGGAGACATTACTGGGAGGTGGAGGTAGGGGACAGGAAAG  
AGTGGCATATAGGGGTGTGCAGTAAGAATGTGCAGAGAAAAGGCTGGGTCAAATGACACCTGAGAATGGATTCT  
GGACTATGGGGCTGACTGATGGGAATAAGTATCGGACTCTAACTGAGCCCAGAACCAACCTGAAACTTCCTAAGC  
CCCCTAAGAAAGTGGGGGTCTTCTTGGACTATGAGACTGGAGATATCTCATTCTACAATGCTGTGGATGGATCGC  
ATATTCACTTTTCTGGACGCTCTCTTCTCTGAGGCTCTATATCCTGTTTTTCAGAAATTTTGACCTTGGAGCCCCA  
CGGCCCTGAGTATTTGTCCAGCGTGAAGAAGAAGAGAGTTTCTCCAATTCTGACCGAGTGTGATCATTCCCT  
AGAGACACCAGTAACCCCCGGGCTTAGCTAACGAAAGTGGGGAGCCTCAGGCTGAAGTAACCTTTTCTCTGCTTCTC  
CCTGCCCAGCTCAGAGCTGAGGGCCTCCCCCTCCACAGCAACCAATCACAACCATAAAGCTACAAGCACGCACTG  
AAGCACTTTACTGATACTCATTCAATTATTATCATATGACAGTTGTTTGGAGTTTGGTACCATCTTATTTTCCCTTA  
TACAGATAAGGAACTGGGGTGCAGAAAAGTGAATTGACTACAAAAGTAGACATGACTAGTTAACAACACAGCTGG  
GATCTAAACAGCAATAACTAATTAATGGAGAACTTAAATGCTCTGAGTGTGTTATGAGCTTTGGTGGAT  
GTCACTCCTTTAATCCTCGCAACACCCTGTGCGGTAGTCTCATTAGCAAGTATGGAAGTTGAGGCAGGGCAACA  
TTAAGCAACTTACATAACTCATGCAGTAATTTCTGCAGTTGGGAGATGTTTCAGCTTCAGTCCCCGGCCCTATGGC  
CGTTCTTTTCCACCCTGTTTCTTCCCCCATAGGAAGAACCACCTGTAGCCCTGAGGTTCTTTTCCAGGATGGC  
TCCAGGATAAGGATCACTGTAGGTGGTTGTGGAGTTGACACCCCTGTTGACTCCTTCCAGCTGATTGTCAGAGC  
CTTAGACCCAGCACGCCTTGGATTAGCTTTGCAGAGTGTCTTGGTTGAGAGAATAACCTCACCGTACCCACATGA  
CACGTGATTTGGAAGAGACTAGAGGCCACACTTGATAAATCATGGGGAACAGATGTGTTCCACCCAACAAATGT  
GATAAGTGATCATGCAGCCAGAGCCAGCCTTCTTCAATCAAGGTTTCCAGGCAGAGCAAATACCCTAGAGATTT  
TCTGTGATATAGGAAATTTGGATGAAGGGAGCTAGAAGAAATACAGGGATTTTTTTTTTTTTTAAAGATGGAGTC  
TTACTCTGTTGCTAGGCTGGAGTGCAGTGGTGCATCTCAGCTCCCTGCAACCTCCACCTCCTGGGTTCAAACAA  
TTCTCCTGCCTCAGCCTCCCGAGTACTGGGAATATAGGTGCACGCCACCACACCAACAAATTTTGTACTTTTA  
GTACAGATGAGGGTTCACTATGTTGGCCAGGATGGTCTCGATCTCTTGACCTCATGATCCACCCACCTCGGTCTC  
CCAAAGTGCTGGGATTACAGGCTTGAGCCACCGGTGACCGGCTTACAGGGATATTTTAAATCCCGTTATGGACT  
CTGTCTCCAGGAGAGGGGTCTATCCACCCCTGCTCATTGGTGGATGTTAAACCAATATTCCTTTCAACTGCTGCC  
TGCTAGGGAAAAACTACTCCTCATTATCATCATTATTATTGCTCTCCACTGTATCCCCCTTACCTGGCATGTGCT  
TGTCAAGTTCTAGTTGTTCAATAAATTTGTTAATAATGCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AA

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**FIGURE 669**

MKMASFLAFLLLNFRVCLLLLQLLMPHSAQFSVLGPGPILAMVGEDADLPCHLFPTMSAETMELKWVSSSLRQV  
VNVYADGKEVEDRQSAPYRGRTSILRDGITAGKAALRIHNVTASDSGKYLCYFQDGFYEKALVELKVAALGSDL  
HVDVKGKDGGIHLECRSTGWYPQPQIQWSNNKGENIPTVEAPVVADGVGLYAVAASVIMRGSSGEGVSTIRSS  
LLGLEKTASISIAADPFFRSAQRWIAALARTLPVLLLLLGGAGYFLWQQQEEKKTQFRKKKREQELREMAWSTMKQ  
EQSTRVKLLEELRWRSIQYASRGERHSAYNEWKKALFKPADVILDPKTANPILLVSEDQRSVQRAKEPQDLDPNP  
ERFNWHYCVLGCEFSISGRHYWEVEVGDRKEWHIGVCSKNVQRKGWVKMTPENGFWTMGLTDGNKYRTLTEPRTN  
LKLKPPKKVGVFLDYETGDISFYNAVVGSHIHTFLDVFSSEALYPVFRILTLEPTALSICPA

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**FIGURE 670**

CAAATCCGTGCTCCTAGATTTGCAGGTTCTGATACTGTGGTTTCGAGCTACACTCGCCGCCTGGGCAGACACTCGT  
CCAAACCACTGGAGTGTGCTGGTGATCGCAGCCAGCCCTTCGCCTCTCCATGAACCCGTGAGCCTGGGGCAGGTG  
CCAGGCGATGCGCGGCCCTGTGAGCGACAGGACCCCGCCCCCTCTGCTGCTGGGCGGCCCGGCCGGACACCCCC  
TGGCGGGGAGCGCTGCTTGGGTTGCGGAGCCTTCTGCAGGGGACCAGCAAGCCCAAAGAGCCGGCCAGCTGTCT  
CCTGAAGGAAAAGGAGCGCAAGGCGGCCCTGCCTGCAGCCACAACCCCTGGGCCAGGCCTGGAGACTGCGGGCCC  
GGCGGATGCCCCGGCTGGGGCAGTGGTGGGCGGAGGGTCCCCGCGGGGGCGCCCGGGGGCCGGTGCCCGCCCCGGG  
TCTGTTGGCGCCACTGCTGTGGGAGCGCACGCTGCCGTTTCGGCGATGTGGAGTACGTAGACCTGGACGCCTTCCT  
GCTGGAGCACGGGCTCCCGCCAGCCCGCCGCCCCCGGTGGCCCCGTCGCCGAGCCGTCGCCCGCGCGGACGCC  
CGCACCCCTCCCCAGGGCCGGGTTCTGTGCGGCTCGGCTTCCCCCGCTCCTCTCCTGGGCACGCCCCCGCCGGG  
TGCCCTCGGGACCGCCACGGGCCACCGCGCAGGCCTGACCTCTCGGGACACACCCAGCCCTGTGGACCCAGACAC  
CGTGGAGGTGTTGATGACCTTTGAACCCGACCCAGCTGATCTTGCCCTATCAAGCATTCTGGCCACGAGACCTT  
TGACCCCTCGAAGACATCGCTTCTCAGAAGAGGAACTTAAGCCCCAGCCAATCATGAAGAAGGCAAGAAAAATCCA  
GGTGCCGGAGGAGCAGAAGGATGAGAAATACTGGAGCCGGCGGTACAAGAACAACGAGGCAGCCAAGCGGTCCCG  
TGACGCCCCGGCGGCTCAAGGAGAACCAGATATCGGTGCGGGCGGCCTTCCTGGAGAAGGAGAACGCCCTGCTGCG  
GCAGGAAGTTGTGGCCGTGCGCCAGGAGCTGTCCCACTACCGCGCCGTGCTGTCCCGATACCAGGCCACGACGG  
GGCCCTGTGAGGCTGCCCCACATCCCCACCTGGCAGGCGTCTCCTCCGCTTGCTGAGACTTACGCCCTGTTCCCT  
TCCTGCCCTGTGCCACGGGCCGGCCAGCTGGGTGCCCCAGGGACGTGATAATGCAGATAAATACATTTATATTT  
TTAAGAAAAAGCGAGCCTCCCCCTCTTGCGGGGGCGGGGAGGGTTCTCTGTGTGTCCCGGCACGTCAGGGACC  
CTATCCTCCCACCGCCTCCGTTAACACGATCCTGAATAAATCTTGAGAACCCC

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**FIGURE 671**

MARPVSDRTPAPLLLGGPAGTPPGGGALLGLRSLLQGTSKPKEPASCLLKEKERKAALPAATTPGPGLETAGPAD  
APAGAVVGGGSPRGRPGVPAPGLLAPLLWERTLPFGDVEYVDLDAFLLEHGLPPSPPPPGGPSPEPSPARTPAP  
SPGPGSCGSASPRSSPGHAPARAALGTATGHRAGLTSRDTPSPVDPDTVEVLMTFEPDPADLALSSIPGHETFDP  
RRHRFSEEELKPQPIIMKKARKIQVP EEQKDEKYWSRRYKNNEAAKRSRDARRLKENQISVRAAFLEKENALLRQE  
VVAVRQELSHYRAVLSRYQAQHGAL

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**FIGURE 672**

AGACTCAACAAGAGCTCCAGCAAAGACTTTCACTGTAGCTTGACTTGACCTGAGATTAACTAGGGAATCTTGAGA  
ATAAAGATGAGCTCTGAAAATTGTTTCGTAGCAGAGAACAGCTCTTTGCATCCGGAGAGTGGACAAGAAAATGAT  
GCCACCAGTCCCCATTTCTCAACACGTCATGAAGGGTCCTTCCAAGTTCCTGTCCTGTGTGCTGTAATGAATGTG  
GTCTTCATCACCATTTTAAATCATAGCTCTCATTGCCTTATCAGTGGGCCAATACAATTGTCCAGGCCAATACACA  
TTCTCAATGCCATCAGACAGCCATGTTTCTTCATGCTCTGAGGACTGGGTTGGCTACCAGAGGAAATGCTACTTT  
ATTTCTACTGTGAAGAGGAGCTGGACTTCAGCCCAAAATGCTTGTTCTGAACATGGTGCTACTCTTGCTGTCATT  
GATTCTGAAAAGGACATGAACTTTCTAAAACGATACGCAGGTAGAGAGGAACACTGGGTTGGACTGAAAAAGGAA  
CCTGGTCACCCATGGAAGTGGTCAAATGGCAAAGAATTTAACAACCTGGTTCAACGTTACAGGGTCTGACAAGTGT  
GTTTTTCTGAAAAACACAGAGGTCAGCAGCATGGAATGTGAGAAGAATTTATACTGGATATGTAACAAACCTTAC  
AAATAAAGGAAACATGTTCACTTATTGACTATTATAGAATGGAACCTCAAGGAAATCTGTGTCAGTGGATGCTG  
CTCTGTGGTCCGAAGTCTTCCATAGAGACTTTGTGAAAAAAATTTTATAGTGTCTTGGAATTTTCTTCCAAC  
AGAACTATGGAAAAAAGGAAGAAATTCAGGAAAATCTGCACTGTGGGCTTTTATTGCCATGAGCTAGAAGCAT  
CACAGGTTGACCAATAACCATGCCCAAGAATGAGAAGAATGACTATGCAACCTTTGGATGCACTTTATATTATTT  
TGAATCCAGAAATAATGAAATAACTAGGCGTGGACTTACTATTTATTGCTGAATGACTACCAACAGTGAGAGCCC  
TTCATGCATTTGCACTACTGGAAGGAGTTAGATGTTGGTACTAGATACTGAATGTAAACAAAGGAATTATGGCTG  
GTAACATAGGTTTTTGTCTAATTGAATCCCTTAACTCAGGGAGCATTATATAAATGGACAAATGCTTATGAAAC  
TAAGATTTGTAATATTTCTCTCTTTTTAGAGAAATTTGCCAATTTACTTTGTTATTTTTCCCCAAAAAGAAATGGG  
ATGATCGTGATTTATTTTTTTTACTTCCTCAGCTGTAGACAGGTCCTTTTCGATGGTACATATTTCTTTGCCTTT  
ATAATCTTTTATACAGTGTCTTACAGAGAAAAGACATAAGCAAAGACTATGAGGAATATTTGCAAGACATAGAAT  
AGTGTGGAAAATGTGCAATATGTGATGTGGCAAATCTCTATTAGGAAATATTCTGTAATCTTCAGACCTAGAAT  
AATACTAGTCTTATAATAGGTTTGTGACTTTCCTAAATCAATTCTATTACGTGCAATACTTCAATACTTCATTTA  
AAATATTTTTATGTGCAATAAAATGTATTTGTTGTATTTTGTGTTTCAGTACAATTATAAGCTGTTTTTATATAT  
GTGAAATAAAAGTAGAATAAACACAAAAA

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**FIGURE 673**

MSSENCFVAENSSLHPESGQENDATSPHFSTRHEGSFQVPVLCVMMNVVFITILIIALIALSVGQYNCPGQYTFS  
MPSDSHVSSCEDWVG YQRKCYFISTVKRSWTS AQNACSEHGATLAVIDSEKDMNFLKRYAGREEHWVGLKKEPG  
HPWKWSNGKEFNW FNV TGSDKCVFLKNT EVSSMECEKNLYWICNKPYK

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**FIGURE 674A**

CCGGGGTCCCCTTTACCCCAAGTGAGCCAGCTCAGGCTGTCTGCAAAGCCGGAGGTGCGGGCAGCTCCGGGCATT  
GCATTGGTGCGGAGGCTTTTATATGCCAGAGAACCCTGAGTGTGCCCTTGACATGACAAGGAGCCGTCGTCGTTA  
GGACTACCGACCAGACTCCCGGAAATC**ATGTT**GGTAGGATCCCAGTCTTTTTTCGCCTGGAGGGCCCAATGGGATC  
ATTAGAAGCCAGTCCTTTGCGGGTTTCAGCGGCCTCCAGGAAAGGCGATCCAGGTGTAACCTCTTCATTGAAAAAT  
TCCTCCGCTCTCAAGAAGCCTCAGGCCAAACTGAAGAAAAATGCACAATTTAGGCCACAAAAACAACAATCCCCC  
AAAGAGCCTCAGCCTAAAAGGGTGGAAGAAGTCTACAGGGCCTTGAAAAATGGACTTGATGAATATCTGGAGGTT  
CACCAGACGGAGCTGGACAAGTTGACAGCTCAGTTAAAAAGATATGAAAAGAACTCTCGCCTGGGTGTACTGTAT  
GACCTAGACAAGCAAATTTAAACAATTGAAAGATACATGAGACGCCTGGAGTTTCATATAAGTAAGGTAGATGAA  
CTCTATGAAGCTTATTGTATCCAGCGACGCCTCCAGGATGGTGCCAGCAAAATGAAGCAAGCCTTCGCAACATCC  
CCTGCCAGCAAAGCTGCCCGGGAGAGTCTGACAGAGATCAATCGGAGCTTCAAGGAGTACACAGAGAATATGTGC  
ACCATGAAGTGGAGCTAGAGAATCTGCTGGGAGAATTCTCCATCAAGATGAAAGGTCTGGCTGGCTTTGCACGC  
CTCTGTCTGGAGATCAATATGAAATTTTCATGAAGTATGGCCGGCAGCGGTGGAAGCTGAAAGGCCAAATAGAA  
GTAAATGGCAAGCAGAGCTGGGATGGAGAAGAAACAGTTTTTCTGCCCTGATAGTTGGGTTCATCTCCATCAAG  
GTCACGGAGCTCAAAGGGCTAGCAACTCACATCCTGGTAGGTAGCGTGACCTGTGAGACCAAAGAGCTGTTTGCA  
GCCCCACCTCAGGTAGTGGCTGTGACATCAATGACCTTGGTACCATCAAACCTGAACCTGGAAATCACCTGGTAT  
CCATTTGACATGGAGGACATGACCGCATCCTCAGGCGCTGGGAACAAGGCAGCAGCCCTTCAGAGGAGAATGTCC  
ATGTACAGCCAGGGTACCCCGGAAACGCCCACCTTCAAAGACCACTCCTTCTTTAGGTGGCTGCATCCTTCCCCA  
GACAAGCCCAGGCGGCTGTCTGTCTTGAGTGCCTTGCAAGACACTTTCTTTGCCAAGCTGCACCGCAGCCGCTCC  
TTCAGTGACCTGCCCTCCCTCAGGCCGAGTCCCAAGGCCGTGCTAGAGCTCTATTCAAATCTACCTGATGACATC  
TTTGAAAAATGGAAGGCAGCCGAGGAGAAAAATGCCACTGTGCTCAGCTTCAGTGACCTGCCCAACGGGGACTGC  
GCCCTCACCTCCCCTCAACAGGCTCCCCTTCCAACCTCAACAAATCCAGAAATTACCATCACCCCTGCGGAGTTT  
AACCTCAGCAGCTTGGCCTCCAGAATGAGGGTATGGATGACACCAGCTCAGCATCTTCCAGGAACCTCCCTGGGA  
GAAGGCCAAGAGCCAAAGTCACACCTGAAGGAGGAAGACCCAGAGGAGCCAGAAAACCTGCCTCGGCCCCATCT  
GAGGCTTGCCGCCGACAGTCTCAGGTGCTGGGGCTGAGCACCTGTTCTTGAGAATGATGTTGCAGAAGCACTT  
CTGCAAGAGTCTGAGGAGGCCTCTGAGCTCAAGCCTGTGGAACCTGGACACTTCGGAAGGAAACATCACAAAGCAG  
CTGGTCAAGAGGCTCACATCTGCAGAGGTGCCAATGGCCACAGACAGGCTGCTCTCTGAGGGTTCTGTTGGTGGA  
GAATCTGAAGGCTGCAGATCCTTTCTAGATGGAAGCTTAGAGGATGCTTTTAATGGGCTTTTACTTGCATTAGAA  
CCACATAAAGAGCAGTATAAAGAGTTTCAGGATCTGAACCAAGAAGTCATGAATTTGGATGATATTCTAAATGC  
AAGCCAGCAGTAAGCCGACAGGTCTTCCAGTTTAAGTCTCACAGTTGAAAGTGCTTTAGAAAGCTTTGATTTT  
CTGAACACCTCTGATTTTGACGAGGAGGAGGATGGTGATGAGGTTTGTAAATGTTGGCGGAGGTGCTGACTCAGTA  
TTTTTCAGACACTGAGACTGAGAAACACAGTTACAGGTGCGTTACCCAGAAGCCAGGGGGCATCTCAGTGAAGCG  
CTCACTGAAGACACAGGAGTTGGGACCAGTGTGGCAGGAAGTCTCTCCCACTGACCACAGGCAACGAGAGCCTG  
GACATCACCATCGTCAGGCACCTCCAGTACTGCACCCAACTCGTGCAGCAAATTGTTTTCTCAAGCAAAACCCCA  
TTTGTGGCAAGAAGTCTCTTAGAGAAGCTTTCTAGGCAGATCCAAGTGATGGAGAACTCGCAGCTGTCAGTGAT  
GAGAACATAGGAAATATCAGTTCTGTTGTGGAAGCCATACCAGAATTTACAAAAAGCTGTCTTTGCTGTCAATC  
TGGACCAAGTGCTGCAGCCCTGTTGGTGTCTACCACAGCCCAGCGGACAGAGTGATGAAGCAGCTGGAGGCCAGC  
TTTGCCAGAAGTGTCAACAAAGAATATCCAGGACTTGACAGCCAGTGTTTCGAACCCTGGTGTCCCAAATCTG  
GACCAGGCTGAGCCTCTGCTTTTCCCTCAGCCTGTCTCGGAAGTCGTCACTGTTTTCCAGTATTACAGTTACTTC  
ACCAGCCACGGCGTCAGTGACCTGGAGAGTTACCTGAGCCAGCTGGCCAGGCAAGTTTCCATGGTTACAGACTCTG  
CAATCACTAAGAGATGAAAACTGCTACAAACCATGAGTGACCTTGCTCCAGCAACCTCCTGGCCAGCAGGAA  
GTACTCAGGACTCTGGCTCTGCTATTAACCAGAGAGGACAACGAAGTTAGCGAGGCTGTGACGCTTTACTTGGCA  
GCAGCCTCCAAAAATCAGCATTTCAGGGAAAAGGCCTTGCTCTATTACTGTGAAGCACTAACAAAGACAAACCTC  
CAGCTCCAGAAAGCAGCTTGCCCTGGCTCTGAAAATCCTTGAGGCTACTGAAAGCATTAAAAATGCTGGTGACATTG  
TGTCAATCTGATACTGAAGAAATCAGAAATGTGGCCTCAGAAACCCCTCTTGCTCTGGGAGAAGATGGGCGGCTG  
GCATATGAACAATTTGGACAAATTTCTCGAGACTGTGTTAAAGTCGGAGGTCGTCATGGAAGTGAAGTTGCCACA  
GCCTTTT**TAA**TTACAGATTAACCTGCCTAACAGCTGTCTTAATATCTGGCCCTTTTCATCAGGATGGTGCTGTGGTT  
TGGGCTGGAAATTTGTTAGAGCCTGAGAGACACGACAACTGAAATAAAAAATGTAGGCCAGGTGCAGTGGCTCATG  
CCTGTAATCCAGTACTTTGGGAGGCCAACGCAGGAGAATTGCTTAAGCCCAGGAGGTTCAAGACCAACCTGGGC



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**FIGURE 674B**

AACATAGCAAGGCCCTGTCTCTACAAAAAATAGTTTAATTAGTCGGGCGTGGTGGCATGCACCTGTAGTCCCA  
GCTACTTGGGAGGCTAAGGTGGGAGGATTGCTTGAGCCCAGAAGATTCAGGCTGCAGTGAGCCATAATTGCCCA  
CTGCACTCCAGACTGGGTGACAGAGCAAAACCCTGTCTCAAAAAACAAAAACAACAACAACACTAAAAAACATG  
TTATAGAAAGAATTCAGAGTCTCGTTTTACAGTACCTATCTACTTTTTCTTTGGCCAATATAGAATAGGGCTATG  
GTATAATTCAAATAGATTACATCGTCGATTGTGTCTAATAATACTCAGTGAAAGAGTCCATCTTATCTTAATATG  
TATGAAATTTAAAAATAGCCATCTTTGTACTTTTTTGCAAGTTTCTCTATAAGCTTGAAATAGTCATGTGATACT  
TCGACAAACATCATATGCCTTGCAGTTTTTCTCGGTCTGTCTCAGGGTTGAGTAGTCCCTTAGCTACCTAAC  
TTTACTTTCAATACAAAGCACAAAAAGAATACTTCAAATAAAAGTTTGCCTGCAGAACCTGGCAAAATGACCCA  
TTATGAGAGTTTAGATGTTTTAATTTTATGTGCTCCCAGCTACTCTGGAGTCTGAGGTGGGAGGATCACTTGAGG  
CAGAGGTTGCAGTAAGCTGAGATTACACTACTGCACTCCAGCCCATGTGACAGAGGAATGAGAGCCAGTCTCAAA  
AAAAAAAACAAAAAATCCCATAAATTTATTTTGTCTTTTCCCCATCCTGAAAATTCCTCAAATCATGTTTCCA  
TTATGGAAAAATGATAAGTAAATGACTAAGAACTACATTAAGATTATGCCTATACACTTAAACAAAAAATCAAA  
GCTTATGCTTTTTTTTTTTAATTAATGAGAGCTATTTTTTATGATATTCTTACCATAGGGGTGTTTTGCTGCTAA  
GACAAATCAAAACCAAAAGCTGTAGATTACAAACCTGTGATGCTCTTTGAGGTGGAGGAACCTAGAAGTCAGAG  
AAATCCTAATGGAGTAGGAGTGGAGGAACATTTAAAGTGGTCCCTCCTTCTGTAAAAATGACCGTGGGATTAGAA  
AGAAGGACATCCTGAGGGGTGGTTACTGCCCCCAGGGAAATCACTCACTGGTAGGATTCCCTGGCCAAATAGTTC  
AAACATCAGGTCCCATTATTGCTTCAGTATCAGAGATGCAAGTTCATTAAAGCAAAGTACAAGACCATTTCAGTAGC  
TCTTATTAAATATCTTTTCTCCTCTAAAGAGTGTAAGGTGGGGTATGCCAAGGTATCAAAACAATATATGT  
GAGTGTAATTTAAACTGTGGAATATCAACTGTACTATGGACGTGTTTGTATCATTTTAGATGTCATTTTAAATATT  
TACATTTTAGCAAGACTTTTAAAAAGGACTCATTTCAATTCAAAGTGCAAATTGTTTGCCAGGCTTCTGGCAAAT  
GGTTCTTTCAACTGTGAACCTATAGTGACATATCTGTATATTTATAAATATTATATATATTTCATACATCCTTCA  
GTTTAAAGGTACATTGTACAGTCTGTAGTTAGGAGGTATAGCCTATAGCTTATGTTAAATGGTTGAAATGGTTCT  
TTTTATAGAAAGTCAAACACAGATGTTACAGGATTTTGTGTTGGTTTGTGTCATTTTTTTATTTTTTATTTTGACT  
ATTGCATGAGTAATTAATTCAGATCTTTTGATTCACTTCTGTATTTTATGTTTGGTTGAGGGGTGCTTTTAGT  
TGTGTGGCATTGTATTCAATGATCTTTCAGTCATGTAAGTTAAAAATAAAATTATTTTTGAATTACTAGC

**FIGURE 675**

MLVGSQSFSPGGPNGIIRSQSFAFSGLQERRSRCNSFIENSSALKKKPQAKLKKMHNLGHKNNNPPKEPQPKRVE  
EVYRALKNGLDEYLEVHQTELDKLTAKLQKDMKRNSRLGVLYDLQIKTIERYMRRLEFHISKVDELYEAYCIQR  
RLQDGASKMKQAFATSPASKAARESLTEINRSFKEYTENMCTIEVELENLLGEFSIKMKGLAGFARLCPGDQYEI  
FMKYGRQRWKLKGKIEVNGKQSWDGEETVFLPLIVGFISIKVTELKGLATHILVGSVTCETKELFAARPQVVAVD  
INDLGTIKLNLEITWYPFDMEDMTASSGAGNKAALQRRMSMYSQGTPETPTFKDHSFFRWLHPSPDKPRRLSVL  
SALQDTFFAKLHRSRFSFSDLP SLRPSPKAVLELYSNLPDDIFENGKAAEEKMPLSLSFSDLPNGDCALTSHSTGS  
PSNSTNPEITITPAEFNLSSSLASQNEGMDDTSSASSRNSLGEGQEPKSHLKEEDPEEPRKPASAPSEACRRQSSG  
AGAEHLFLENDVAEALLQESEEASELKPVELDTSEGNITKQLVKRLTSAEVPMATDRLLSEGSVGGEGCRSFL  
DGSLEDAFNGLLLALEPHKEQYKEFQDLNQEVMLDDILKCKPAVSRSRSSSLSLTVESALESFDFLNTSDFDEE  
EDGDEV CNVGGGADSVFSDTETEKHSYRSVHPEARGHLSEALTEDTGVGTSVAGSPLPLTTGNESLDITIVRHLQ  
YCTQLVQQIVFSSKTPFVARSLLEKLSRQIQVMEKLA AVSDENIGNISSVVEAIP EFHKKLSLLSFWTKCCSPVG  
VYHSPADRV MKQLEASFARTVNKEYPGLADPVFRTLVSQILDQAEPLLSSSLSSSEVTVFQYYSYFTSHGVSDLE  
SYLSQLARQVSMVQTLQSLRDEKLLQTMSDLAPSNLLAQQEVLR TLALLLTREDNEVSEAVTLYLAAASKNQHFR  
EKALLYCEALT KTNLQLQKAACLALKILEATESIKMLVTLCQSDTEEIRNVASETLLSLGEDGRLAYEQLDKFP  
RDCVKVGGRHGTEVATAF

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**FIGURE 676**

CCCGCCTCTTCCCTCCCTTCTTTCTTTCTTTGCTTTTCGCCGCGCACTCCGCCGCC**ATG**GAGCAGCGCCGCGTCACC  
GACTTCTTCGCGCGCCGCCGCCCGGGCCCCCGCATCGCGCCGCCAAGCTGGCCTGCCGCACCCCCAGCCCC  
GCCAGGCCCGCACTCCGCGCCCCGGCCTCCGCTACCAGTGGCAGCCGCAAGCGCGCCCGCCCGCCCGCCCC  
GGACGCGACCAGGCCAGGCCACCGGCCCGCAGGAGACTGCGGCTGTCGGTGGACGAGGTTTCCAGCCCCAGTACC  
CCCGAGGCCCGCAGACATCCAGCCTGCCCTTCTCCGGGCCAGAAGATAAAGAAATCCACCCCGGCAGCAGGTCAG  
CCGCCCCACCTGACATCCGCGCAGGACCAGGACACCATCTCTGAGCTTGCGTCATGCCTGCAACGGGCCCGGGAG  
CTGGGGGCAAGAGTCCGGGCGCTGAAGGCCAGTGGCCAGGATGCTGGGGAGTCTGCACCCAGAGGCCGAGGGC  
CGCCCTGAGGAGCCATGTGGCGAGAAGGCGCCCGCCTACCAGCGCTTCCATGCCCTGGCCCAGCCCGGCCCTGCCG  
GGACTCGTGCTGCCCTACAAGTACCAGGTGCTGGCGGAGATGTTCCGCAGCATGGACACCATCGTGGGCATGCTC  
CACAACCGCTCCGAGACGCCACCTTTGCCAAGGTCCAGCGGGGCGTCCAGGACATGATGCGTAGGCGTTTTGAG  
GAGCGCAATGTTGGCCAGATCAAACCGTGTACCCGGCCTCCTACCGCTTCCGCCAGGAGCGCAGTGTCCCCACC  
TTCAAGGATGGCGCCAGGAGGTGAGATTACCAGCTCACCATCGAGCCACTGCTGGAGCAGGAGGCTGACGGAGCA  
GCCCCCAGCTCACGGCCTCGCGCCTCCTGCAGCGACGGCAGATCTTCAGCCAGAAGCTGGTGGAGCACGTCAAG  
GAGCACCACAAGGCCTTCCCTGGCCTCCCTGAGCCCCGCCATGGTGGTGGCGGAGGACCAGCTGACCCGCTGGCAC  
CCGCGCTTCAACGTGGATGAAGTACCCGACATCGAGCCGGCCGCGCTGCCCCAGCCACCCGCCACGGAGAAGCTC  
ACCACTGCTCAGGAGGTGCTGGCCCCGGGCCCGCAACCTGATTTACCCAGGATGGAGAAGGCCTTGAGTCAATTG  
GCCCTGCGCTCTGCTGCGCCAGCAGCCCCGGGTCTCCAGGCCAGCACTGCCGGCTACCCACCAGCCACCCCCG  
CCTGCAGCCTCTCCAGTGCTCTGAAGGGGTGTCCAGGATCTGCTGGAGCGGATCCGAGCCAAGGAGGCACAG  
AAGCAGCTGGCACAGATGACGCGGTGCCCGGAGCAGGAGCAGCGGCTGCAGCGCTTAGAACGGCTGCCTGAGCTG  
GCCCCGCTGCTGCGGAGCGTCTTTGTGTCCGAACGCAAGCCTGCGCTCAGCATGGAGGTGGCCTGTGCCAGGATG  
GTGGGCAGCTGTTGTACTATCATGAGCCCTGGGGAAATGGAGAAGCACCTGCTGCTCCTCTCCGAGCTGCTGCCG  
GACTGGCTCAGCCTCCACCGCATCCGCACCGACACCTACGTCAAGCTGGACAAGGCCGCGGACCTGGCCCCACATC  
ACTGCACGCCTGGCCCACCAGACACGTGCTGAGGAGGGGCT**GTGA**GCCTGGGGGCCACTGTGGACAGACGTGGGC  
TTCAGAAGCTCGCTGGCCTGGGCCCACCAGCATTTTCTTTTATGAACATGATACACTTTGGCCTTCCCTTTCCCCA  
GCGCCCCCTGAGGGCCAGAGGCAGATGTGGGCTGCAGGCTGCACAGCCCCAGGGTCTCTGGCTGCGGGCGGTGGGC  
CCCTTCATGGGGCTCACCTGGTGGATTACATTAAACCGGTTTCTGTGGGCACCTTTGTCTTGTCTGCTGGTGGG  
GAAGGGAAGCCAGATCCAGCACCCCCTGGGGGGCCATCGGGAGTGTGGCTGGGGGTGAAGGGGGCTCTGTGGCAA  
TATGGGGTTGGGTAGTGTGGGTGGCAGGCCATCCCCCTCTAATCTTGGAACCTCTGAATATGGGACCTCCCACAGC  
AAAGGGTGACTTTTGTCTAATAAGAAAGACTGGGGTGGGTGTGGTGGCTCACGCCTGTAACCCAGCACTTTGGGA  
GGCCAAGGTGGGCAGATCACGAGGTCAAGAGATCGAGACCATCCTGGCGAACATGGTGAAACCCCATCTCTACTA  
AAAATACAAAAAATTAGCCGGGTGTGGTGGTGGGCACCTGTCTGCCAGCTACTAGGGAGGCTGAGGCAGGAGAA  
TGGTGTGAACCCAGGAGGCACAGCTTGCAGTGAGCGAAGATCGCACCACTGCACGCACTCCAGCCTGGGTGACAG  
AGCGAGACTCCGTCTCAAAAAAAAAAATTTCAAGACTGGAGAGGTGATCCTGAATTGTCCAGCTACGCCCCATGT  
CATCACAGGGCCTTCATGACAGGGCCAGAGCCAGCCAGCTTTGAAGACGCGGCCCTGCCCCGACACAGGCAGCCT  
GGAGAAGCTGGGCAGGACAAGTAGGACATCCCTGGAGCCTCCAGAAGGGACTGGCCTCTGCCACACCTTGACTT  
CAGTATTTCTGACCTCCTAACTCTAATAAAGTCATGCTTACAGCCACTAAAAAAAAAAAAAAAAAAAAAAAAA  
AA

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**FIGURE 677**

MEQRRVTDFFARRRPGPPRIAPPKLACRTPSPARPALRAPASATSGSRKRARPPAAPGRDQARPPARRRLRLSVD  
EVSSPSTPEAPDIPACPSPGQKIKKSTPAAGQPPHLTSAQDQDTISELASCLQRARELGARVRALKASAQDAGES  
CTPEAEGRPPEPCGEKAPAYQRFHALAQGPLGLVLPYKYQVLAEMFRSMDTIVGMLHNRSETPTFAKVQRGVQD  
MMRRRFEERNVGQIKTVYPASYRFRQERSVPTFKDGARRSDYQLTIEPLLEQEADGAAPQLTASRLLQRRQIFSQ  
KLVEHVKEHHKAFLASLSPAMVVPEDQLTRWHPRFNVDEVDPDIEPAALPQPPATEKLTTAQEVLARARNLISPRM  
EKALSQALALRSAAPSSPGSPRPALPATPPATPPAASPSALKGVSQDLLERIRAKEAQKQLAQMTRCPEQEQLQR  
LERLPELARVLRVSVFVSEKRPALSMEVACARMVGSCCTIMSPGEMEKHLLLLSELLPDWLSLHRIRTDITYVKLDK  
AADLAHITARLAHQTRAEEGL

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**FIGURE 678**

GCTCAGATACGCGACGCGTAGCAGGCGGGGACCGAACGGGTGCCTCAGTGTCTTCCCCTCCCCTCGCCTGGCCT  
CGCCGTCTCTCCCCGCAGCCGGACCGGAACATATGTGATCCCGGAAGTTCCGGGGCCTTTGCTGTGTGGGATAAA  
CAGTA**ATG**GCGGAGGCTGCAACTCCCGGAACAACAGCCACAACATCAGGAGCAGGAGCGGCAGCGGCGACGGCGG  
CAGCAGCCTCCCCACCCCGATCCCCACAGTCACCGCCCCGTCCCTGGGGGCGGGCGGAGGGGGCGGCGGCAGCG  
ACGGCAGCGGCGGCGGCTGGACTAAACAGGTCACCTGCAGGTATTTTATGCATGGGGTTTGTAAAGGAAGGAGACA  
ACTGTGCTACTCGCATGACCTCTCTGACAGTCCGTATAGTGTAGTGTGCAAGTATTTTCAGCGAGGGTACTGTA  
TTTATGGAGACCGCTGCAGATATGAACATAGCAAACCATTGAAACAGGAAGAAGCAACTGCTACAGAGCTAACTA  
CAAAGTCATCCCTTGCTGCTTCCTCAAGTCTCTCATCGATAGTTGGACCACTTGTTGAAATGAATACAGGCGAAC  
GTGAGTCAAGAAATTCAAACTTTGCAACTGTAGGAGCAGGTTTCAAGGACTGGGTGAATGCTATTGAGTTTGTTT  
CTGGGCAACCCTACTGTGGCCGTACTGCGCCTTCCTGCACTGAAGCACCCCTGCAGGGCTCAGTGACCAAGGAAG  
AATCAGAGAAAGAGCAAACCGCGTGGAGACAAAGAAGCAGCTGTGCCCCATGCTGCAGTGGGAGAGTGCCGAT  
ACGGGGAGAACTGTGTGTATCTCCACGGAGATTCTTGACATGTGTGGGCTGCAGGTCCTGCATCCAATGGATG  
CTGCCCAGAGATCGCAGCATATCAAATCGTGCATTGAGGCCCATGAGAAAGGACATGGAGCTCTCATTGCGGTCA  
GCAGCAAGGACATGGTGTGTGGGATCTGCATGGAGGTGGTCTATGAGAAAGCCAACCCAGTGAGCGCCGCTTCG  
GGATCCTCTCCAAC TGCAACCACACCTACTGTCTCAAGTGCATTGCAAGTGGAGGAGTGCTAAGCAATTTGAGA  
GCAAGATCATAAAG**TG**AGACTCCTCCCCAGTCTTCATTTGTGCTTTCTCTTTTGGGGAAGAATTTAGTAACTTGT  
GCCAACTTTCAACCAGATGGACCGCATTTAAATGCATGCATTTTATCTTGAAACTGGGATATTCTAATGGGGATT  
TCTTCTTTGTATTTTCACTAGCTTCTAGGTTAGTTGGTCTATCTACTTTTATTTGAATGAGGAAACCCTGTGTAT  
CAGTTAGAATCTTCGTGCTTTTTCTGAGGAGATTGTGTTAATGGATTATTAGCCAGTTTAGGCTCAGTGAACAA  
ACTGATCTAGCTCTGAATGTATGTTTCTGACGTTTTACATTTCCACTTTCCTATTCCATTCAATTAAGCTAGCCA  
ACAATCCACCATCCTTTAAAGATTGTTCTCATAACTGAACAAAAACACATAATCTAAACAGAGCAAAGCTACAA  
GAAATAAATTTATTTAAACGAAAAAAAAAAAAAAAAA

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**FIGURE 679**

MAEAATPGTTATTSGAGAAAATAAAASPTPIPTVTAPSLGAGGGGGGSDGSGGGWTKQVTCRYFMHGVCKEGDNC  
RYSHDLSDSPYSVVCKYFQRGYCIYGDRCRYEHSKPLKQEEATATELTTKSSLAASSSLSSIVGPLVEMNTGERE  
SRNSNFATVGAGSEDWVNAIEFVPGQPYCGRTAPSCTEAPLQGSVTKEESEKEQTAVETKKQLCPYAAVGECRYG  
ENCVYLHGDSKCDMCGGLQVLHPMDAAQRSQHIKSCIEAHEKDMELSAVSSKDMVCGICMEVVYEKANPSERRFGI  
LSNCNHTYCLKCIRKWSAKQFESKIIK

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**FIGURE 680**

GGCTCGAGTGCCTGGCGGGCTCTGGCTTCCGCGTCCGCCCTGCTCCGGCTTCGCCCGCAGCTCCGCGCCCGCGG  
GCAACCAAGCCCCCAGCGAAGCCCGCACAGCTCCGGGTGCCAGGACGGGGGGCC**ATG**CCGTGCCGGAGGGAGGAG  
GAAGAGGAAGCCGCGGAGGAGGCGGAGGGGGAGGAAGAGGAGGACGACAGCTTCCTCCTGCTGCAGCAGTCGGTG  
ACGCTGGGCAGCTCGGGCGAGGTGGACCGCTGGTGGCCAGATCGGCGAGACGCTGCAGCTGGACGCGGCGCAG  
GACAGCCCGGCTCGCCGTGCGCGCCCCCGGGGTGCCGCTGCGGGCCCCGGGGCCCTGGCTGCGGCGGTGCCG  
GCGGACAAGGCCCGGCCCCCGGCGGTGCCGCTGCTGCTGCGGCCCGCTTCGGCTGAGACGGTGGGCCCGGCGCCC  
TCTGGGGCCCTGCGCTGCGCCCTAGGGGACCGCGGCCCGCTGCGCGGACGCGCTGCGCCCTACTGCGTGGCGGAG  
GTCGCCCGCAGGCCCCAGCGCGCTGCCGGGGCCGTGCCGGCGAGGATGGCTCAGGGACGCGGTACCTCCCCGCGC  
TTGCAGCAGCGCCGATGGACCCAAGCCGGGGCACGCGCCGGCGACGACGACCCGCATCGGCTCCTCCAGCAGCTC  
GTGCTCTCGGGAAACCTCATCAAGGAAGCCGTGCCGAGACTCCAACGAGCCGTGCCCGCGGTTGCAGCCACGGGC  
CCCCGAAGCGCCCCCTGGGCCCGGGGGAGGCCGACGCGGACCTGACCGCATTGCCCTGCAGCCCTCAGGCTCCTTG  
CTCT**TGA**CGCAGGCCTCCTGGAGGAGGAAGTGGAGGCCGTGCGTAGACCCAACAGCGTCCAGTTCCTACTAACTC  
TGAGCTGAAGCCGACGTCGCCAGCCTGGGAGCGACCACCTTTGGCTGCGGGGAGGCGCGTGGGGAGAGATCTCAAC  
CAGAGAAGTTACCAGCCGCGGCGAGGCCGTCCGAGAAAACTTAAGCGTGGAGAAATGTATGCCCAGGGTGCTTC  
CGTGGGGCATGAGAATTTCCCGGGCCATCCAAGCCCAAGGACCTGGGATAAACTGGGAGAACTATGGCAGCTACT  
TGCATCGACTTGTACCTCACTTAGCCCTTGGGGGCGTCGTGAGCTTGGATTGTTTAAGGAGGGCTCAGGGGTAGG  
AATCGCGATGGCTTTATAACAATACTTGAAAACTAACGACACGCATACATTTTCTTATTTTCTGGTGGAGGAGCT  
TAGTAAGTGGTGCTACAATTGCTGTGCAAAGAAATTCAGAGGGGAGAAGAATGTAAAAGTTTGGTGGTGGGTGG  
CTTGGCATTGCCCTTTTTCCACCGATTCCGTGGCTGGTGAAGGTGGGAGATGTGAATCCAATTAAGGGACTG  
GAGAGAGGTGAAGAATTTTGCAGGTGGGAGATTTGGATTGAATGTGGACTTGTAATGACTTGACCTTGCCATC  
TGTGTTCAAGGTCACGGTTTGCTGTGGGGTTCTGGGAGAGCTTACTACCCCGGAGTCTTTTCTTTCTCTTGCT  
CCAAGAAGAGCCCTGTTGGTGCTTTACCACCGCTTGGAGTCTCCCGAGGACACAAACAGGCAGAGAGGGACGTGT  
AGGGAGAGTTCTTTCTGTTTTCTGTGCTTTCTTTTACAGGACTCCCGGAAGGCCACTCATGGCCATGCCAGG  
AGCTTTCTCAGAAACAGTCATAAACGATCTCTTGAGTCTCTTTCTTGCTCTCCAGCTGAGCTTTCTTATTCAC  
CCTTTCTGGTGTCTATAGGAATGCATGAGAGACCCTGGACGTTTTTCTGCTCTCTTCTGGCCCTCCATGGAGCCA  
TGGGCCCTCGGCCTCGGCGGCTCCTCACCTCACAAATTTATTTCTCTCCCGTGCCAGCCCTTCTTTTGTGTCTG  
AAACCGGTTTTAAATGTGACTCTCCAGAGAAGAAGCCGCTGGCTGTATGAACTTGACGGCGCTTTTGTAAGG  
TGCCACCCCAAACCTTAAGGTAGCTAAACCAATTTTTAAAGATTCAATGGCTTGTTTCATCCTCCAGATGTAGC  
TATTGATGTACACTTCGCAACGGAGTGTCTGAAATTGTGGTGGTCCTGATTTATAGGATTTTCA

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**FIGURE 681**

MPCRREEEEEAGEEAEGEEEEEDDSFLLQSVTLGSSGEVDRLVAQIGETLQLDAAQDSPASPCAPPGVPLRAPG  
PLAAAVPADKARPPAVPLLLPPASAETVGPAPSGALRCALGDRGRVRGRAAPYCVAEVAAGPSALPGPCRRLR  
DAVTSRRLQRRWTQAGARAGDDDPHRLQLVLSGNLIKEAVRRLQRAVAAVAATGPASAPGPGGGRSGPDRIA  
LQPSGSL



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**FIGURE 682**

ATGGCTGTGTGAACGACTGCC**ATG**GCCCCACCGGAAGCTTTGAGAGCGTGGGGAGCGGCATGTTGGACCATAGGGTG  
AGACCAGGTCCTGTCCCTCACAGCCAGGAGCCCCGAGAGCGAGGACATGGAGCTGCCCTTGGAGGGCTATGTGCCC  
GAGGGCCTGGAGCTGGCTGCCCTGCGGCCAGAGAGCCCCGCGCCAGAGGAACAGGAGTGCCACAACCACAGCCCC  
GATGGGGACTCCAGCTCTGACTACGTGAACAACACCTCTGAGGAGGAGGACTATGACGAGGGCCTCCCTGAGGAG  
GAGGAGGGCATCACCTACTACATCCGCTACTGCCCTGAGGACGACAGCTACCTAGAGGGCATGGACTGCAACGGG  
GAGGAGTACCTGGCCCCACAGTGCACACCCTGTGGACACTGATGAATGCCATGAGGCGGTGGAGGAGTGGACGGAC  
TCGGCGGGCCCCGACCCCCACGGCCACGAGGCTGAAGGCAGCCAGGACTACCCAGACGGCCAACCTGCCATTCCG  
GAGGATGAGCCCTCCGTCCCTTGAAGGCCATGACCAGGAAGAAGATGGTCACTACTGTGCCAGCAAAGAGGGCTAC  
CAGGACTACTACCCAGAGGAGGCCAACGGGAACACCGCGCCTCCCCCTACCGCCTGAGGCGTGGGGATGGGGAC  
CTGGAGGACCAGGAGGAGGACATTGACCAGATCGTGGCAGAGATCAAGATGAGTCTGAGCATGACCAGCATCACC  
AGCGCCAGTGAGGCCAGCCCCGAGCATGGGCCTGAGCCAGGGCCTGAGGACTCTGTAGAGGCCTGCCACCCATC  
AAGGCCAGCTGCAGCCCCAGCAGGCACGAGGCGAGGCCCAAGTCGCTGAACCTCCTTCCCGAGGCCAAGCAGCCC  
GGAGACCCCCAGAGAGGCTTCAAGCCCAAGACCAGGACCCCCAGAAGAGAGGCTGAAGTGGCCCCACGAGCAGGTT  
TGCAATGGTCTGGAGCAGCCAAGGAAGCAGCAGCGCTCTGATCTCAATGGACCTGTTGACAATAACAACATTCCA  
AAAACAAAAAAGGTGGCATCATTTCCAAGTTTGGTGGCTGTTCCAGGGCCCCGCAACCAAAAAACCTCATCGAC  
GGGATCATCTTTGCTGCCAATTACCTGGGGTCCACCCAGCTGCTATCAGAACGGAACCCCTTCCAAAAACATCAGA  
ATGATGCAAGCGCAGGAGGCCGTGAGCCGGGTCAAGAGGATGCAAAAAGGCTGCTAAGATCAAGAAAAAAGCGAAT  
TCTGAGGGGGATGCCAGACGCTGACGGAAGTGGACCTCTTCATTTCCACCCAGAGGATCAAGGTTTTAAATGCA  
GACACGCAGGAAACCATGATGGACCACGCCTTGCCTACCATCTCCTACATCGCCGACATTGGGAACATTGTAGTG  
CTGATGGCCAGACGCCGCATGCCCGGTGAGCCTCTCAGGACTGCATCGAGACCACGCCCGGGGCCAGGAAGGC  
AAGAAGCAGTATAAGATGATCTGCCATGTGTTTCAGTTCGGAGGATGCCAGCTCATCGCCAGTCTATCGGCCAG  
GCCTTCAGCGTGGCCTACCAGGAGTTCTGCGAGCCAATGGCATCAACCCGAAGACTTGAGCCAGAAGGAATAC  
AGCGACATCATCAACACCCAGGAGATGTACAACGACGACCTCATCCACTTCTCAAACCTCGGAGAACTGCAAGGAG  
CTGCAGCTGGAGAAGCACAAGGGCGAGATCCTGGGCGTGGTGGTGGTGGAGTCGGGCTGGGGCTCCATCCTGCCC  
ACGGTGATCCTGGCCAACATGATGAATGGCGGCCCGGCTGCCCGCTCGGGGAAGCTGAGCATCGGGGACCAGATC  
ATGTCCATCAATGGCACCAGCCTGGTGGGGCTGCCCTCGCCACCTGCCAAGGCATCATCAAGGGCCTGAAGAAC  
CAGACACAGGTGAAGCTCAACATTGTGAGCTGTCCCCGGTCAACACGGTCTTATCAAGCGGCCAGACCTCAAG  
TACCAGCTGGGCTTCAGCGTGCAGAATGGAATTATCTGCAGCCTCATGAGAGGGGGCATTGCTGAGCGAGGGGGC  
GTCCGTGTGGGCCACCGCATCATCGAGATCAACGGGCAGAGCGTGGTGGCCACAGCCCACGAGAAGATAGTCCAA  
GCTCTGTCCAACCTCGGTGCGAGAGATCCACATGAAGACCATGCCCCGCCCATGTTAGGCTCCTACGGGTCAG  
GAGACCCCGCTGTACATC**TAG**GCCACCCAGCCTGGCCACGCAGCCAGGACACCGGGCAGGGCCGCCGGGCCCA  
GAGGAGCTGGGAGCCGGGCGAGACTTGACCCGACGCCACAGCCCAGCCACGGACGCTGGCTCCCCAAAGGGT  
GTGCCCTCACCAACCACTTGATTTTTTTTCATTTTTGCCAAAAAGGGGTATGTCTTTATCAAAGGAGAGTCACAGAA  
CAAATGTTTGTGTTGTAAGCGTTCCAAGTATTTTGCCACGTTCTGGACTGTCTTCTCCCTGCACAAGCCAGGGTG  
TGTCTCGGTAGCTGTGCGTGGTGTGGAGTGTGTGCTTTCTCCCTGAAGCTGTGCGGAGCGAACTGGCGCCTCC  
GAGGGACGCGGCTCCCGGGGCAGGGCAGCCGTACCCCTGCCTCCCGCCCCCTTGGCTGGGACGTCTGGGGTCTCT  
GTGGGGCCCCCAATGGTCCCAAACAGCTGCCTCTGCCACTGACTGCAGGGACACGGGCAGCCTGGCTCCCAGG  
ACACGACTTGTAATGAAAGTTTGGGGACATGTGATTGATTGATTGATTGATTGTAATAAAGGATGATGGCCACA  
ACATGAAAACCTCCATATTTATTTAGATGCTATTATTACTGTTTGGACTTTTATTTTGGCAGGCTTTTTTCCAGAC  
TCTAGGGTTTTCCAATGTGACTAATGACCACACCTGCCTCTCCCGTCGTCTCTCTGGGCACCCCTCCCACCCGGC  
TGCATACCCGGCCAGGGCTCCACAGAGACAAGGAXGGCACAGGTGTCTGCCCCCTCTTTAAATCGATCTACAC  
ACATCCACGCACATGCGACCCCGAGGGAAACGAAACCCACTCTAGAAAACGCGACCTTGGCCGCACCTAAAGCAG  
CCAGCCGTGAGTGACAGACCCCTTGGCCAGCGTGGCGCAGTGGCCCTGAGCAGTAGTGGCATGTGTGTAGATCAAG  
TCGGATCTAGTCCAGCTCGGTTCAATAGCGATCCATGTAATCTGACGTCATCTTGTCTCGAAGTCTCTTTTTTG  
GCCCAGGCCTTGAAGAATACACTGTGACTTAAGAAGCCTTACCACGCAGTAACTAAAGCTTTAGGATGACTGTAT  
TCGAGGAGTGCCGTGTGTTGCATGCAGCTACCCGTAGGAAGACTTCGCGCATATCACTAATAAACCTGAAGTCGT  
GATGACC

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**FIGURE 683**

MAHRKLESVSGMLDHRVRPGVPVPHSQEPESDMELPLEGYVPEGLELAALRPESPAPEEQECHNHSPDGDSSSD  
YVNNTSEEEDYDEGLPEEEEGITYYIRYCPEDDSYLEGMDCNAGEEYLAHSAHPVDTDECHEAVEEWTD SAGPHPH  
GHEAEGSQDYDPDQLPIPEDEPSVLEAHDQEEDGHYCASKEGYQDYYPEEANGNTGASPYRLRRGDGDLEDQEED  
IDQIVAEIKMSLSMTSITSASEASPEHGPEPGPEDSVEACPP IKASCSPSRHEARPKSLNLLPEAKHPGDPQRGF  
KPKTRTPPEERLKWPHQVCNGLEQPRKQQRSDLNPGVDNNNIPKTKKVASFP SLVAVPGPCEPKNLIDGIIF AAN  
YLGSTQLLSERNP SKNIRMMQAQEAVSRVKRMQKAAKIKKKANSEGDAQTLTEVDLFISTQRIKVLNADTQETMM  
DHALRTISYIADIGNIVVLMARRRMPRSASQDCIETTPGAQEGKKQYKMICHVFESEDAQLIAQSIGQAFSVAYQ  
EFLRANGINPEDLSQKEYSDIINTQEMYND DLIHFSNSENCKELQLEKHKGEILGVVVVESGWGSILPTVILANM  
MNGGPAARSGKLSIGDQIMSINGTSLVGLPLATCQGI IKGLKNQTQVKLNIVSCPPVTTVLIKRPDLKYQLGFSV  
QNGIICSLMRGGIAERGGVRVGHRIIEINGQSVVATAHEKIVQALSNSVGEIHMKTMPAAMFRLLTGQETPLYI

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**FIGURE 684**

TTTTTGCAACCAACATGGTTCTATTAAAACTCTCTTTGACTATGGCATTCAAGGACAGCAATACAATCTTTTTT  
TTTTTAACAAAGCAACTAATATAAAAAATCTGCAAATGCCATATATTCATATCTAGGCTATTCTTCTCATATAGG  
CATGTCATTAGATAGACTTTCTTTCTATTCTTTCCTGAGGIATTTTTTTGTGGTTTACTTTTATTGTACTGCTGG  
ATGCATTATTTTTGATCATCCTTTCCTAAAAATGATTTAAAGACCTGCAAATAATTTTATTGCATAGGACACTATT  
GATGACACATAGAATGGGAGCTGCAAGTATGTGGCATTGGAACAAGCCTTACAAATATTGCATTTTAAGAATACA  
CACATTTTTTACAGTTTGTCTCTTTTAAAAAATTTGAAGTTATAGC

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**FIGURE 685A**

CCTACTCTATTTCAGATATTCTCCAGATTCTAAAGATTAGAGATCATTTCTCATTCTCCTAGGAGTACTCACTTC  
 AGGAAGCAACCAGATAAAAGAGAGGTGCAACGGAAGCCAGAACATTCTCTGGAAATTCAACCTGTTTCGCAGT  
 TTCTCGAGGAATCAGCATTCAAGTCAATCCGGGCCGGGAGCAGTCATCTGTGGTGAGGCTGATTGGCTGGGCAGGA  
 ACAGCGCCGGGGCGTGGGCTGAGCACAGCGCTTCGCTCTCTTTGCCACAGGAAGCCTGAGCTCATTTCGAGTAGCG  
 GCTCTTCCAAGCTCAAAGAAGCAGAGGCCGCTGTTCTGTTTCTTTAGGTCTTTCCACTAAAGTCGGAGTATCTTC  
 TTCCAAGATTTACGTCTTGGTGGCCGTTCCAAGGAGCGGAGGTCTGGGATGGATCTTGAAGGGGACCGCAATGG  
 AGGAGCAAAGAAGAAGAACTTTTTTAACTGAACAATAAAAGTGAAAAAGATAAGAAGGAAAAGAAACCAACTGT  
 CAGTGTATTTTCAATGTTTCGCTATTCAAATTGGCTTGACAAGTTGTATATGGTGGTGGGAACCTTTGGCTGCCAT  
 CATCCATGGGGCTGGACTTCCTCTCATGATGCTGGTGTGTTGGAGAAATGACAGATATCTTTGCAAATGCAGGAAA  
 TTTAGAAGATCTGATGTCAAACATCACTAATAGAAGTGATATCAATGATACAGGGTCTTCATGAATCTGGAGGA  
 AGACATGACCAGGTATGCCTATTATTACAGTGAATTGGTGCTGGGGTGCTGGTTGCTGCTTACATTACAGGTTTC  
 ATTTTGGTGCTGGCAGCTGGAAGACAAATACACAAAATTAGAAAACAGTTTTTTTCATGCTATAATGCGACAGGA  
 GATAGGCTGGTTTGATGTGCACGATGTTGGGGAGCTTAACACCCGACTTACAGATGATGTCTCCAAGATTAATGA  
 AGGAATTGGTGACAAAATTGGAATGTTCTTTTCAGTCAATGGCAACATTTTTTCACTGGGTTTATAGTAGGATTTAC  
 ACGTGGTTGGAAGCTAACCCCTTGATTTTTGGCCATCAGTCCTGTTCTTGGACTGTCAGCTGCTGTCTGGGCAAA  
 GATACTATCTTCATTTACTGATAAAGAAGCTTTAGCGTATGCAAAAGCTGGAGCAGTAGCTGAAGAGGTCTTGGC  
 AGCAATTAGAAGTGTGATTGCATTTGGAGGACAAAAGAAAGAACTTGAAAGGTACAACAAAATTTAGAAGAAGC  
 TAAAAGAATTGGGATAAAGAAAGCTATTACAGCCAATATTTCTATAGGTGCTGCTTTTCTGCTGATCTATGCATC  
 TTATGCTCTGGCCTTCTGGTATGGGACCACCTTGGTCTCTCAGGGGAATATTCTATTGGACAAGTACTCACTGT  
 ATTTTCTGTATTAATTGGGGCTTTTAGTGTTGGACAGGCATCTCCAAGCATTGAAGCATTTGCAAATGCAAGAGG  
 AGCAGCTTATGAAATCTTCAAGATAATTGATAATAAGCCAAGTATTGACAGCTATTGCAAGAGTGGGCACAAACC  
 AGATAATATTAAGGGAAATTTGGAATTCAGAAATGTTCACTTCAGTTACCCATCTCGAAAAGAAGTTAAGATCTT  
 GAAGGGTCTGAACCTGAAGGTGCAGAGTGGGCAGACGGTGGCCCTGGTTGGAACAGTGGCTGTGGGAAGAGCAC  
 AACAGTCCAGCTGATGCAGAGGCTCTATGACCCACAGAGGGGATGGTCAGTGTGATGGACAGGATATTAGGAC  
 CATAAATGTAAGGTTTCTACGGGAAATCATTGGTGTGGTGAGTCAGGAACCTGTATTGTTTGCCACCACGATAGC  
 TGAAAACATTCGCTATGGCCGTGAAAATGTCACCATGGATGAGATTGAGAAAGCTGTCAAGGAAGCCAATGCCTA  
 TGACTTTATCATGAAACTGCCTCATAAATTTGACACCCTGGTTGGAGAGAGAGGGGGCCAGTTGAGTGGTGGGCA  
 GAAGCAGAGGATCGCCATTGCACGTGCCCTGGTTTCGCAACCCCAAGATCCTCTGCTGGATGAGGCCACGTCAGC  
 CTTGGACACAGAAAGCGAAGCAGTGGTTTCAGGTGGCTCTGGATAAGGCCAGAAAAGGTGCGACCACCATTTGTGAT  
 AGCTCATCGTTTGTCTACAGTTTCGTAATGCTGACGTCATCGCTGGTTTCGATGATGGAGTCATTGTGGAGAAAGG  
 AAATCATGATGAACCTCATGAAAGAGAAAGGCATTTACTTCAAACCTTGTCACAATGCAGACAGCAGGAAATGAAGT  
 TGAATTAGAAAATGCAGCTGATGAATCCAAAAGTGAAATTGATGCCTTGGAATGTCTTCAAATGATTCAAGATC  
 CAGTCTAATAAGAAAAGATCAACTCGTAGGAGTGTCCTGGATCACAAGCCCAAGACAGAAAGCTTAGTACCAA  
 AGAGGCTCTGGATGAAAGTATACCTCCAGTTTCTTTTGGAGGATTATGAAGCTAAATTTAACTGAATGGCCTTA  
 TTTTGTGTTGGTGATTTTGTGCCATTATAAATGGAGGCCTGCAACCAGCATTGCAATAATATTTTCAAAGAT  
 TATAGGGGTTTTTACAAGAATTGATGATCCTGAAACAAAACGACAGAATAGTAAGTGTGTTTCACTATTGTTTCT  
 AGCCCTTGGAATTATTTCTTTTATTACATTTTCTTTCAGGGTTTACATTGCGCAAAGCTGGAGAGATCCTCAC  
 CAAGCGGCTCCGATACATGGTTTTCCGATCCATGCTCAGACAGGATGTGAGTTGGTTTGATGACCCTAAAAACAC  
 CACTGGAGCATTGACTACCAGGCTCGCCAATGATGCTGCTCAAGTTAAAGGGCTATAGGTTCCAGGCTTGCTGT  
 AATTACCCAGAATATAGCAAATCTTGGGACAGGAATAATTATATCCTTCATCTATGGTTGGCAACTAACACTGTT  
 ACTCTTAGCAATTGTACCCATCATTGCAATAGCAGGAGTTGTTGAAATGAAAATGTTGTCTGGACAAGCACTGAA  
 AGATAAGAAAAGAACTAGAAGGTGCTGGGAAGATCGCTACTGAAGCAATAGAAAACCTCCGAACCGTTGTTTCTTT  
 GACTCAGGAGCAGAAGTTTGAACATATGTATGCTCAGAGTTTGCAGGTACCATACAGAACTCTTTGAGGAAAGC  
 ACACATCTTTGGAATTACATTTTCTTTCACCCAGGCAATGATGTATTTTCTATGCTGGATGTTTCCGGTTTGG  
 AGCCTACTTGGTGGCACATAAACTCATGAGCTTTGAGGATGTTCTGTTAGTATTTTTCAGCTGTTGTCTTTGGTGC  
 CATGGCCGTGGGGCAAGTCAGTTTCAATTTGCTCCTGACTATGCCAAAGCCAAAATATCAGCAGCCACATCATCAT  
 GATCATTGAAAAAACCCCTTTGATTGACAGCTACAGCACGGAAGGCCTAATGCCGAACACATTGGAAGGAAATGT  
 CACATTTGGTGAAGTTGTATTCACTATCCCAACCCGACCGGACATCCAGTGCTTCAGGGACTGAGCCTGGAGGT

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**FIGURE 685B**

GAAGAAGGGCCAGACGCTGGCTCTGGTGGGCAGCAGTGGCTGTGGGAAGAGCACAGTGGTCCAGCTCCTGGAGCG  
GTTCTACGACCCCTTGGCAGGGAAAGTGCTGCTTGATGGCAAAGAAAATAAAGCGACTGAATGTTAGTGGCTCCG  
AGCACACCTGGGCATCGTGTCCCAGGAGCCCATCCTGTTTGACTGCAGCATTGCTGAGAACATTGCCTATGGAGA  
CAACAGCCGGGTGGTGTACAGGAAGAGATTGTGAGGGCAGCAAAGGAGGCCAACATACATGCCTTCATCGAGTC  
ACTGCCTAATAAATATAGCACTAAAGTAGGAGACAAAGGAACCTCAGCTCTCTGGTGGCCAGAAACAACGCATTGC  
CATAGCTCGTGCCCTTGTTAGACAGCCTCATATTTTGCTTTTGGATGAAGCCACGTCAGCTCTGGATACAGAAAG  
TGAAAAGGTTGTCCAAGAAGCCCTGGACAAAGCCAGAGAAGGCCGCACCTGCATTGTGATTGCTCACCGCCTGTC  
CACCATCCAGAATGCAGACTTAATAGTGGTGTTCAGAATGGCAGAGTCAAGGAGCATGGCACGCATCAGCAGCT  
GCTGGCACAGAAAGGCATCTATTTTTCAATGGTCAGTGTCCAGGCTGGAACAAAGCGCCAGTGAACCTCTGACTGT  
ATGAGATGTTAAATACTTTTTAATATTTGTTTAGATATGACATTTATTCAAAGTTAAAAGCAAACACTTACAGAA  
TTATGAAGAGGTATCTGTTTAACATTTCCTCAGTCAAGTTCAGAGTCTTCAGAGACTTCGTAATTAAAGGAACAG  
AGTGAGAGACATCATCAAGTGGAGAGAAATCATAGTTTAAACTGCATTATAAATTTTATAACAGAATTAAAGTAG  
ATTTTAAAAGATAAAATGTGTAATTTTGTTTATATTTTCCCATTGGACTGTAACCTGACTGCCTTGCTAAAAGAT  
TATAGAAGTAGCAAAAAGTATTGAAATGTTTGCATAAAGTGTCTATAATAAACTAACTTTTCATGTG

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**FIGURE 686**

MDLEGDRNGGAKKKNFFKLNNKSEKDKKEKKPTVSVFSMFRYSNWLDKLYMVVGTAAIIHGAGLPLMMLVFGEM  
 TDIFANAGNLEDLMSNITNRSNDINDTGFFMNLEEDMTRYAYYYSGIGAGVLVAAYIQVSFWCLAAGRQIHKIRKQ  
 FFHAIMRQEIGWFDVHDVGELNTRLTDDVSKINEGIGDKIGMFFQSMATFFTGFIVGFTRGWKLTLLVILAI SPVL  
 GLSAAVWAKILSSFTDKELLAYAKAGAVAAEVLA AIRTVIAFGGQKKELERYNKNLEEAKRIGIKKAITANISIG  
 AAFLLIYASYALAFWYGTTLVLSGEYSIGQVLTVFSVLIGAFSVGQASPSIEAFANARGAAYEIFKIIDNKPSID  
 SYSKSGHKPDNIKGNLEFRNVHFSYPSRKEVKILKGLNLKVQSGQTVALVGNSGCGKSTTVQLMQRLYDPTGEMV  
 SVDGQDIRTINVRFLEIIGVVSQEPVLFATTIAENIRYGRENVMTDEIEKAVKEANAYDFIMKLPHKFDTLVGE  
 RGAQLSGGQKQRIAIARALVRNPKILLLDEATSALDTESEAVVQVALDKARKGRTTIVIAHRLSTVRNADVIA GF  
 DDGVIVEKGNHDELMKEKGIYFKLVMTQTAGNEVELENAADESKSEIDALEMSSNDSRSSLIRKRSTRRSVRGSQ  
 AQDRKLSTKEALDESIPPVSFWRIMKLNLTWPYFVVGVFCAIINGGLQPAFAIIFSIIIGVFTRIDDPETKRQ  
 SNLFSLLFLALGIIISFITFFLQGFTFGKAGEILTKRLRYMVFRSMLRQDVSWFDDPKNTTGALTTRLANDAAQVK  
 GAIGSRLAVITQNIANLGTGIIISFIYGWQLTLLLLAIVPIIAIAGVEMKMLSGQALKDKKELEGAGKIA TEAI  
 ENFRTVVSLTQEQKFEHMYAQSLOVPYRNSLRKAHIFGITFSFTQAMMYFSYAGCFRFGAYLVAKHKLMSFEDVLL  
 VFSVVFGAMAVGQVSSFAPDYAKAKISAAHIIMIIEKTPLIDSYSTEGLMPNTLEGNTVFGEVVFNYPTRPDIP  
 VLQGLSLEVKKGQTLALVGSSGCGKSTVVQLLERFYDPLAGKVLLDGKEIKRLNVQWLRHLGIVSQEPILFDCS  
 IAENIAYGDNSRVVSQEEIVRAAKEANIHA FIESLPNKYSTKVGDKGTQLSGGQKQRIAIARALVRQPHILLLDE  
 ATSALDTESEKVVQEALDKAREGRTCIVIAHRLSTIQNADLIVVFQNGRVKEHGTHQQLLAQKGIYFSMVS VQAG  
 TKRQ

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**FIGURE 687**

GGCAGCTGCACGGCTCCTGGCCCCGGAGCATGCGCGAGAGCCGCCCCGGAGCGCCCCGGAGCCCCCGCCGTCCC  
GCCCCGGGCGTCCCGCGCCCCGCCGCCAGCGCACCCCCGGACGCTATGGCCCCACCCCTCCGGCTGGCCCCCTTCTG  
TAGG**ATGG**TAGCACACAACCAGGTGGCAGCCGACAATGCAGTCTCCACAGCAGCAGAGCCCCGACGGCGGCCAGA  
ACCTTCCTCCTCTTCTCCTCCTCGCCCGCGCCCCCGCGCGCCCCGGCGCGTCCCCCGCGGTCCCCGGCCCCGGC  
CCCCGGCGACACGCACATTCCGCACATTCCGTTTCGCACGCCGATTACCGGCGCATCACGCGCGCCAGCGCGCTCCT  
GGACGCCTGCGGATTCTACTGGGGGGCCCTGAGCGTGCACGGGGCGCACGAGCGGTGCGCGCCGAGCCCGTGGG  
CACCTTCCTGGTGC GCGACAGCCGCCAGCGGAAGTGCCTTTTCGCCCTTAGCGTGAAGATGGCTCGGGACCCAC  
GAGCATCCGCGTGCACTTTCAGGCCGGCCGCTTTCACCTGGATGGCAGCCGCGAGAGCTTCGACTGCCTCTTCGA  
GCTGCTGGAGCACTACGTGGCGGGCGCCGCGCCGCATGCTGGGGGCCCCGCTGCGCCAGCGCCGCGTGGGCCGCT  
GCAGGAGCTGTGCCGCCAGCGCATCGTGGCCACCGTGGGCGCGAGAACCTGGCTCGCATCCCCCTCAACCCCGT  
CCTCCGCGACTACCTGAGCTCCTTCCCCTTCCAGATT**TGAC**CGGCAGCGCCCCGCCGTGCACGCAGCATTAAGTGG  
GATGCCGTGTTATTTTGTATTACTTGCCTGGAACCATGTGGGTACCCTCCCCGGCCTGGGTTGGAGGGAGCGGA  
TGGGTGTAGGGGCGAGGCGCTCCCGCCCTCGGCTGGAGACGAGGCCGAGACCCCTTCTCACCTCTTGAGGGGG  
TCCTCCCCCTCCTGGTGCTCCCTCTGGGTCCCCCTGGTTGTTGTAGCAGCTTAAGTGTATCTGGAGCCAGGACCT  
GAACTCGCACCTCCTACCTCTTCATGTTTACATATAACCCAGTATCTTTGCACAAACCAGGGGTTGGGGGAGGGTC  
TCTGGCTTTATTTTCTGCTGTGCAGAATCCTATTTTATATTTTAAAGTCAGTTTAGGTAATAAACTTTATTA  
TGAAAGTTTTTTTTTT

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**FIGURE 688**

MVAHNQVAADNAVSTAAEPRRRPEPSSSSSSPAAPARPRPCPAVPAPAPGDTHFRTFRSHADYRRITRASALLD  
ACGFYWGFLSVHGAHERLRAEPVGTFLVRDSRQRNCFALSVKMASGPTSIRVHFQAGRFHLDGSRESFDCLFEL  
LEHYVAAPRRMLGAPLRQRRVRPLQELCRQRIVATVGRENLARIPLNPLVRDYLSSFPFQI



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**FIGURE 689**

GGCAGCTGCACGGCTCCTGGCCCCGGAGCATGCGCGAGAGCCGCCCCGGAGCGCCCCGGAGCCCCCGCCGTCCC  
GCCCCGCGGCGTCCCGCGCCCCGCCGCGCAGCGACCCCCGGACGCTATGGCCACCCCTCCGGCTGGCCCCCTTCTG  
TAGG**ATGG**TAGCACACAACCAGGTGGCAGCCGACAATGCAGTCTCCACAGCAGCAGAGCCCCGACGGCGGCCAGA  
ACCTTCCTCCTCTTCTCCTCCTCGCCCCGCGGCCCCCGCGCGCCCCGCGGCCGTGCCCCGCGGTCCCGGCCCGGC  
CCCCGGCGACACGCACTTCCGCACATTCCGTTTCGCACGCCGATTACCGGCGCATCACGCGCGCCAGCGCGCTCCT  
GGACGCCTGCGGATTCTACTGGGGGCCCTGAGCGTGCACGGGGCGCACGAGCGGCTGCGCGCCGAGCCCGTGGG  
CACCTTCCTGGTGC GCGACAGCCGCCAGCGGAAGTGTCTTTTCGCCCTTAGCGTGAAGATGGCCTCGGGACCCAC  
GAGCATCCGCGTGCACCTTCAGGCCGGCCGCTTTACCTGGATGGCAGCCGCGAGAGCTTCGACTGCCTCTTCGA  
GCTGCTGGAGCACTACGTGGCGGCGCCGCCGCATGCTGGGGGCCCCGCTGCGCCAGCGCCGCGTGGCGCCGCT  
GCAGGAGCTGTGCCGCCAGCGCATCGTGGCCACCGTGGGCCGCGAGAACCTGGCTCGCATCCCCCTCAACCCCGT  
CCTCCGCGACTACCTGAGCTCCTTCCCCTTCCAGATT**TGAC**CGGCAGCGCCCGCCGTGCACGCAGCATTAACTGG  
GATGCCGTGTTATTTTGTTATTACTTGCCTGGAACCATGTGGGTACCCTCCCCGGCCTGGGTGGAGGGAGCGGA  
TGGGTGTAGGGGCGAGGCGCCTCCCGCCCTCGGCTGGAGACGAGGCCGAGACCCCTTCTCACCTCTTGAGGGGG  
TCCTCCCCCTCCTGGTGCTCCCTCTGGGTCCCCCTGGTTGTTGTAGCAGCTTAACTGTATCTGGAGCCAGGACCT  
GAACTCGCACCTCCTACCTCTTCATGTTTACATATACCCAGTATCTTTGCACAAACCAGGGGTGGGGGAGGGTC  
TCTGGCTTTATTTTTCTGCTGTGCAGAAATCCTATTTTATATTTTTTAAAGTCAGTTTAGGTAATAAACTTTATTA  
TGAAAGTTTTTTTTTT

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**FIGURE 690**

MVAHNQVAADNAVSTAAEPRRRPEPSSSSSSSPAAPARPRPCPAVPAPAPGDTHFRTFRSHADYRRITRASALLD  
ACGFYWGPLSVHGAHERLRAEPVGTFLVRDSRQRNCFALSVKMASGPTSIRVHFQAGRFHLDGSRESFDCLFEL  
LEHYVAAPRRMLGAPLRQRRVRPLQELCRQRIVATVGRENLARIPLNPLRDLSSFPFQI

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**FIGURE 691A**

**ATGGCTGGCGGAGCCTGGGGCCGCCTGGCCTGTTACTTGGAGTTCTGAAGAAGGAGGAGCTGAAGGAGTTCCAG**  
CTTCTGCTCGCCAATAAAGCGCACTCCAGGAGCTCTTCGGGTGAGACACCCGCTCAGCCAGAGAAGACGAGTGGC  
ATGGAGGTGGCCTCGTACCTGGTGGCTCAGTATGGGGAGCAGCGGGCCTGGGACCTAGCCCTCCATACCTGGGAG  
CAGATGGGGCTGAGGTCACTGTGCGCCCAAGCCAGGAAGGGGAGGCGCACTCTCCCTCATTCCCTACAGCCCA  
AGTGAACCCACCTGGGGTCTCCAGCCAACCCACCTCCACCGCAGTGCTAATGCCCTGGATCCATGAATTGCCG  
GCGGGGTGCACCCAGGGCTCAGAGAGAAGGGTTTTGAGACAGCTGCCTGACACATCTGGACGCCGCTGGAGAGAA  
ATCTCTGCCTCACTCCTTACCAAGCTCTTCCAAGCTCCCCAGACCATGAGTCTCCAAGCCAGGAGTCACCCAAC  
GCCCCACATCCACAGCAGTGCTGGGGAGCTGGGGATCCCCACCTCAGCCCAGCCTAGCACCCAGAGAGCAGGAG  
GCTCCTGGGACCCAATGGCCTCTGGATGAAACGTCAGGAATTTACTACACAGAAATCAGAGAAAGAGAGAGAGAG  
AAATCAGAGAAAGGCAGGCCCCCATGGGCAGCGGTGGTAGGAACGCCCCACAGGCGCACACCAGCCTACAGCCC  
CACCACCACCCATGGGAGCCTTCTGTGAGAGAGAGCCTCTGTTCCACATGGCCCTGGAAAAATGAGGATTTTAAC  
CAAAAATTACACAGCTGCTACTTCTACAAAGACCTCACCCAGAAGCCAAGATCCCCCTGGTCAAGAGAAGCTGG  
CCTGATTATGTGGAGGAGAATCGAGGACATTTAATTGAGATCAGAGACTTATTTGGCCCAGGCCTGGATACCCAA  
GAACCTCGCATAGTCATACTGCAGGGGGCTGCTGGAATTGGGAAGTCAACACTGGCCAGGCAGGTGAAGGAAGCC  
TGGGGGAGAGGCCAGCTGTATGGGGACCGCTTCAGCATGTCTTCTACTTCAGCTGCAGAGAGCTGGCCCAGTCC  
AAGGTGGTGAGTCTCGCTGAGCTCATCGGAAAAGATGGGACAGCCACTCCGGCTCCCATTAGACAGATCCTGTCT  
AGGCCAGAGCGGCTGCTCTTCATCCTCGATGGTGTAGATGAGCCAGGATGGGTCTTGCAGGAGCCGAGTTCTGAG  
CTCTGTCTGCACTGGAGCCAGCCACAGCCGGCGGATGCACTGCTGGGCAGTTTGCTGGGGAAGAACTATACTTCCC  
GAGGCATCCTTCTGATCACGGCTCGGACCACAGCTCTGCAGAACCTCATTCCTTCTTTGGAGCAGGCACGTTGG  
GTAGAGGTCTGGGGTTCTCTGAGTCCAGCAGGAAGGAATATTTCTACAGATATTTACAGATGAAAGGCAAGCA  
ATTAGAGCCTTTAGGTTGGTCAAATCAAACAAAGAGCTCTGGGCCCTGTGTCTTGTGCCCTGGGTGTCTGGCTG  
GCCTGCACTTGCCTGATGCAGCAGATGAAGCGGAAGGAAAACTCACACTGACTTCCAAGACCACCACAACCCTC  
TGTCTACATTACCTTGCCCAGGCTCTCCAAGCTCAGCCATTGGGACCCCAGCTCAGAGACCTCTGCTCTCTGGCT  
GCTGAGGGCATCTGGCAAAAAAAGACCCTTTTTCAGTCCAGATGACCTCAGGAAGCATGGGTTAGATGGGGCCATC  
ATCTCCACCTTCTTGAAGATGGGTATTCTTCAAGAGCACCCCATCCCTCTGAGCTACAGCTTCATTACCTCTGT  
TTCCAAGAGTTCTTTGCAGCAATGTCCTATGTCTTGGAGGATGAGAAGGGGAGAGGTAAACATTCTAATTGCATC  
ATAGATTTGGAAAAGACGCTAGAAGCATATGGAATACATGGCCTGTTTGGGGCATCAACCACACGTTTCTATTG  
GGCCTGTAAAGTGATGAGGGGGAGAGAGAGATGGAGAACATCTTTCACTGCCGGCTGTCTCAGGGGAGGAACCTG  
ATGCAGTGGGTCCCGTCCCTGCAGCTGCTGCTGCAGCCACACTCTCTGGAGTCCCTCCACTGCTTGTACGAGACT  
CGGAACAAAACGTTCCCTGACACAAGTGATGGCCATTTTCGAAGAAATGGGCATGTGTGTAGAAACAGACATGGAG  
CTCTTAGTGTGCACTTTCTGCATTAAATTACCCGCCACGTGAAGAAGCTTCAGCTGATTGAGGGCAGGCAGCAC  
AGATCAACATGGAGCCCCACCATGGTAGTCTGTTTCAAGTGGGTCCCAGTCACAGATGCCTATTGGCAGATTCTC  
TTCTCCGTCTCAAGGTCACCAGAAACCTGAAGGAGCTGGACCTAAGTGAAACTCGCTGAGCCACTCTGCAGTG  
AAGAGTCTTTGTAAGACCCTGAGACGCCCTCGCTGCCTCCTGGAGACCTGCGGTTGGCTGGCTGTGGCCTCACA  
GCTGAGGACTGCAAGGACCTTGCCTTTGGGCTGAGAGCCAACCAGACCCTGACCGAGCTGGACCTGAGCTTCAAT  
GTGCTCACGGATGCTGGAGCCAAACACCTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGCGACTGCAG  
CTGGTCAGCTGTGGCCTCACGTCTGACTGCTGCCAGGACCTGGCCTCTGTGCTTAGTGCCAGCCCCAGCCTGAAG  
GAGCTAGACCTGCAGCAGAACAAACCTGGATGACGTTGGCGTGCGACTGCTCTGTGAGGGGCTCAGGCATCCTGCC  
TGCAAACTCATACGCTGGGGCTGGACCAGACAACTCTGAGTGATGAGATGAGGCAGGAACCTGAGGGCCCTGGAG  
CAGGAGAAACCTCAGCTGCTCATCTTACAGCAGACGGAAACCAAGTGTGATGACCCCTACTGAGGGCCTGGATACG  
GGAGAGATGAGTAATAGCACATCCTCACTCAAGCGGCAGAGACTCGGATCAGAGAGGGCGGCTTCCCATGTTGCT  
CAGGCTAATCTCAAACTCCTGGACGTGAGCAAGATCTTCCCAATTGCTGAGATTGCAGAGGAAAGCTCCCCAGAG  
GTAGTACCGGTGGAACCTTGTGCGTGCCTTCTCCTGCCTCTCAAGGGGACCTGCATACGAAGCCTTTGGGGACT  
GACGATGACTTCTGGGGCCCCACGGGGCCTGTGGCTACTGAGGTAGTTGACAAAGAAAAGAACTTGTACCGAGTT  
CACTTCCCTGTAGCTGGCTCCTACCGCTGGCCCAACACGGGTCTCTGCTTTGTGATGAGAGAAGCGGTGACCGTT  
GAGATTGAATTCTGTGTGTGGGACCAGTTCTGGGTGAGATCAACCCACAGCACAGCTGGATGGTGGCAGGGCCT  
CTGCTGGACATCAAGGCTGAGCCTGGAGCTGTGGAAGCTGTGCACCTCCCTCACTTTGTGGCTCTCCAAGGGGGC  
CATGTGGACACATCCCTGTTCCAAATGGCCCACTTTAAAGAGGAGGGGATGCTCCTGGAGAAGCCAGCCAGGGTG

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**FIGURE 691B**

GAGCTGCATCACATAGTTCTGGAAAACCCAGCTTCTCCCCCTTGGGAGTCCTCCTGAAAATGATCCATAATGCC  
CTGCGCTTCATTCCCGTCACCTCTGTGGTGTGGCTTTACCACCGCGTCCATCCTGAGGAAGTCACCTTCCACCTC  
TACCTGATCCCAAGTGACTGCTCCATTGGAAGGCCATAGATGATCTAGAAATGAAATTCCAGTTTGTGCGAATC  
CACAAGCCACCCCGCTGACCCCACTTTATATGGGCTGTGTTTACACTGTGTCTGGGTCTGGTTCAGGGATGCTG  
GAAATACTCCCCAAGGAAGTGGAGCTCTGCTATCGAAGCCCTGGAGAAGACCAGCTGTTCTCGGAGTTCTACGTT  
GGCCACTTGGGATCAGGGATCAGGCTGCAAGTGAAAGACAAGAAAGATGAGACTCTGGTGTGGGAGGCCTTGGTG  
AAACCAGGAGATCTCATGCCTGCAACTACTCTGATCCCTCCAGCCCGCATAGCCGTACCTTCACCTCTGGATGCC  
CCGCAGTTGCTGCACTTTGTGGACCAGTATCGAGAGCAGCTGATAGCCCGAGTGACATCGGTGGAGGTTGTCTTG  
GACAACTGCATGGACAGGTGCTGAGCCAGGAGCAGTACGAGAGGGTGCTGGCTGAGAACACGAGGCCAGCCAG  
ATGCGGAAGCTGTTGAGCTTGAGCCAGTCTGGGACCGGAAGTGCAAAGATGGACTCTACCAAGCCCTGAAGGAG  
ACCCATCCTCACCTCATTATGGAAGTCTGGGAGAAGGGCAGCAAAAAGGGACTCCTGCCACTCAGCAGCTGAAGT  
ATCAACACCAGCCCTTGACCCTTGAGTCTGGCTTTGGCTGACCCTTCTTTGGGTCTCAGTTTCTTTCTCTGCAA  
ACAAGTTGCCATCTGGTTTGCCTTCCAGCACTAAAGTAATGGAAGTTTGATGATGCCTTTGCTGGGCATTATGTG  
TCCATGCCAGGGATGCCACAGGGGGCCCCAGTCCAGGTGGCCTAACAGCATCTCAGGGAATGTCCATCTGGAGCT  
GGCAAGACCCCTGCAGACCTCATAGAGCCTCATCTGGTGGCCACAGCAGCCAAGCCTAGAGCCCTCCGGATCCCA  
TCCAGGCGCAAAGAGGAATAGGAGGGACATGGAACCATTTGCCTCTGGCTGTGTACAGGGTGAGCCCCAAAATT  
GGGGTTCAGCGTGGGAGGCCACGTGGATTCTTGGCTTTGTACAGGAAGATCTACAAGAGCAAGCCAACAGAGTAA  
AGTGGAAGGAAGTTTATTCAGAAAATAAAGGAGTATCACAGCTCTTTTGAATTTGTCTAGCAGGCTTTCCAGTT  
TTTACCAGAAAACCCCTATAAATTAAAAATTTTTTACTTAAATTTAAGAATTAATAAATAACAAAAAGAAAAAA  
TGAAAATAAAGGAATAAGAAGTTACCTACTCCAAAAA

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**FIGURE 692**

MAGGAWGRLACYLEFLKKEELKEFQLLLLANKAHSRSSGETPAQPEKTSMEVASYLVAQYGEQRAWDLALHTWE  
QMGLRSLCAQAQEGAGHSPSPFPYSPSEPHLGSPSQPTSTAVLMPWIHELPAGCTQGSERRVLRQLPDTSGRRWRE  
ISASLLYQALPSSPDHESPSQESPNAPTSTAVLGSWGSPQPQSLAPREQEAPGTQWPLDETSGIYYTEIRERERE  
KSEKGRPPWAAVVGTPPQAHTSLQPHHPWEPVRESLCSTWPKNEDFNQKFTQLLLLQRPHPRSQDPLVKRSW  
PDYVEENRGHLIEIRDLFPGGLDTQEPRIVILQGAAGIGKSTLARQVKEAWGRGQLYGDRFQHVYFSCRELAQS  
KVVSLAELIGKDGATATPAPIRQILSRPERLLFILDGVDEPGWVLQEPSSSELCHWSQPQPADALLGSLGKTILP  
EASFLITARTTALQNLIPSLEQARWVEVLGFSESSRKEYFYRYFTDERQAIRAFRLVKSNNKELWALCLVPVWSWL  
ACTCLMQMKRKEKLTLSKTTTTLCLHYLAQALQAQPLGPGQLRDLCSLAAEGIWQKKTLSFDDLRKHGLDGA  
ISTFLKMGILQEHPPLSYFHLCHFQEFFAAMSYVLEDEKGRGKHSNCIIDLEKTLEAYGIHGLFGASTTRFLL  
GLLSDEGEREMENIFHCRLSQGRNLMQWVPSLQLLLQPHSLESLSHCLYETRNTFLTQVMAHFEEMGMCVETDME  
LLVCTFCIKFSRHVKKLQLIEGRQHRSTWSPTMVVLFWRVPTDAYWQILFSVLKVTRNLKELDLSGNSLSHSAV  
KSLCKTLRRPRCLLETTLRLAGCGLTAEDCKDLAFGLRANQTLTELDLSFNVLTDAGAKHLCQRLRQPSCKLQRLQ  
LVSCGLTSDCCQDLASVLSASPSLKELDLQNNLDDVGVRLLCEGLRHPACKLIRLGLDQTTLSDEMRELRALE  
QEKPQLLIFSRRKPSVMTPTTEGLDTGEMSNSTSSLKRQRLGSEARAASHVAQANLKLLDVSKIFPIAEIAEESSPE  
VVPVELLCVPSPASQGD LHTKPLGTDDDFWGPTGPVATEVVDKEKNLYRVHFPVAGSYRWPNTGLCFVMREAVTV  
EIEFCVWDQFLGEINPQHSWMVAGPLLDIKAEPGAVEAVHLPHFVALQGGHVDTSLSFQMAHFKEEGMLLEKPARV  
ELHHIVLENPSFSPLGVLLKMIHNALRFIPVTSVVLLYHRVHPPEEVTFHLYLIPSDCSIRKAIDDLKMFQFVRI  
HKPPPLTPLYMGCRYTVSGSGSMLEILPKELELCYRSPGEDQLFSEFYVGHLSGIRLQVKDKKDETLVWEALV  
KPGDLMPATTLIPPARIAVPSPLDAPQLLHFVDQYREQLIARVTSVEVLDKLHGQVLSQEQYERVLAENTRPSQ  
MRKLFSLSQSWDRKCKDGLYQALKETHPHLIMELWEKSGSKGLPLSS

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**FIGURE 693**

CGCGGCGGCGCGGAGCTCGGGCGGCCGTGGAGGAACTCAGCCTCGGCCGCAGGAGGCGCCGGGAGCGGAGCCGCC  
GGGAGTCGCGCAACAGGTTTCCTTCTCCATCCGTGCGCCACAGGGGACGCGCGCCCTGCCGGGAGAGGGGCTTC  
TCGGTTCGCACTCTCGCTCCCAGTCCAGGCAAAATGAAAGACCGGCTAGCAGAATTCTGGACTTGTCCAAGCAA  
TATGACCAGCAGTTCACGAGACATCCGGGACATTGAGTTTACTCGCCCCACGAGGACATCGTGTTCGAGACGGACCAC  
ATCCTGGAGTCCCTGTACCGAGACATCCGGGACATTGAGGATGAAAACCAGCTGCTGGTGGCCGACGTGAAGCGG  
CTGGGAAAGCAGAACGCCCCGCTTCCTCACGTCCATGCGGCGCCTCAGCAGCATCAAGCGCGACACCAACTCCATC  
GCCAAGGCCTTCAGGGCCCCGGGGCGAGGTCATCCACTGCAAGCTGCGCGCCATGAAGGAGCTGAGCGAGGCGGCT  
GAGGCCCAGCACGGCCCCGACTCGGCAGTGGCGCGCATTCGCGGGCGCAGTACAACGCGCTCACCTCACCTTC  
CAGCGCGCCATGCACGACTACAACCAGGCCGAGATGAAGCAGCGCGACAACGCAAGATCCGCATCCAGCGCCAG  
CTGGAGATCATGGGCAAGGAAGTCTCGGGCGACCAGATCGAGGACATGTTTCGAGCAGGGTAAGTGGGACGTGTTT  
TCCGAGAACTTGCTGGCCGACGTGAAGGGCCGCGGGCCGCCACAACGAGATCGAGAGCCGCCACCGCGAACTGC  
TGCGCCTGGAGAGCCGCCATCCGCGACGTACACGAGCTCTTCTTGAGATGGCGGTGCTGGTGGAGAAGCAGGCC  
GACACCTGAACGTATCGAGCTCAACGTACAAAAGACGGTCGACTACACCGGCCAGGCCAAGGCGCAGGTGCGG  
AAGGCCGTGCAGTACGAGGAGAAGAACCCTGCGGACCCCTCTGCTGCTTCTGCTGTCCCTGCCTCAAGTAGCAG  
GCCGGCCCCGGGCGCCACCGCCCATCCAGACCATGGAGCGCGCTGGGAAGGACGCACCAAAGCCGGGAGCTCTG  
CCCTGCAGGGAGTTGCCCAACCCCTTCCGGAACCTCAGTCTTTAGAAAAGAAACGCCAGGTTCAAGAATTGCAAA  
CCAGCCTGTGCTTGAAAGATGGTTAGTTGATACCGTCCGATGATTCTTCAGTAAAGATAGATTCCACCTCGTG  
CCGAA

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**FIGURE 694**

MKDRLAELLDSLKQYDQQFPDGDDEFDSPHEDIVFETDHILES LYRDIRDIQDENQLLVADV KRLGKQNRFLTS  
MRR LSSI KRDTNSIAKAFRARGEVIHCKLRAMKELSEAAEAQHGPSAVARISRAQYNALTTLTFQAMHDYNQAE  
MKQRDNCKIRIQRQLEIMGKEVSGDQIEDMFEQGKWDVFSENLLADVKG RGPPTTRSRAATANCCAWRAAIRDVH  
ELFLQMAVLVEKQADTLNVIELNVQKTVDYTGQAKAQVRKAVQYEEKNPCRTLCCFCCPCLK

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**FIGURE 695**

AGTTCCCCGACATCAAGTCACGCATTGCCAAGCGGGGGCGCAAGCTGGTGGACTACGACAGTGCCCGGCACCACT  
ACGAGTCCCTTCAAACCTGCCAAAAAGAAGGATGAAGCCAAAATTGCCAAGCCTGTCTCGCTGCTTGAGAAAGCCG  
CCCCCAGTGGTGCCAAGGCAAACCTGCAGGCTCATCTCGTAGCTCAAACCTAACCTGCTCCGAAATCAGGCCGAGG  
AGGAGCTCATCAAAGCCCAGAAGGTGTTTGAGGAGATGAATGTGGATCTGCAGGAGGAGCTGCCGTCCCTGTGGA  
ACAGCCGCGTAGGTTTCTATGTCAACACGTTCCAGAGCATCGCGGGCCTGGAGGAAAACCTTCCACAAGGAGATGA  
GCAAGCTCAACCAGAACCTCAATGATGTGCTGGTCGGCCTGGAGAAGCAACACGGGAGCAACACCTTCACGGTCA  
AGGCCAGCCAGTGAACAACGCGCCTGCAAAAGGGAACAAGAGCCCTTCGCCTCCAGATGGCTCCCCTGCCGCCA  
CCCCGAGATCAGAGTCAACCACGAGCCAGAGCCGGCCGGCGGGGCCACGCCCGGGGCCACCCTCCCCAAGTCCC  
CATCTCAGCTCCGGAAAGGCCACCAGTCCCTCCGCCTCCCAAACACACCCCGTCCAAGGAAGTCAAGCAGGAGC  
AGATCCTCAGCCTGTTTGAGGACACGTTTGTCCCTGAGATCAGCGTGACCACCCCTCCAGTTTGAGGCCCCGG  
GGCCTTCTCGGAGCAGGCCAGTCTGCTGGACCTGGACTTTGACCCCTCCCGCCCGTGACGAGCCCTGTGAAGG  
CACCCACGCCCTCTGGTCAGTCAATTCCATGGGACCTCTGGGAGCCACAGAGAGTCCAGCCGGCAGCCTGCCTT  
CCGGGGAGCCCAGCGCTGCCGAGGGCACCTTTGCTGTGTCTTGGCCAGCCAGACGGCCGAGCCGGGGCCTGCCC  
AACCAGCAGAGGCCTCGGAGGTGGCGGGTGGGACCCAACCTGCGGCTGGAGCCCAGGAGCCAGGGGAGACGGCGG  
CAAGTGAAGCAGCCTCCAGCTCTCTTCCCTGCTGTCTGTTGGTGGAGACCTTCCCAGCAACTGTGAATGGCACCCTGG  
AGGGCGGCAGTGGGGCCGGGCGCTTGGACCTGCCCCCAGGTTTCATGTTCAAGGTACAGGCCCAGCACGACTACA  
CGGCCACTGACACAGACGAGCTGCAGCTCAAGGCTGGTGATGTGGTGTGTTGATCCCCTTCCAGAACCCTGAAG  
AGCAGGATGAAGGCTGGCTCATGGGCGTGAAGGAGAGCGACTGGAACCAGCACAAGGAGCTGGAGAAGTGCCGTG  
GCGTCTTCCCCGAGAACTTCACTGAGAGGGTCCCATGACGGCGGGGCCAGGCAGCCTCCGGGCGTGTGAAGAAC  
ACCTCCTCCCGAAAAATGTGTGGTTCTTTTTTTTGTGTTTGTGTTTTCATCTTTTGAAGAGCAAAGGGAAA  
TCAAGAGGAGACCCCCAGGCAGAGGGGCGTTCTCCCAAAGATTAGGTCGTTTTCCAAAGAGCCGCGTCCCGGCAA  
GTCCGGCGGAATTCACAGTGTTCCTGAAGCTGCTGTGTCTCTAGTTGAGTTTCTGGCGCCCTGCCTGTGCCC  
GCATGTGTGCTGGCCGAGGGCGGGGCTGGGGGCTGCCGAGCCACCATGCTTGCCTGAAGCTTCGGCCGCGCCA  
CCCGGGCAAGGGTCCTCTTTTCTGGCAGCTGCTGTGGGTGGGGCCAGACACCAGCCTAGCCTGGCTCTGCCCC  
GCAGACGGTCTGTGTGCTGTTTGAATAATAATCTTAGTGTTCAAACAAAATGAAACAAAAAAAATGAAAAAA  
AAAAAAAAAAAAAAAAAAAA



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**FIGURE 696**

GCTGGAGGATGTGGCTGCAGAGCCTGCTGCTCTTGGGCACTGTGGCCTGCAGCATCTCTGCACCCGCCCGCTCGC  
 CCAGCCCCAGCACGCAGCCCTGGGAGCATGTGAATGCCATCCAGGAGGCCCGGCGTCTCCTGAACTGAGTAGAG  
 ACACTGCTGCTGAGATGAATGAAACAGTAGAAGTCATCTCAGAAATGTTTGACCTCCAGGAGCCGACCTGCCTAC  
 AGACCCGCCTGGAGCTGTACAAGCAGGGCCTGCGGGGCAGCCTCACCAAGCTCAAGGGCCCCTTGACCATGATGG  
 CCAGCCACTACAAGCAGCACTGCCCTCCAACCCCGGAACTTCCTGTGCAACCCAGACTATCACCTTTGAAAGTT  
 TCAAAGAGAACCTGAAGGACTTTCTGCTTGTTCATCCCCTTTGACTGCTGGGAGCCAGTCCAGGAGTGAGACCGGC  
 CAGATGAGGCTGGCCAAGCCGGGGAGCTGCTCTCTCATGAAACAAGAGCTAGAACTCAGGATGGTCATCTTGGA  
 GGGACCAAGGGGTGGGCCACAGCCATGGTGGGAGTGGCCTGGACCTGCCCTGGGCCACACTGACCCTGATACAGG  
 CATGGCAGAAGAATGGGAATATTTTATACTGACAGAAATCAGTAATATTTATATATTTATATTTTAAAAATATTT  
 ATTTATTTATTTATTTAAGTTCATATTCATATTTATTCAAGATGTTTTACCGTAATAATTATTATTTAAAAATAT  
 GCTTCT

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**FIGURE 697**

MWLQSLLLGLTVACSIAPARSPSPSTQPWEHVNAIQEARRLLNLSRDTAAEMNETVEVISEMFDLQEPTCLQTR  
LELYKQGLRGSLTKLKGPLTMMASHYKQHCPPTPETS CATQTITFESFKENLKDFLLVIPFDCWEPVQE

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**FIGURE 698**

AGTTACGTTTCGGGGCGTGGCCGGGAGCACGTTGGCTCCGCCCCCTGGCGGCTGCCTCAGCGGCGGCGGGCGGCGCA  
GGCTCAGAGCAGACCCCGCCCGGCGAGGAGGAGGGAGGGCCGCCAGTGTGAC**ATG**CTGCTGGAGGAGGTTTCGCG  
CCGGCGACCGGCTGAGTGGGGCGGCGGCCCGGGGCGACGTGCAGGAGGTGCGCCGCCTTCTGCACCGCGAGCTGG  
TGCATCCCGACGCCCTCAACCGCTTCGGCAAGACGGCGCTGCAGGTCATGATGTTTGGCAGCACCGCCATCGCCC  
TGGAGCTGCTGAAGCAAGGTGCCAGCCCCAATGTCCAGGACACCTCCGGTACCAGTCCAGTCCATGACGCAGCCC  
GCACTGGATTCTTGGACACCCTGAAGGTCCTAGTGGAGCACGGGGCTGATGTCAACGTGCCTGATGGCACCGGGG  
CACTTCCAATCCATCTGGCAGTTCAAGAGGGTCACACTGCTGTGGTCAGCTTTCTGGCAGCTGAATCTGATCTCC  
ATCGCAGGGACGCCAGGGGTCTCACACCCTTGGAGCTGGCACTGCAGAGAGGGGCTCAGGACCTCGTGGACATCC  
TGCAGGGCCACATGGTGGCCCCGCTG**TGAT**CTGGGGTCACCCTCTCCAGCAAGAGAACCCCGTGGGGTTATGTAT  
CAGAAGAGAGGGGAAGAAACACTTTCTCTTCTTGTCTCTCTGCCCCACTGCTGCAGTAGGGGAGGAGCACAGTTT  
GTGGCTTATAGGTGTTGGTTTTGGGGGTGTGAGTGTGTGGGGGACGTTTCTCATTGTTTTTCTCACTCCTTTTG  
GTGTGTTGGACAGAGAAGGGCTCCTGCAGGCCACAGCCACCTAAACGGTTCAGTTTCTTCTGCGCCTCAGGCTGC  
TGGGGCCTCAGACGAGACCCAAGGGCAGAGCATTTAAGAGTGAAGTCATGACCTCCAGGGAGCCTAGAAGCTGGT  
GGCCTTGGCCGGCTGTGCTCAGAGACCTGAAGTGTGCACGTTGCTTCAGGCATGGGGGGTGGGGGGAGCGTCCCA  
AATCAATAAGAAGGTAGAATGAGTTATGAGTTATTATATTCTGTTGGAAGCTTGTTTTCCAGTCTCTTGTACAG  
CGTTTTAAAGAAATGGATTCTATTTATTATGCTTTATTGGAAAAAATGTTGTAATAATTTAATGTTTTTACCCA  
TTAAATTAAGACTTGTGCATGATCAAAAAAAAAAAAAAAAAA

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**FIGURE 699**

MLLEEVRA GDRLSGAAARGDVQEVRRLLHREL VHPDALNRFGKTALQVMMFGSTAIALELLKQGASPNVQDTSGT  
SPVHDAARTGF LDTLKV LVEHGADVNVDPGTGALPIHLAVQEGHTAVVSFLAAESDLHRRDARGLTPLALALQRG  
AQDLVDILQGHMVAPL

**FIGURE 700**

GGGGAGATCTTAGCTGAAG**ATG**ACTGACAGTGTTATTTATTCCATGTTAGAGTTGCCTACGGCAACCCAAGCCCA  
GAATGACTATGGACCACAGCAAAAATCTTCCTCTTCCAGGCCTTCTTGTTCTTGCCTTGTGGCAATAGCTTTGGG  
GCTTCTGACTGCAGTTCTTCTGAGTGIGCTGCTATACCAGTGGATCCTGTGCCAGGGCTCCAACACTCCACTTG  
TGCCAGCTGTCCTAGCTGCCCAGACCGCTGGATGAAATATGGTAACCATTGTTATTATTTCTCAGTGGAGGAAAA  
GGACTGGAATTCTAGTCTGGAATTCTGCCTAGCCAGAGACTCACACCTCCTTGTGATAACGGACAATCAGGAAAT  
GAGCCTGCTCCAAGTTTTCTCAGTGAGGCCTTTTGCTGGATTGGTCTGAGGAACAATTCTGGCTGGAGGTGGGA  
AGATGGATCACCTCTAAACTTCTCAAGGATTTCTTCTAATAGCTTTGTGCAGACATGCGGTGCCATCAACAAAAA  
TGGTCTTCAAGCCTCAAGCTGTGAAGTTCCTTTACACTGGGTGTGTAAGAAGTGCCCTTTGCAGATCAAGCTTT  
ATTCT**TGA**AGAATAAACCTAGCTGGCATGCTGGTGTGTACCTGTAGTCCTAGCTATTTGGGAAGCTGAGGTGGGAG  
GGTCGCTTGAGCCAGGAGTTTGAGGCTGCAGTGAGCTATGATTGTGCCACTGTACTCCAGCCTGGGAGATAGAG  
CAAGACTCCATCTCTAAAAAAAAAAAAAAAAATGCTAATGTGAGAATATAAATTGTGGGAAATGAGTGAGGGCAAGG  
TGGTACTTCCTCCTTCTGAGCTCTTCACACGTAATGCAAAAACCCGGTCTTAACCTGATTTTGTTTTTTTTCTGAG  
TATGCATATATGTGGTTGAATGAACCAATGTGTGATTGTATCTTTTCCATTATGTGACTGTTTGACCTGCATATT  
AATTTCAAGATAGCAGTCAATTCGATAAGGCATTTTCATAGAGGAAAGTTTACAGAAACAGTTTATGTGGTTGGA  
TCACCAAATTATCTTAGGTACTAAGGCCTCAAAAATAAGAAAACTTTATTATTTCTCCTCAGTAGAGTTTGGAC  
ATACATAAGGAGAGAAGGTACAGTGATGAAGGAGACCATAATTCTGTAGTGTTGATGATCCTGGATTATAATCTT  
TTTCTCTTTATCTTTCATAGTTTTTTTTAAAAACATGGACTGTATCTTATCTACCACTATATCCCAAATACCTAAG  
ATAGTGCTTACGTTCACTGACTATTAAATAAATAAATGGATGAATTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 701**

MTDSVIYSMLELPTATQAQNDYGPQQKSSSSRPSCSCLVAIALGLLTAVLLSVLLYQWILCQGSNYSTCASCPS  
PDRWMKYGNHCYYFSVEEKDWNSSEFCLARDSHLLVITDNQEMSLQVFLSEAFCWIGLRNNSGWRWEDGSPLN  
FSRISSNSFVQTCGAINKNGLQASSCEVPLHWVCKKCPFADQALF

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**FIGURE 702**

TGAAGATCAGCTATTAGAAGAGAAAGATCAGTTAAGTCCTTTGGACCTGATCAGCTTGATACAAGAACTACTGAT  
 TTCAACTTCTTTGGCTTAATTCTCTCGGAAACGATGAAATATACAAGTTATATCTTGGCTTTTCAGCTCTGCATC  
 GTTTTGGGTTCTCTTGGCTGTTACTGCCAGGACCCATATGTAAAAGAAGCAGAAAAACCTTAAGAAATATTTTAAT  
 GCAGGTCATTGAGATGTAGCGGATAATGGAACCTTTTTCTTAGGCATTTTGAAGAATTGGAAAGAGGAGAGTGAC  
 AGAAAAATAATGCAGAGCCAAATTGTCTCCTTTTACTTCAAACTTTTTAAAACTTTAAAGATGACCAGAGCATC  
 CAAAAGAGTGTGGAGACCATCAAGGAAGACATGAATGTCAAGTTTTTCAATAGCAACAAAAAGAAACGAGATGAC  
 TTCGAAAAGCTGACTAATTATTCGGTAACTGACTTGAATGTCCAACGCAAAGCAATACATGAACTCATCCAAGTG  
 ATGGCTGAACTGTCGCCAGCAGCTAAAACAGGGAAGCGAAAAAGGAGTCAGATGCTGTTTCAAGGTCGAAGAGCA  
 TCCCAGTAAATGGTTGTCCTGCCTGCAATATTTGAATTTTAAATCTAAATCTATTTATTAATATTTAACATTATTT  
 ATATGGGGAATATATTTTTAGACTCATCAATCAAATAAGTATTTATAATAGCAACTTTTGTGTAATGAAAATGAA  
 TATCTATTAATATATGTATTATTTATAATTCCTATATCTGTGACTGTCTCACTTAATCCTTTGTTTTCTGACTA  
 ATTAGGCAAGGCTATGTGATTACAAGGCTTTATCTCAGGGGCCAACTAGGCAGCCAACCTAAGCAAGATCCCATG  
 GGTTGTGTGTTTATTTCACTTGATGATACAATGAACACTTATAAGTGAAGTGATACTATCCAGTTACTGCCGGTT  
 TGAAAATATGCCTGCAATCTGAGCCAGTGCTTTAATGGCATGTGACACAGAACTTGAATGTGTCAGGTGACCCTG  
 ATGAAAACATAGCATCTCAGGAGATTTTCATGCCTGGTGCTTCCAAATATTGTTGACAACCTGTGACTGTACCCAAA  
 TGGAAAGTAACTCATTGTGTTAAAATTATCAATATCTAATATATATGAATAAAGTGTAAGTTCACAAC

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**FIGURE 703**

MKYTSYILAFQLCIVLGSLGCYCQDPYVKEAENLKKYFNAGHSDVADNGTLFLGILKNWKEESDRKIMQSQIVSF  
YFKLFKNFKDDQSIQKSVETIKEDMNVKFFNSNKKKRDDFEKLTNYSVTDLNVQRKAIHELIQVMAELSPAAGTG  
KKKRSQMLFQGRRASQ



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**FIGURE 704**

GTTTGAGCAGCATTGTTAGAGCCTGTGGAAAACACTTTACAACGTGTAACTGTCTTCATCTTTACAGAGGAATA  
GTCTACAAAGGAAGACTTGTAACCTGGAGAAGAGACCTGTCATTTACTCCATCCTTTATAGTGATGCTACAGGAC  
GAAGAGGAATGATAAAAAACATTGGCGAGCAACTCAATAAAGCGTATGAAGCCTTCCGGCAGGCATGCATGGATA  
GAGATTCTGCAGTAAAAGAATTACAGCAAAAGACTGAGAAGTATGAGCAGAGAATACGTGAACAACAGGAACAGC  
TGTCACCTCAACAGACTATTATTGACAAGCTAAAATCTCAGTTACTTCTTGTGAATTCCACTCAAGATAACAATT  
ATGGCTGTGTTCCCTCTGCTTGAAGACAGTGAACAAGAAAGAATAATTTGACTCTTGATCAGCCACAAGATAAAG  
TGATTTTCAGGAATAGCAAGAGAAAACTACCAAAGGTAAGAAGACAAGAGGTTTCTTCTCCTAGAAAAGAACTT  
CAGCAAGGAGTCTTGGCAGTCCTTTGCTCCATGAAAGGGGTAATATAGAGAAGACTTTCTGGGATCTGAAAGAAG  
AATTTCATAAAAATATGCATGCTAGCAAAAGCACAGAAAGACCACTTAAGCAAACTTAATATACCAGACACTGCAA  
CTGAAACACAGTGTCTGTGTCCTATACAGTGTACGGATAAAACAGATAAACAAGAAGCGCTGTTTAAAGCCTCAGG  
CTAAAGATGATATAAATAGAGGTGCACCATCCATCACATCTGTACACCAAGAGGACTGTGCAGAGATGAGGAAG  
ACACCTCTTTTGAATCAGTTTCTAAATTCAATGTCAAGTTTCCACCTATGGACAATGACTCAACTTTCTTACATA  
GCACTCCAGAGAGACCCGGCATCCTTAGTCCTGCCACGTCTGAGGCAGTGTGCCAAGAGAAATTTAATATGGAGT  
TCAGAGACAACCCAGGGAACCTTTGTTAAAACAGAAAGAACTTTATTTGAAATTCAGGGAATTGACCCCATAGCTT  
CAGCTATACAAAACCTTAAACAACCTGACAAAACAAAGCCCTCAAATCTCGTAAACACTTGTATCAGGACAACCTC  
TGGATAGAGCTGCGTGTTTTGCCACCTGGAGACCATAATGCATTATATGTAAATAGCTTCCCACTTCTGGACCCAT  
CTGATGCACCTTTTCCCTCACTCGATTCCCCGGGAAAAGCAATCCGAGGACCACAGCAGCCCATTTGGAAGCCCT  
TTCCTAATCAAGACAGTGAAGTGGTACTAAGTGGCACAGACTCAGAACTGCATATACCTCGAGTATGTGAAT  
TCTGTCAAGCAGTTTTCCACCATCCATTACATCCAGGGGGGATTTCTTTCGGCATCTTAATTCACACTTCAATG  
GAGAGACTTAAGACACATTTGAAAACAGACATATCAAGTTCTATGTGATGATTTTGGGTTTTTAATACTATAAAT  
ACTTGATTGTAACTAAATTCAAGATCATTATAGGAAAATCTAGTTTCACAGCTATTTGAATTTTTTCTGGAT  
TTACTATATAACTCTTATTTTTTAAAGATCATTCTGTTCTTTCAAGGAGAAATAAGCCTAAAAGAAGAAAAACA  
AAAAAAATTCTGTATAAACTGTAATCCTTTGTATTGTTTACAGTGCTATTACTATAATTCAAATATATGTA  
TGTGACTTAGAGTTATATAATCATAATTTATGTTTATTTCAAATATCTAAGTTTATTGCTTGGATTTCTAGTGAG  
AGCTGTTGAATTTGGTGAATGTCAAATGTTTCTAGGGTTTTTTTAGTTTGTTTTTATTGAAAAATTTAATTATTTA  
TGCTATAGGTGATATTCTCTTTGAATAAACCTATAATAGAAAATAGCAGACAACATAAACATCTTTGTAAATATC  
AAACCTAATACATTTCTTGTCCAGTGATAAAACAACCTGGTAGAATTATTTAAACACTTTAGATTTTTAAATAATA  
TACATGGCTTTAATTTTTACTGTGTGTATAGCTACATGATGAAATTAATTAATATTAAGAGGT

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**FIGURE 705**

MDKNIGEQLNKAYEAFRQACMDRDSAVKELQQKTENYEQRIREQQEQLSLQQTIIDKLKSQLLLNSTQDNNYGC  
VPLLEDSETRKNNLTLDQPQDKVISGIAREKLPKVDIASAESSI

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**FIGURE 706**

GTCTACACCAGCGGTGTCGCTGCCCCGAAAGTGAGAGAAGGCTGATATTGCTAGCTGGAATCCAGGCCTGGGTGCT  
GCATGGTGGCGCCCCCTCCCCGTGACCACCGCTGCGTTTTCTCGGGCTTTCTCTGAGGAGCTGCTCTTGTGCTGTT  
TGGCCCCCTGCCTACTCGGAATGGAACAAAGCATCGAACAAACAAGTGAATCCTGTTGTGCCTATCACCTGTTGA  
AGTTGCCAGTCTTAAGGAAGGAATCAATTTCTTTTCGCAATAAGAGCACTGGCAAAGACTACGTCTTGTACAAGAA  
TAAGAGCCGACTGAGGGCATGCAAGAATATGTGCAAGCACCAAGGAGGCCTGTTTCATAAAAAGATATCGAGGATTT  
AGCCGGAAGTTGTTGAAATGATGAAAACAACGGACTTTTGCTTTTAGAACTGAATCCTCCTAACCCCTGGGACT  
TACAGCCCAGATCTCCTGAAGAGTTGGCTTTTGGAGAAGTACAGATAACATATCTCACTCATGCCTGCATGGACC  
TCAAGTTAGGAGACAAGAGAATGGTGTGTTGACCCCTGGTTAATCGGTCCTGCTTTTGCCCGTGGATGGTGGTTGC  
TCCATGAGCCTCCATCTGATTGGCTGGAGAGGCTGTGCCAGGCAGACCTCATTACATCAGTCATCTGCACTCAG  
ACCACCTGAGTTACCCACACTGAAAAAGCTTGCTGGGAGAAGACCAGATATTCCTCATTATGTTGGAAACACAG  
AAAGGCCTGTATTTTGAATCTGAATCAGAGCGGTGTCCAGTTGACTAATATCAATGTCGTGCCATTTGGAATAT  
GGCAGCAGGTGGACAAAAATCTTCGATTATGATCTTGATGGACGGTGTTCATCCTGAGATGGACACTTGCATTA  
TTGTGGAGTACAAAAGTTCATAAAATACTCAATATAGTAGACTGCACCAGACCCAATGGGGGAAGGCTGCCTATGA  
AGGTTGCTCTAATGATGAGTGATTTTGCTGGAGGAGCATCAGGCTTTCCAATGACTTTCAGTGGTGGAAAATTTA  
CGGAGGAATGGAAAAGCCCAATTCATTAAAACAGAAAGGAAGAAGCTCCTGAACTACAAGGCTCGGCTGGTGAAGA  
ACCTGCAACCCCGAATTTATTGTCCCTTTGCTGGGTATTTTGTGGAATCTCACCCATCAGACAAGTACATCAAGG  
AAACAAACACCAAAAAATGACCCAAATGAACTCAACAATCTTATCAAGAAAAACTCTGATGTGATAACATGGACCC  
CTCGACCGGGAGCCACCCCTTGATCTGGGAAGAATGCTGAAGGATCGAACAGACAGCAAGGGCATCATAGAGCCTC  
CAGAGGGGACAAAAATTTACAAGGATTCCTGGGATTTTGAACCTTATTTGGAATCTTGAATGCTGCTCTAGGAG  
ATGAAATATTTCTTCACTCATCCTGGATAAAAGAATACTTCACTTGGGCTGGATTTAAAGATTACAACCTTGTGG  
TCAGGATGATTGAGACAGATGAGGACTTCAATCCTTTTCTGGAGGATATGACTATTTGGTTGACTTTTTAGATT  
TATCCTTCCCAAAAGAAAGACCACAACGAGAATCCTTATGAGGAAATCCATAGCCGGGTGGATGTCATCAGAC  
ACGTGGTGAAGAATGGTCTACTCTGGGATGAGTTGTATATAGGATTCCAAACACGGCTCCAGCGGGATCCTGACA  
TATACCATCACCTGTTTTGGAATCATTTTCAAATAAACTCCCCCTCACACCACCAACTGGAAGTCATTCTGTA  
TGTGCTGTGAGCAGAATGGGCCTGCGATTTTGCAAGAATGCAAAACCACATGAAAATTTCAAGAATTCATGATC  
TGATGCAAAAATAAAAAATTTATCATTACATCTTGAACCCAGGAAGCTTACAGCAAAGAGACTATGCTTTATGACGT  
CAGCAATAGATAATTCCACGTTGCCTTTGTGATTTGTATATATAGCTTACATTTGTGGATCACTACATAGCCAGA  
TTCAAAAAATATTTTACTTGTTCATCCACAGTTCTCTACAGAAAGAACCAATGAACCAATAGGAACAAATTCTC  
TGTGGAACAAAGCATAGCTGTAGTAGATACGAATCCAATCACAGAGGAAACAGGAAGAGAAAAACATCCAAGA  
CTACAGTGAAAACCTGGAATGGTCTGTTTTCGTGATATTCGTATGATTAAGATGCAATTTTTTCTTAGGAAAAT  
GTGATTGTTAACTAGCATTCTGTTTTACATGTTGACATTTCTAACACACACACCACTGATTTGAACTTCAAATTT  
TATTTTCTGATTATATATGCTAGGCTGATTCTGAAGATACAAGAATTCAATGGTGGAAATTTGTCTCCTGAAATT  
TCTAGATTCATAATTAGAAGTGTTTATTACCAACTTCTCACTTAGATTAAACATCAGTGATGTTTGATTATTCTGG  
TTAACCGCTCACATGCATAACAATAATGCTAGAAATTCAGGAATTATAATTTTGTGATTTATACTGTGTGGTAAA  
TTATTCAGTTCTCACTGCAATAAATAATAATGTATATCAATGTAATGTAGGTCAGAATGTCTATGGTGAGCAAT  
AAAAGATTATTTTAAATATGAAAAAAAAAAAAAAAAA

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**FIGURE 707**

MDENNGLLLLLELNPPNPWDLQPRSPEELAFGEVQITYLTHACMDLKLGDKRMVFDPWLIGPAFARGWLLHEPPS  
DWLERLCQADLIYISHLHSDHLSYPTLKKLAGRRPDIPYVGNTERPVFWNLNQSGVQLTNINVVPPFGIWQQVDK  
NLRFMILMDGVHPMDTCIIVEYKGHKILNIVDCTRPNGGRLPMKVALMMSDFAGGASGFPMTFSGGKFTTEWKA  
QFIKTERKKLLNYKARLVKNLQPRIYCPFAGYFVESHPSDKYIKETNTKNDPNELNNLIKKNSDVITWTPRPGAT  
LDLGRMLKDRTDSKGIIEPPEGTKIYKDSWDFEPYLEILNAALGDEIFLHSSWIKEYFTWAGFKDYNLVVRMIET  
DEDFNFPFGGYDYLVDFLDLSFPKERPQREHPYEEIHSRVDVIRHVVKNGLLWDELYIGFQTRLQRDPDIYHHLF  
WNHFQIKLPLTPPNWKSFLMCCEQNGPAILQECKTT

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**FIGURE 708**

CCGGGGGGCATGAGGGTCCGAGACTTGTTCTTCTGTCCCTTCCAAGACCCGGCGACAGGAGGCATGAGGGGCCCC  
CGGCCGAAATGACAGTGCTGGCGCCAGCCTGGAGCCCAACAACCTATCTCCTCCTGCTGCTGCTGCTGAGCTCGG  
GACTCAGTGGGACCCAGGACTGCTCCTTCCAACACAGCCCCATCTCCTCCGACTTCGCTGTCAAAATCCGTGAGC  
TGTCTGACTACCTGCTTCAAGATTACCCAGTCACCGTGGCCTCCAACCTGCAGGACGAGGAGCTCTGCGGGGGCC  
TCTGGCGGCTGGTCCTGGCACAGCGCTGGATGGAGCGGCTCAAGACTGTCGCTGGGTCCAAGATGCAAGGCTTGC  
TGGAGCGCGTGAACACGGAGATACACTTTGTCACCAAATGTGCCTTTCAGCCCCCCCCCAGCTGTCTTCGCTTCG  
TCCAGACCAACATCTCCCGCCTCCTGCAGGAGACCTCCGAGCAGCTGGTGGCGCTGAAGCCCTGGATCACTCGCC  
AGAACTTCTCCCGGTGCCTGGAGCTGCAGTGTGAGCCGACTCCTCAACCCTGCCACCCCATGGAGTCCCGGC  
CCCTGGAGGCCACAGCCCCGACAGCCCCGAGCCCCCTCTGCTCCTCCTACTGCTGCTGCCCGTGGGCCTCCTGC  
TGCTGGCCGCTGCCTGGTGCCTGCACTGGCAGAGGACGCGGCGGAGGACACCCCGCCCTGGGGAGCAGGTGCCCC  
CCGTCCCCAGTCCCCAGGACCTGCTGCTTGTGGAGCACTGACCTGGCCAAGGCCTCATCCTGCGGAGCCTTAAAC  
AACGCAGTGAGACAGACATCTATCATCCCATTTTACAGGGGAGGATACTGAGGCACACAGAGGGGAGTCACCAGC  
CAGAGGATGTATAGCCTGGACACAGAGGAAGTTGGCTAGAGGCCGGTCCCTTCCTTGGGCCCCCTCTCATTCCCTC  
CCCAGAATGGAGGCAACGCCAGAATCCAGCACCGGCCCATTTACCCAACCTCTGAACAAAGCCCTTGCCCCCATG  
AAATTGTTTATAAATCATCCTTTTCTCCCA

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**FIGURE 709**

MTVLAPAWSPTTYLLLLLLLSSGLSGTQDCSFQHSPISSDFAVKIRELSDYLLQDYPVTVASNLQDEELCGGLWR  
LVLAQRWMERLKTVAGSKMQLLERVNTEIHFVTKCAFQPPPSCLRFVQTNISRLLQETSEQLVALKPWITRQNF  
SRCLELQCQPDSSSTLPPPWSRPLEATAPTAPQPPLLLLLLLLPVGLLLAAAWCLHWQTRRRTPRPGEQVPPVP  
SPQDLLVEH

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**FIGURE 710**

GCGCCTGGCCTATTGAAGGTTTTTAATCTTCAGAGTTTCGACTTTATCAACAACACTTAGAAGCCACCAAAGAAT  
TGCAGATGGATCCTAATAGAATATCAGAAGATGGCACTCACTGCATTTATAGAATTTTGAGACTCCATGAAAATG  
CAGATTTTCAAGACACAACCTCTGGAGAGTCAAGATACAAAATTAATACCTGATTCATGTAGGAGAATTAAACAGG  
CCTTTCAAGGAGCTGTGCAAAAGGAATTACAACATATCGTTGGATCACAGCACATCAGAGCAGAGAAAGCGATGG  
TGGATGGCTCATGGTTAGATCTGGCCAAGAGGAGCAAGCTTGAAGCTCAGCCTTTTGCTCATCTCACTATTAATG  
CCACCGACATCCCATCTGGTTCCCATAAAGTGAGTCTGTCTCTTGGTACCATGATCGGGGTGGGCCAAGATCT  
CCAACATGACTTTTAGCAATGGAAAACATAAGTTAATCAGGATGGCTTTTATTACCTGTATGCCAACATTTGCT  
TTCGACATCATGAACTTCAGGAGACCTAGCTACAGAGTATCTTCAACTAATGGTGTACGTCACTAAAACCAGCA  
TCAAAATCCCAAGTTCTCATACCCTGATGAAAGGAGGAAGCACCAAGTATTGGTCAGGGAATTCTGAATTCCATT  
TTTATTCCATAAACGTTGGTGGATTTTTTAAGTTACGGTCTGGAGAGGAAATCAGCATCGAGGTCTCCAACCCCT  
CCTTACTGGATCCGGATCAGGATGCAACATACTTTGGGGCTTTTAAAGTTCGAGATATAGATTGAGCCCCAGTTT  
TTGGAGTGTTATGTATTTCTGGATGTTTGGAAACATTTTTTAAACAAGCCAAGAAAGATGTATATAGGTGTGT  
GAGACTACTAAGAGGCATGGCCCCAACGGTACACGACTCAGTATCCATGCTCTTGACCTTGTAGAGAACACGCGT  
ATTTACAGCCAGTGGGAGATGTTAGACTCATGGTGTGTTACACAATGGTTTTTAAATTTTGTAATGAATTCCTAG  
AATTAAACCAGATTGGAGCAATTACGGGTTGACCTTATGAGAACTGCATGTGGGCTATGGGAGGGGTGGTCCC  
TGGTCATGTGCCCCCTTCGCAGCTGAAGTGGAGAGGGTGTCTATCTAGCGCAATTGAAGGATCATCTGAAGGGGCAA  
ATTCTTTTGAATTGTTACATCATGCTGGAACCTGCAAAAAATACTTTTTCTAATGAGGAGAGAAAATATATGTAT  
TTTTATATAATATCTAAAGTTATATTTTCAGATGTAATGTTTTCTTTGCAAAGTATTGTAAATTATATTTGTGCTA  
TAGTATTTGATTCAAAATATTTAAAAATGTCTTGCTGTTGACATATTTAATGTTTTAAATGTACAGACATATTTA  
ACTGGTGCACTTTGTAATTTCCCTGGGGAAAACCTTGCAGCTAAGGAGGGGAAAAAAATGTTGTTTCCTAATATCA  
AATGCAGTATATTTCTTCGTTCTTTTTAAGTTAATAGATTTTTTCAGACTTGTCAAGCCTGTGCAAAAAAATTAA  
AATGGATGCCTTGAATAATAAGCAGGATGTTGGCCACCAGGTGCCTTTCAAATTTAGAACTAATTGACTTTAGA  
AAGCTGACATTGCCAAAAAGGATACATAATGGGCCACTGAAATCTGTCAAGAGTAGTTATATAATTGTTGAACAG  
GTGTTTTTCCACAAGTGCCGCAAATTGTACCTTTTTTGTTTTTCAAAATAGAAAAGTTATTAGTGGTTTTATCAG  
CAAAAAAGTCCAATTTTAATTTAGTAAATGTTATCTTATACTGTACAATAAAAAACATTGCCTTTGAATGTTAATT  
TTTTGGTACAAAAATAAATTTATATGAAAACCTGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 711**

MDPNRI SEDGTHCIYRILRLHENADFQDTTLESQDTKLIPDSCRRIKQAFQGAVQKELQHIVGSQHIRAEKAMVD  
GSWLDLAKRSKLEAQPFAHLTINATDIPSGSHKVSLSWYHDRGWAKISNMTFSNGKLIVNQDGFYYLYANICFR  
HHETSGDLATEYLQLMVYVTKTSIKIPSSHTLMKGGSTKYWSGNSEFHFYSINVGGFFKLRSGEEISIEVSNPSL  
LDPDQDATYFGAFKVRDID



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**FIGURE 712**

CTGGGGGTCCGTTCCCCAACTTCCTCGGCGCTCCGGAAGTCTCCGCCGACCCCTCCTTTGGATATTCTT  
CGTGTCTCCGATTCTGAGAGAGGGGGAAGACGGTGGGGCCTCCCCACCTGCCCCGCAGAAGATGCAGTTCTTTGG  
CCGCCTGGTCAATACCTTCAGTGGCGTACCAACTTGTTCTCTAACCATTCCGGGTGAAGGAGGTGGCTGTGGC  
CGACTACACCTCGAGTGACCGAGTTCGGGAGGAAGGGCAGCTGATTCTGTTCCAGAACACTCCCAACCGCACCTG  
GGACTGCGTCTGGTCAACCCAGGAACCTCACAGAGTGGATTCCGACTCTTCCAGCTGGAGTTGGAGGCTGACGC  
CCTAGTGAATTTCCATCAGTATTCTTCCCAGCTGCTACCCTTCTATGAGAGCTCCCCCTCAGGTCCTGCACACTGA  
GGTCTTGACAGCACTGACCGACCTCATCCGTAACCACCCAGCTGGTCAGTGGCCACCTGGCTGTGGAGCTAGG  
GATCCGCGAGTGCTTCCATCACAGCCGTATCATCAGCTGTGCCAATTGCGCGGAGAACGAGGAGGGCTGCACACC  
CCTGCACCTGGCCTGCCGCAAGGGTGATGGGGAGATCCTGGTGGAGCTGGTGCAGTACTGCCACACTCAGATGGA  
TGTCACCGACTACAAGGGAGAGACCGTCTTCCATTATGCTGTCCAGGGTGACAATTCTCAGGTGCTGCAGCTCCT  
TGGAAGGAACGCAGTGGCTGGCCTGAACCAGGTGAATAACCAAGGGCTGACCCCGCTGCACCTGGCCTGCCAGCT  
GGGGAAGCAGGAGATGGTCCGCGTGCTGCTGTGTGAATGCTCGGTGCAACATCATGGGCCCCAACGGCTACCC  
CATCCACTCGGCCATGAAGTTCTCTCAGAAGGGGTGTGCGGAGATGATCATCAGCATGGACAGCAGCCAGATCCA  
CAGCAAAGACCCCCGTTACGGAGCCAGCCCCCTCCACTGGGCCAAGAACGCAGAGATGGCCCGCATGCTGTGAA  
ACGGGGCTGCAACGTGAACAGCACCAGCTCCGCGGGGAACACGGCCCTGCACGTGGCGGTGATGCGCAACCGCTT  
CGACTGTGCCATAGTGCTGCTGACCCACGGGGCCAACGCGGATGCCCCGCGAGAGCACGGCAACACCCCGCTGCA  
CCTGGCCATGTGAAAAGACAACGTGGAGATGATCAAGGCCCTCATCGTGTTCGGAGCAGAAGTGACACCCCGAA  
TGACTTTGGGGAGACTCCTACATTCTAGCCTCCAAAATCGGCAGACTTGTACCAGGAAGGCGATCTTGACTCT  
GCTGAGAACCGTGGGGGCCGAATACTGCTTCCCACCCATCCACGGGTCCCCGCGGAGCAGGGCTCTGCAGCGCC  
ACATCATCCCTTCTCCCTGGAAAGAGCTCAGCCCCACCGATCAGCCTAAACAACCTAGAACTACAGGATCTCAT  
GCACATCTCACGGGCCCCGAAGCCAGCGTTTATCTGGGCTCCATGAGGGACGAGAAGCGGACCCACGACCACCT  
GCTGTGCCTGGATGGAGGAGGAGTGAAAGGCCTCATCATCATCCAGCTCCTCATCGCCATCGAGAAGGCCTCGGG  
TGTGGCCACCAAGGACCTGTTTGACTGGGTGGCGGGCACCAGCACTGGAGGCATCCTGGCCCTGGCCATTCTGCA  
CAGTAAGTCCATGGCCTACATGCGCGGCATGTACTTTTCGATGAAGGATGAGGTGTTCCGGGGCTCCAGGCCCTA  
CGAGTCGGGGCCCCCTGGAGGAGTTTCTGAAGCGGGAGTTTGGGGAGCACACCAAGATGACGGACGTGAGGAAACC  
CAAGGTGATGCTGACAGGGACACTGTCTGACCGGCAGCCGGCTGAACTCCACCTCTTCCGGAACCTACGATGCTCC  
AGAAACTGTCCGGGAGCCTCGTTTCAACCAGAACGTTAACTCAGGCCTCCAGCTCAGCCCTCAGACCAGCTGGT  
GTGGCGGGCGGCCCGAAGCAGCGGGCAGCTCCTACTTACTTCCGACCCAATGGGCGCTTCTGGACGGTGGGCT  
GCTGGCCAACAACCCACGCTGGATGCCATGACCGAGATCCATGAGTACAATCAGGACCTGATCCGCAAGGGTCA  
GGCCAACAAGGTGAAGAACTCTCCATCGTTGTCTCCCTGGGGACAGGGAGGTCCCCACAAGTGCCTGTGACCTG  
TGTGGATGTCTTCCGTCCCAGCAACCCCTGGGAGCTGGCCAAGACTGTTTTTGGGGCCAAGGAACTGGGCAAGAT  
GGTGGTGGACTGTTGCACGGATCCAGACGGGCGGGCTGTGGACCGGGCACGGGCTGGTGCAGATGGTGGCAT  
CCAGTACTTCAGATTGAACCCACGCTGGGGACGGACATCATGCTGGATGAGGTGAGTGCACAGTGTGGTCAA  
CGCCCTCTGGGAGACCGAGGTCTACATCTATGAGCACCAGGAGTCCAGAAGCTCATCCACCTGCTGCTCTC  
ACCC**TGA**GGGTCCCCAGCCTCTACCGGCCCCAGCTGACCTCGTCCATTGAGCCCTGCCAGGCCAAGCCAGCC  
ACTGCCCTCCCGGGCAGATCTGGGCCCAGGCACCTCTGAGTCCATAGACCAGGCCTGGGAGAATGCCAAGCTGCC  
TGCCCGAGGCTGGTCTGAAGGCCTGTCTCCACTAACCCCCCTTCCATCACTTTCTGTGATGCCAGGXTGGGA  
AAGTCTAGAGCCCCCTTTGGCCCCCTTCCCTGACTGTCAAGGACAACCTGACTCCCCCATCAGCTCAAACATTAAG  
GGTACCCGGGCACAACCGTACCGTGCCCCCAGCCCCAGCCTACCTGAGGGCCTGCCGGGCTGCCTTTGCCCA  
GCCCCCAGCAAGGGCATTCCCAGGCTTCTGGTGGGTGCAGCCCAATCCCTCTGCCCTCTGCTCCGTTCCCTGGG  
GGCTGGGACTAAAGAAATGGGTGTCCCCCACCACATCAGCTGGGAAAGCCAGGCCGAGGAGTGGGATGCCCGT  
TGGACTTTGCCCTCACACTGGCCCAGCCCCCTCACACTGCCCCACCCGAGAACCCCTCAGCTCTCAAAGGTCACT  
CCTGGGAGTTTCTTCTTCCCAATGGAAGTGGCTTAAGAGCCAAAACCTGAAATAAATCATTGGATTCAAGTTCAA  
AAAAAAAAAAAAAA

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**FIGURE 713**

MQFFGRLVNTFSGVTNLF SNPF RVKEVAVADYTSSDRVREEGQLILFQNTPNRTWDCVLVNPRNSQSGFRLFQLE  
LEADALVNFHQYSSQLLPFYESSPQVLHTEVLQHLTDLIRNHPSWSVAHLAVELGIRECFHHSRIISCANCAENE  
EGCTPLHLACRKGDEILVELVQYCHTQMDVTDYKGETVFHYAVQGDNSQVLQLLGRNAVAGLNQVNNQGLTPLH  
LACQLGKQEMVRVLLLCNARC NIMGPNGYPIHSAMKFSQKGCAEMII SMDSSQIHSKDPY GASPLHWAKNAEMA  
RMLLKRCNVNSTSSAGNTALHVAVMRNRFDC AIVLLTHGANADARGEHGNTPLHLAMSKDNVEMIKALIVFGAE  
VDTPNDFGETPTFLASKIGRLVTRKAILTLLRTVGAEYCFPP IHGVP AEQGS AAPHHPFSLERAQPPPISLNNLE  
LQDLMHISRARKPAFILGSMRDEKRTHDHLCLDGGGVKGLII IQLLIAIEKASGVATKDLFDWVAGTSTGGILA  
LAILHKSMA YMRGMYFRMKDEVFRGSRPYESGLEEF LKREFGEHTKMTDVRKPKVMLTGTLSDRQPAELHLFR  
NYDAPETVREPRFNQNVNLRPPAQPSDQLVWRAARSSGAAPTYFRPNGRFLDGGLLANNPTLDAMTEIHEYNO DL  
IRKGQANKVKKLSIVVSLGTGRSPQVPVTCVDVFRPSNPWELAKTVFGAKELGKMVVDCC TDPDGRAVDRARAWC  
EMVG IQYFRLNPQLGTDIMLDEVSDTVLVNALWETEVYIYEHREEFQKLIHLLSP

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**FIGURE 714**

TAAAACTTTAGGAAATTAGTACCAGACTTTTATATTGGTCAACAGCAAAATGAACATTACTACTCAGCCTCCAAC  
ACATGCAGTTTGCCTATACCAGGGATCCTGTCAAATATACACCACTTATAGCTTCTTAAGTGCAGTTATCATAG  
AGCACAGTCCCTGACATCACACAGCTGCAGAGATGAATAAAACAAAGAGGAACCTACTCAGAAGTGAGTCTGGCCC  
AGGACCCAAAGAGGCAGCAAAGGAACTTAAGGGCAATAAAATCTCCATTTAGGAACCAAACAGGAAATATTCC  
AAGTAGAATTAAACCTTCAAATGCTTCTTCGGATCATCAAGGGAATGACAAGACATATCACTGCAAAGGTTTAC  
TGCCACCTCCAGAGAAGCTCACTGCTGAGGTCTAGGAATCATTGTCATTGTCCTGATGGCCACTGTGTTAAAAA  
CAATAGTTCTTATTCCTTGTATTGGAGTACTGGAGCAGAACAAATTTTCCCTGAATAGAAGAATGCAGAAAGCAC  
GTCATTGTGGCCATTGTCCTGAGGAGTGGATTACATATTCCAACAGTTGTTATTACATTGGTAAGGAAAGAAGAA  
CTTGGAAGAAAAGAGTTTGCTGGCCTGTGCTTCGAAGAACTCTGATCTGCTTTCTATAGATAATGAGGAAGAAAT  
GGTAAGACGTAAATGTTTCAACACTTTACTAAAAGCTTATTTCTGTCAATATCATATTTGTAGAAATCATCCATA  
TGTTTATACATATATTTACTTCATATATTTTTAAGTCTGTGTAGTATTCAACTGACTTCATAATATTTTTATATT  
CATATACTGTTAATGCACATTTGGTTATTTCCAGTTTTGCTTTTCATGGAAACCCATGCTTCTATAAATGTTTTT  
ATCACAAAATAAATATAAAGAAAACATAAAAAAAAAACCAAAAAAAAAAAAAAAAAAGGCGGCCGCGATATAG

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**FIGURE 715**

MNKQRGTYSEVSLAQDPKRQQRKLKGNKISISGTKQEIFQVELNLQNASSDHQGNDKTYHCKGLLPPEKLTAEV  
LGIICIVLMATVLKTIVLIPCIGVLEQNNFSLNRRMQKARHCGHCPEEWITYSNSCYIYIGKERRTWEERVCPVL  
RRTLICFL

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**FIGURE 716**

GAATTTCGATTTTTGAGACTTCTCCATCGGGATCGCCTGGTGTACCAAGTGTCCTACTGGTACTGAGGTTTGCTGC  
CTGCCTTCTTGCC**ATGT**CTAACGAAGTAGAAACAAGTGCAACCAATGGTCAGCCCGACCAACAGGCCGCACCAAA  
AGCACCCCTCAAAGAAGGAAAAAAGAAAGGCCCTGAAAAGACAGATGAATATCTCTTAGCAAGGTTCAAAGGCGA  
TGGTGTAATAATATAAGGCCAAGCTGATTGGCATTGATGATGTGCCAGATGCAAGAGGGGATAAAATGAGCCAAGA  
CTCTATGATGAACTAAAGGGAATGGCGGCAGCTGGTCCGTCTCAGGGACAACACAAACAAAGGATCTGGGTCAA  
CATTTCCCTTTCTGGGATAAAAAATAATTGATGAGAAAAGTGGGGTAATAGAGCATGAACATCCAGTAAATAAGAT  
TTCTTTTCATTGCCCCGTGATGTGACAGACAACCGGGCATTGGTTACGTGTGTGGAGGAGAAGGCCAGCATCAGTT  
TTTTTGCCATAAAAAACCGGGCAACAGGCTGAACCATTAGTTGTTGATCTTAAAGACCTTTTTCAAGTTATCTATAA  
TGTAAGAAAAAGGAAGAAGAAAAAGATAGAGGAAGCCAGCAAAGCAGTTGAGAATGGGAGTGAGGCCCT  
AATGATTCTAGATGACCAAATAACAACTGAAATCGGAAAGCAAAGATATCCTGTTAGTGATCTAAACTCTGA  
AATCGACACCAATCAGAATTCTTTAAGAGAAAATCCATTCTTAAACAAACGGCATCACCTCCTGTTCTCTTCCTCG  
ACCAACGCCTCAGGCATCCTTCTTGCCCTGAAAATGCCTTTTTCTGCCAATCTCAACTTCTTTCCACCCCTAATCC  
TGATCCTTTCCGTGACGATCCTTTACACAGCCAGACCAATCGACACCTTCTCGTTTGATTCTCTCAAATCTCC  
AGATCAGAAGAAAGAGAATTGAGTAGCTCGTCTACTCCGCTGAGTAATGGGCCCCCTGAATGGTGATGTTGACTA  
CTTTGGTCAGCAATTTGACCAGATCTCTAACCGGACTGGCAAACAGGAAGCTCAGGCAGGCCCATGGCCCTTTTC  
AAGTTCGCAAACCCAGCCAGCAGTGAGAACTCAAATGGGGTATCTGAAAGAGAACAGAACGGCTTCTCTGTCAA  
ATCCTCCCCGAACCTTTTGTGGGAAGCCCTCCCAAAGGACTGTCCATACAGAATGGCGTAAAGCAGGACTTGGA  
AAGCTCTGTCCAGTCCTCACCACATGACTCCATAGCCATTATCCCACCTCCACAAAGTACCAAACAGGAAGAGG  
CAGAAGGACTGCTAAGTCTTCAGCCAATGACTTGCTTGCATCAGACATCTTTGCTCCTCCCGTCTCAGAACCTTC  
AGGCCAGGCGTCACCCACAGGACAACCTACAGCCCTGCAGCCCAACCTCTGGATCTCTTCAAACAAGTGCTCC  
TGCCCCAGTGGGGCCCCAGGTGGGTCTAGGTGGTGTAAGTGTACACTTCCTCAGGCAGGACCATGGAACACAGC  
ATCTTTGGTCTTCAATCAGTCCCCTTCAATGGCTCCGGGAGCCATGATGGGTGGTCAACCTTCAGGTTTTAGTCA  
GCCCCGTCATTTTTGGGTACAAGTCCAGCTGTTTCAGGTTGGAACAGCCTTCACCCTTTCAGCCTCAACTCCCCC  
TCCAGTGCCTGTTGTCTGGGGCCCTTCTGCATCTGTGGCACCCAATGCTTGGTCAACAACAAGCCCTTTGGGGAA  
TCCTTTTCAGAGCAATATTTTTCCAGCTCCTGCTGTGTCCACTCAGCCCCCATCCATGCACTCCTCTCTCCTGGT  
CACTCCTCCTCAGCCACCTCCCAGAGCTGGCCCTCCCAAGGACATCTCCAGTGATGCCTTCACTGCCTTAGACCC  
ACTTGGGGATAAAGAGATCAAGGATGTGAAAGAAATGTTTAAGGATTTCCAAGTGGGAGCCACCTGCTGTGCC  
CGCGCGGAAGGGAGAGCAGACTTCTTCTGGGACTTTGAGTGCCCTTGCCAGTTATTTCAACAGCAAGGTTGGCAT  
TCCTCAGGAGAATGCAGACCATGATGACTTTGATGCTAATCAACTATTGAACAAGATCAATGAACCACCAAAGCC  
AGCTCCCAGACAAGTTTCCCTGCCAGTTACCAAATCTACTGACAAATGCATTTGAGAACCCTTTCTTTAAAGATTCT  
TTTTGGTTCATCACAAGCCTCTGTGGCTTCTTCTCAACCTGTATCTTCTGAGATGTATAGGGATCCATTTGGAAA  
TCCTTTTGCC**TAA**ATTCTGAACTTGGTCTGCAGACCATCCAGAGGAATAAAAAGGTTGGCCTTAGTAGTCAAAAA  
CAAAGCTGATAGCCAGACAGTTCTGATTTCTGCCCTTGTTCAGCTTTGACGTATTATCTGTTGCCTTATTTCT  
CATTGCCTCTTCTACTTGTAAATGCTTTTCACTTTCTGTCTAGGTTAAAGCTAAACTGAATCTATGGCTTTAAA  
TAAATTAAGATCCTAAACTCTCTAGCTTAAAGTGAAATGAAGTACAGTAGTTTCCCTACTGAACCCTGCCTCTTG  
TGTCCCTGGAACCTTCTAGAACACCTGCCTTCTACCCTCTGGTTGGGAGATGCAGCCACCACATCCCTTCATATC  
ATACTGTTTTGAATAAATTTTCAAATCCTTAAAAA

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**FIGURE 717**

MSNEVETSATNGQPDQQAAPKAPSKKEKKKGPEKTDEYLLARFKGDGVKYKAKLIGIDDVDPDARGDKMSQDSMMK  
LKGMAAAGRSQGQHKQRIWVNISLSGIKIIDEKTGVIEHEHPVNKISFIARDVTDNRAFGYVCGGEGQHQFFAIK  
TGQQAEPVLDLKDLEFQVIYNVKKKEEEEKKKIEEASKAVENGSEALMILDDQTNKLKSESKDILLVDLNSEIDTN  
QNSLRENPFLLTNGITSCSLPRPTQASFLPENAFSANLNFFPTPNPDPPFRDDPFTQPDQSTPSSFDLSPDQKK  
ENSSSSSTPLSNGPLNGDVDFYFGQQFDQISNRTGKQEAQAGPWPFSSSQTPAVRTQNGVSEREQNGFSVKSSPN  
PFVGSPPKGLSIQNGVKQDLESSVQSSPHDSIAIIPPPQSTKPGRGRRTAKSSANDLLASDIFAPPVSEPSGQAS  
PTGQPTALQPNPLDLFKTSAPAPVGPQVGLGGVTVTLPQAGPWNTASLVFNQSPSMAPGAMMGQPSGFSQPVI  
GTSPAVSGWNQPSPFPAASTPPVPVWGPASVAPNAWSTTSPLGNPFQSNIFPAPAVSTQPPSMHSSLLVTPPQ  
PPPRAGPPKDISSDAFTALDPLGDKEIKDVKEMFKDFQLRQPPAVPARKGEQTSSGTLSAFASYFNSKVGIPQEN  
ADHDDFDANQLLNKINEPPKPAPRQVSLPVTKSTDNAFENPFFKDSFGSSQASVASSQPVSSSEMYRDPFGNPFA

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**FIGURE 718**

GTCGCGCCATTTTGCCGGGGTTTGAATGTGAGGCGGAGCGGCGGCAGGAGCGGATAGTGCCAGCTACGGTCCGCG  
GCTGGGGTTCCCTCCTCCGTTTCTGTATCCCCACGAGATCCTATAGCA**AATG**GAACTCAGCGATGCAAATCTGCAA  
ACACTAACAGAATATTTAAAGAAAACACTTGATCCTGATCCTGCCATCCGACGTCCAGCTGAGAAATTTCTTGAA  
TCTGTTGAAGGAAATCAGAATTATCCACTGTTGCTTTTGACATTACTGGAGAAGTCCCAGGATAATGTTATCAAA  
GTATGTGCTTCAGTAACATTCAAAAACATATATTAAAGGAACTGGAGAATTGTTGAAGATGAACCAAACAAAATT  
TGTGAAGCCGATCGAGTGGCCATTAAAGCCAACATAGTGCACCTGATGCTTAGCAGCCCAGAGCAAATTCAGAAG  
CAGTTAAGTGATGCAATTAGCATTATTGGCAGAGAAGATTTCCACAGAAATGGCCTGACTTGCTGACAGAAATG  
GTGAATCGCTTTCAGAGTGGAGATTTCCATGTTATTAATGGAGTCCTCCGTACAGCACATTTCATTATTTAAAGA  
TACCGTCATGAATTTAAGTCAAACGAGTTATGGACTGAAATTAAGCTTGTTCTGGATGCCTTTGCTTTGCCTTTG  
ACTAATCTTTTTAAGGCCACTATTGAACTCTGCAGTACCCATGCAAATGATGCCTCTGCCCTGAGGATTCTGTTT  
TCTTCCCTGATCCTGATCTCAAAATTGTTCTATAGTTTAAACTTTCAGGATCTCCCTGAATTTTGGGAAGGTAAT  
ATGGAACTTGATGAATAATTTCCATACTCTCTTAACATTGGATAATAAGCTTTTACAACTGATGATGAAGAG  
GAAGCCGGCTTATTGGAGCTCTTAAATCCCAGATTTGTGATAATGCCGCACTCTATGCACAAAAGTACGATGAA  
GAATTCAGCGATACCTGCCTCGTTTTGTTACAGCCATCTGGAATTTACTAGTTACAACGGGTCAAGAGGTTAA  
TATGATTTGTTGGTAAGTAATGCAATTCATTTCTGGCTTCAGTTTGTGAGAGACCTCATTATAAGAATCTATTT  
GAGGACCAGAACACGCTGACAAGTATCTGTGAAAAGGTTATTGTGCCTAACATGGAATTTAGAGCTGCTGATGAA  
GAAGCATTGGAAGATAATTCTGAGGAGTACATAAGGAGAGATTTGGAAGGATCTGATATTGATACTAGACGCAGG  
GCTGCTTGTGATCTGGTACGAGGATTATGCAAGTTTTTTGAGGGACCTGTGACAGGAATCTTCTCTGGTTATGTT  
AATTCCATGCTGCAGGAATACGCAAAAATCCATCTGTCAACTGGAAACACAAAGATGCAGCCATCTACCTAGTG  
ACATCTTTGGCATCAAAAGCCCAAACACAGAAGCATGGAATTACACAAGCAAATGAACTTGTAACCTAACTGAG  
TTCTTTGTGAATCACATCCTCCCTGATTTAAATCAGCTAATGTGAATGAATTCCTGTCTTAAAGCTGACGGT  
ATCAAAATATATTATGATTTTTAGAAATCAAGTGCCAAAAGAACATCTTTTAGTCTCGATTCTCTCTTGATTAAT  
CATCTTCAAGCTGGAAGTATTGTTGTTTCATACTTACGCAGCTCATGCTCTTGAACGGCTCTTTACTATGCGAGGG  
CCTAACAAATGCCACTCTCTTTACAGCTGCAGAAATCGCACCGTTTGTGAGATTCTGCTAACAAACCTTTTCAA  
GCTCTCACACTTCCCTGGCTCTTCAGAAAATGAATATATTATGAAAGCTATCATGAGAAGTTTTTCTCTCTACAA  
GAAGCCATAATCCCCTACATCCCTACTCTCATCACTCAGCTTACACAGAAGCTATTAGCTGTTAGTAAGAACCCA  
AGCAAACCTCACTTTAACTACTACATGTTTGAAGCAATATGTTTATCCATAAGAATAAATTGCAAAGCTAACCTT  
GCTGCTGTTGTAAATTTTIGAGGAGGCTTTGTTTTTGGTGTTTACTGAAATCTTACAAAATGATGTGCAAGAATTT  
ATTCCATACGTCTTTCAAGTGATGTCTTTGCTTCTGGAAACACACAAAATGACATCCCGTCTTCTATATGGCC  
TTATTTCTCATCTCCTTCAGCCAGTGCTTTGGGAAAGAACAGGAAATATTCTGCTCTAGTGAGGCTTCTTCAA  
GCATTCTTAGAACGCGGTTCAAACACAATAGCAAGTGCTGCAGCTGACAAAATTCCTGGGTTACTAGGTGTCTTT  
CAGAAGCTGATTGCATCCAAAGCAAATGACCACCAAGGTTTTTATCTTCTAAACAGTATAATAGAGCATGCCT  
CCTGAATCAGTTGACCAATATAGGAAACAAATCTTCATTCTGCTATTCCAGAGACTTCAGAATTCAAAACAACC  
AAGTTTATCAAGAGTTTTTTAGTCTTTATTAATTTGTATTGCATAAAATATGGGGCACTAGCACTACAAGAAATA  
TTTGATGGTATACAACCAAAAATGTTTGAATGGTTTTGGAAAAAATTATTATTCCTGAAATTCAGAAGGTATCT  
GGAAATGTAGAGAAAAAGATCTGTGCGGTTGGCATAACCAACTTACTAACAGAATGTCCCCCAATGATGGACACT  
GAGTATACCAAACCTGTGGACTCCATTATTACAGTCTTTGATTGGTCTTTTTGAGTTACCCGAAGATGATACCAT  
CCTGATGAGGAACATTTTATTGACATAGAAGATACACCAGGATATCAGACTGCCTTCTCACAGTTGGCATTGCT  
GGGAAAAAAGAGCATGATCCTGTAGGTCAAATGGTGAATAACCCCAAATTCACCTGGCACAGTCACTTCACATG  
TTGTCTACCGCCTGTCCAGGAAGGTTCCATCAATGGTGAGCACCAGCCTGAATGCAGAAGCGCTCCAGTATCTC  
CAAGGGTACCTTCAGGCAGCCAGTGTGACACTGCTT**TAAA**CTGCATTTTTCTAATGGGCTAAACCCAGATGGTTT  
CCTAGGAAATCACAGGCTTCTGAGCACAGCTGCATTAAAACAAAGGAAGTTTTCTTTTTGAACTTGTCACGA

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**FIGURE 719**

MELSDANLQTLTEYLKKTLDPDPAIRRPAEKFLESVEGNQNYPLLLLTLLEKSQDNVIKVCASVTFKNYIKRNWR  
IVEDEPNKICEADRVAIKANIVHMLSSPEQIQKQLSDAISIIIGREDFPQKWPDLITEMVNRFGSGDFHVGVL  
RTAHSLEFKRYRHEFKSNELWTEIKLVLDALPLTNLFKATIELCSTHANDASALRILFSSILILISKLFYSLNFQ  
DLPEFWEGNMETWMNNFHTLLTLDNKLLQTDDEEEAGLLELLKSQICDAAALYAQKYDEEFQRYLPRFVTAIWNL  
LVTTGQEVKYDLLVSNAIQFLASVCERPHYKNLFEDQNTLTSICEKVIVPNMEFRAADEEAFEDNSEEYIRRDL  
GSDIDTRRAACDLVRGLCKFFEGPVTGIFSGYVNSMLQEYAKNP SVNWKHKDAIYLVTSLASKAQTQKHGITQ  
ANELVNLTEFFVNHLPLDLKSANVNEFPVLKADGIKYIMIFRNQVPKEHLLVSIPLLINHLQAGSIVVHTYAHA  
LERLFTMRGPNNATLFTAAEIAPFVEILLTNLFKALTLPGSSENEYIMKAIMRSFSLQEAIIPYIPTLITQLTQ  
KLLAVSKNPSKPHFNHYMFEAICLSIRITCKANPAAVVNFEELFLVFTEILQNDVQEFIPYVFQVMSLLETHK  
NDIPSSYMALEPFLQPVWERTGNIPALVRLLQAFLEGRSNTIASAAADKIPGLLGVFQKLIASKANDHQGFYL  
LNSIIEHMPPEPESVDQYRKQIFILLFQRLQNSKTTKFIKSFLVINLYCIKYGALALQEIFDGIQPKMFGMVLEKI  
IIPYIQLVSGNVEKKICAVGITNLLTECPPMMDTEYTKLWTPLLQSLIGLFELPEDDTIPDEEHFIDIEDTPGYQ  
TAFSQAFAFAGKKEHDPVGMVNNPKIHLAQSLHMLSTACPRVPSMVSTSLNAEALQYLQGYLQAASVTLL



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**FIGURE 720A**

CCGTCCCGGGGCGGACGGGCGGGGCGGGAGGATGGAGCTGAACTCCCTGCTGATCCTGCTGGAGGCGGCCGAGT  
ACCTGGAGCGCAGGGATCGAGAGGCCGAGCACGGCTACGCCTCGGTGCTGCCCTTCGACGGCGACTTCGCCAGGG  
AGAAAACAAAGGCGGCCGGCTGGTGCACAAGGCCCGAACAACAGGTCTTCACACAACGAGCTAGAAAAGCACA  
GACGAGCCAACTCAGGCTGTACCTTGAGCAGCTCAAGCAACTGGTGCCCTGGGCCCCGACAGCACCCGCCACA  
CCACGCTGAGCCTCCTGAAGCGGGCCAAGGTGCACATCAAGAACTGGAGGAGCAGGACCGCCGGGCACTGAGCA  
TCAAGGAGCAGCTGCAGCAGGAGCATCGTTTTCTGAAGCGGCGCCTGGAGCAGCTGTGGTGCAGAGCGTGGAGC  
GCGTGCACACAGATAGCACGGGCTCTGCTGTCTCCACGGACGACTCAGAGCAAGAAGTGGACATAGAGGGCATGG  
AGTTTGGCCCTGGTGAGCTGGACAGTGTGGCAGCAGCAGTGACGCGGACGACCACTACAGCCTGCAGAGTGGCA  
CCGGCGGCGACAGTGGCTTCGGGCCCCACTGCCGGCGGCTGGGCGCCCCGCCCTCTCGTAGGCCCGTGCCCTCT  
GCTCCTTGGCCTGCCTGCCCCGACCCACGCGTGTACGCCCTCCAGTTCTCCTTCAGTTGACGCCAGCCTCTCCA  
CAGGCCCCACTGCTGTGCCATTCTGGAAGCTCCAGCTGCTGCTGGGCTGCCTGGCACTGCCCGCTTGCCGGTCAGG  
GCCTGCCGAGCTGCCTGCCCCCTCCAGCTGGGCAGAGTCCCCTGCAAGGAGGCAGGGCCCAGCTTCCACATCCGG  
AGCCCTGGTCAGCATAGCCGCCACGGTCTGTTCTCAGATTCTAATCATTCCAGAAGTATTAAACGTCATTGCT  
GCAAACCTCGGCAGGTGCCGTGTGAGGGGCTTAATGACCACCACAGGGAGCTCAGACCCCAACCTGGATCCAG  
GAGAAAGGAGTGGACCGAGGAAGGAAGGAAGGAAGGCTGTCTGTCCATCCGTCCGTCTGTCCACCTACCTGTCA  
GTCCACATAGGCTCCTGGCGTGGACAAGGGGTCTGTGAAGGGCGGGAACGGGTGAGCACCTGGGGCAGGTGGGT  
GGTTAAGGTCCTTCCACTTCGCAGGTGTGAGAACCTAGGGCTGGGCTCTCGGGGCCAGGCAGGCCAGCCAGCC  
CACGCCGAGCTGGGCAGCGTCTGCTCTGGTAGGACTGTGACGCGCACGCGCACGCACTAGACACACCCACTC  
ATGTACATGCTCACACATGCAGACACACCTGGGCGTCCCAGGTCACATGTTCTGGGGATGATGGCCTTCAGGGG  
TCATCTGGCAAACAGCCCCCTGGGCTGTGCCTGGATCCCCCTCTAGCTCCTGCTACCCACGCCACCCAGTAGTC  
CTGCCTGTCTGCACAGGAGAGGGGCTTCTCTTCTGGCTGGGGCTGGGGTGAAGTGGAGGCTGGTTAAGTTGCAG  
CCGCTGGGTCTCGGGGGCTTACTCATCTCCCTTTTTTAAACAAAAAGCAAAAAAGTAAAATGCTGCACTGCCCA  
GCAGCCCGGTTAGGGCTCCTGGAGCCACCTTAGGAAAGGGCTTCTCATGAGCTCTGCTGCGGCAGCTTCAGCTGG  
CAGAGAGGCTTTCCCAGAAAAAAGGCTTCTTAAAGAAAGGCTTAAAGACTCTCGGCCTAGGGA  
CGTCCGTGTGTGCCGCTCTGTTTCTGTACCAGATTTTGTATTCTATTTTCTAGCTGTTGTTGCGTCTTGT  
TTGTGTAGGGGTGGGAGCCACCCAGCGTCTCAGGGACCTGTCCCTCCGTACGTCGTCAAAGTGTGCCTTGTGTC  
TTGTGTAGGCCCTTGCCCTTCCCACAGCATGTCCCTCGTGGCTCAGGGTGCCCCAGGCCTGCCAGCTAGTGCT  
GTCCTCCCATCTCCTGTGGGAGCCCTTCCGGCAGCCAGGGCTTCTGGAGGCGATGCAGCCAGGCCCCGTGTTG  
GTGGCACGGAGGGGCTGTGACCTGGTCCCCAGTGTGGCTCCCCAGTGGCTGGCAGGGGCTGCTTGCTCACTA  
GAGAGATGGATTCTCACCTGTACCTGACTCGAGCCCCCTGCTTCTTGCCCTAGGCGAGGGTTCCAGGTTTTCAGA  
CACTGGCAGCCAATGAAGACTGTGCTCGCTGGGTGGTGCAGGCCTGGCACCAGGAGGCTTGACCCGCTTTCTCT  
TCCTGACGTCCTCTGTCTTGGGGCTGGCCCATAGCAGTGCCTGCCGTGCTCTGGTACATCTGTAGCCAATTCC  
CATATCATGGGGAATTCGTGTCTATTTTTCAGTCGTACGCATAGACGCCCCAGGATGGGGGGCCCACTGTGGCG  
GAAGGGGGTCCCTGGAAACAACTCTGGCACAGAACCTGCCCTGCAGGCTGTAGGGGGCATGGTGCCTGGAGCTGA  
GGGGCATCCGAACGCGTTGCGGGTGGTTGTGAGGAGGCTGTCTGCATCTCCTTCCGGCCCCACTGGGGTCCAGG  
GGTGCCAGAAAGGAGCTTCCCTGCCTGCCTGAGTCTGTCCCCCAGGCTTCATTTCAAACACCGTGGCACCTC  
CGAGCAAGGCGGGCCGTGTGTAAGCTTGCTTCCCCAGCCAGCACTGCAGGGCCCTGAGGTGGTCTGTCTCCCTG  
CCCTCAATTCTTGAAGCACCAGCTCCCTGCCCCACCCTCCAGTGCCTGAGGCAGCTAGGGGCTTCTGCTCTCATC  
TCTGACCAGCAGAAATCCACCCGGTGACCAGTGGTGGCCCCCTCAGCCCAACCCTCCCGGCAGCTCAGCCTGTGGCTC  
TTGAGGCCGTGGTTCCACGTGGACTGGGAGGCACTCAGCCACCCGGGGTGCTGTTAGCTGCCCCCTCCCTGC  
CATCAGCAGGTGGGTGAGGGGTTGCCACTGGGTGGGGGCCCCGTGCTAGGAGTCAACCATGCTCCAACCTCCCA  
CTGCTCCCTGTGAGGGGCCCAGGCTGCCATCACTGGAGGCTGCAGGGACCAAGAGGCCATCACCCTGTCTATAGA  
GAGCAGACAGAAGCAGAACAGAGCCCGGGGCTCCTGAGCCTCTGCGTGTGCCCTCCAGCCACACCAGTGCTCT  
CGGCCACTGAGCACCCAGACTCAGGCTTGGGTTCCTCAGCCTTATTGGAAGGCAGCTCCCGCATACCAGGATAAC  
CCCCGCAAACCATAGCAGACCCCCGCCATCCTCGCAGAGTGGGAGAGGCTGCAGCAAGGCTTTGCTCTGCAG  
ACCCCATCTTAGTGGCACGGTGTGTTGGGCTGTGTCCCCGGGTGGTGGAAACCTGTACCGGTCTGTGGCCCTAGG  
GTCCCTGCTCTGTCTGCCCCGGCCCGTGTGTCCGCTGGGTGAGGCAGGCTCCCCCGTGCCCTGCCTCCCTCTGT  
CAGGGAACCTGGGACCCCTCCCCACTGCCTGCACAGAGGACCTGACCTCGGCCAGCAGGGTGGCCCCAGGTC

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**FIGURE 720B**

CATGTTGGGCACTAGGGCAGGTTCCGTGCCAGAGTCGGGGGCCACACGAGGGCCTGGTGCCGGTGAGGGGGGCGT  
GCGCTAGAGGGGGAAAGGGGCCCCCGGCCACCTGTCCACCGTGTGGGCCGTGCTGTGTCCTTATGTCATTGTAAT  
ATAAATACAGATTTTTATATCTC

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**FIGURE 721**

MELNSLLILLEAAEYLERRDREAHEGYASVLPFDGDFAREKTKAAGLVRKAPNNRSSHNELEKHRRAKLRLYLEQ  
LKQLVPLGPDSTRHTTSLKRAKVHIKKLEEQDRRALSIKEQLQQEHRFLKRRLEQLSVQSVERVRTDSTGSAV  
STDDSEQEVDIEGMEFGPGELDSVGSSSDADDHYSLSGTGGDSGFGPHCRRRLGRPALS

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**FIGURE 722**

**FIGURE 722**

[illegible]

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**FIGURE 723**

MQQPFNYPYPQIYWVDSSASSPWAPPGTVLPCPTSVPRRPGQRRPPPPPPPPPLPPPPPPPLPPLPLPPLKKRG  
NHSTGLCLLMFFMVLVALVGLGLGMFQLFHLQKELAELESTSQMHTASSLEKQIGHPSPPPEKKELRKVAHLT  
GKSNSRSMPLWEDTYGIVLLSGVKYKKGGLVINETGLYFVYSKVYFRGQSCNNLPLSHKVYMRNSKYPQDLVMM  
EGKMMSYCTTGQMWARSSYLGAVFNLTSADHLYVNVSELSLVNFEESQTFFGLYKL

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**FIGURE 724**

ACTAAGACCGCAAGGCATTTCATTTCTCTCTACGGTGGATGCGGACGCCGGGAGGAGAGAGCCCCAGAGAGAGGA  
GCTGGGAGCGGAGGCGCAGGCAATGCTCAGCCCTGGATGTAGCTGAGAGGCTGGGAGAAGAGACGACCGCTGGAG  
ACCGAGCGGCGTGGGGAAAGACCTAGGGGGGTGGGTGGGGGAAGCAGACAGGAGAACACTCGAAATCAAGCGCTTT  
ACAGATTATTTTATTTTGTATAGAGAACACGTAGCGACTCCGAAGATCAGCCCCAATGAACATGTCAGTGTGAC  
TTTACAAGAATATGAATTGAAAAGCAGTTCAACGAGAATGAAGCCATCCAATGGATGCAGGAAAACCTGGAAGAA  
ATCTTTCTGTTTTCTGCTCTGTATGCTGCCTTTATATTCGGTGGTTCGGCACCTAATGAATAAACGAGCAAAGTT  
TGAACCTGAGGAAGCCATTAGTGCTCTGGTCTCTGACCCTTGCACTCTTCAGTATATTCGGTGTCTCTCGAACTGG  
TGCTTATATGGTGTACATTTTGATGACCAAAGGCCTGAAGCAGTCAGTTTGTGACCAGGGTTTTTACAATGGACC  
TGTCAGCAAATCTGGGCTTATGCATTTGTGCTAAGCAAAGCACCCGAACTAGGAGATACAATATTCATTATTCT  
GAGGAAGCAGAAGCTGATCTTCTGCACTGGTATCACCACATCACTGTGCTCCTGTACTCTTGGTACTCCTACAA  
AGACATGGTTGCCGGGGGAGGTTGGTTCATGACTATGAACTATGGCGTGACGCCGTGATGTACTCTTACTATGC  
CTTGCGGGCGGCAGGTTTCCGAGTCTCCCGGAAGTTTGCCATGTTTCATCACCTTGTCAGATCACTCAGATGCT  
GATGGGCTGTGTGGTTAACTACCTGGTCTTCTGCTGGATGCAGCATGACCAGTGTCACTCTCACTTTTCAAGCAT  
CTTCTGGTCTCACTCATGTACCTCAGCTACCTTGTGCTCTTCTGCCATTTCTTCTTTGAGGCCTACATCGGCAA  
AATGAGGAAAAACAAGAAAGCTGAATAGTGTGGAACTGAGGAGGAAGCCATAGCTCAGGGTCATCAAGAAAAAT  
AATAGACAAAAAGAAATGGCACAAGGAATCACACGTGGTGCAGCTAAAAACAAAACATGAGCAAAACACAAA  
ACCCAAGGCAGCTTAGGGATAATTAGGTTGATTTAACCCAGTAAGTTTATGATCCTTTTAGGGTGAGGACTCACT  
GAGTGCACCTCCATCTCCAAGCACTGCTGCTGGAAGACCCCCATTCCCTCTTTATCTATCAACTCTAGGACAAGGG  
AGAACAAAAGCAAGCCAGAAGCAGAGGAGACTAATCAAAGGCAAACAAAGGCTATTAACACATAGGAAAATATGT  
ATTTACTAAGTGTACATTTCTCTAAGATGAAAGATTTTACTCTAGAACTGTGCGAGCACACACACACAATC  
CTTTCTAACTTTATGGACACTAACTGGAGCCAATAGAAAAGACAAAAATGAAAGAGACACAGGGTGTATATCTA  
GAACGATAATGCTTTTGCAGAACTAAAGCCTTTTTAAGAAATGCCAGCTGCTGTAGACCCCATGAGAAAAGATG  
TCTTAATCATCCTTATGAAAACAGATGTAAACAATATATTTCAACTAACTTCATCTTCACTGCATAGCCTCAGG  
CTAGTGAGTTTGCCAAAACCAAAGGGGGTGAATACTTCCCCAAGATTCTTCTGGGAGGATGGAACAGTGCAGC  
CCAGGTCCCATGGGGGCAGCTCCATCCCAGAGCATTCTGTAGATTGAACTGTAATTTCTACTCTTAAGTGAGAT  
ATGAAGTATTATCCTTTTGTTCAGTTGCCCGGGCTTTTGAACAGAAGAGTAAATACAGAATTGAAAAAGATAAA  
CACTCAACCAAAACAATGTGAAAACGGGTTCTGTAGTATTTGTAAAAAGGCCCGGCCAGGACCACTGTGAGCTGG  
AAAAGGGAGAAAAGGCAGTGGGAAAAGAGGTGAGCCGAAGATCAATTCGACAGACAGACGGTGTGTATGCCCTCC  
CTGTTTGACTTCACACACACTCATACTTTCCAAATGAAACCCACAGTATAGCGCATATTTTCGATATTTTTGT  
GAATTCCAAAAGGAAATCACAGGGCTGTTTCAAAATATTGGGGGAACACTGTGTTTCTGCATCATCTGCATTTGCT  
CCCCAAGCAATGTAGAGGTGTTTAAAGGGCCCTCTGCTGGCTGAGTGGAATACTACAACAACTTCAAGGCAAG  
TTTGGCTGAAAACAGTTGACAACAAAGGGCCCCCATAACCTTATCCCTCAAATTTTAAAGTGATATGAAATACTTG  
TCATGTCTTTGGCCAAATCAGAAGATATTCATCCTGCTTCAAGTCAGCTTCAGAAATGTTTTAAAGGGACTTTA  
GCTCTGGAACCTCAAAATCAATTTATTAAGAGCCATATTCCTTAAAAAAGCTGGATAATATTATCTGTAATA  
TTTCAGTCCTTTACAAGCCAAATACATGTGTCAATGTTTCTAGTATTTCAAAGAAGCAATTATGTAAAGTTGTTT  
AATGTGACATAATAGTATTATAATTGGTTAAGTAGCTTAATGATTAGGCAAACTAGATGAAAAGATTAGGGGCTT  
CCACACTGCATAGATCACACGCACATAGCCACGCATACACACACAGACACACAGATGTGGGGTACACTGAATTC  
AAAGCCCAATGAATAGAAACACATTTCTGGCTAGCAGAAAAAACAACAAACTGTTGTTTCTCTTTCTTG  
CTTTGAGAGTGTACAGTAAAAGGGATTTTTTCAATTATTTTATATTATTTAGCTTTAATTGTGCTGTCGTTT  
ATGAAACAGAGCTGCTCTGCTTTTCTGTGAGAGATGGCAAGGGCTTTTCAGCATCTCGTTTATGTGTGGAATTT  
AAAAAGAATAAGTTTTATTCCATTCTGAAAAAATAAAAAAAAAA

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**FIGURE 725**

MNMSVLTQLQYEFQFNENEAIQWMQENWKKSFLLSALYAAFIFGGRHLMNKRAKFE LRKPLVLWSLTLAVFSI  
FGALRTGAYMVYILMTKGLKQSVCDQGFYNGPVSKFWAYAFVLSKAPELGDTIFIILRKQKLIFLHWYHHITVLL  
YSWYSYKDMVAGGGWFMTMNYGVHAVMYSYYALRAAGFRVSRKFAMFITLSQITQMLMGCVVNYLVFCWMQHDQC  
HSHFQNIWFSSLMYLSYLVLFCHFFFEAYIGKMRKTTKAE

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**FIGURE 726**

GACGTTTCGCGCCAATTTCCGGTTGGCCGGCCACAGTCCACCGCGCGGAGATTCTCAGCTTCCCCAGGAGCAAGAC  
CTCTGAGCCCCGCCAAGCGCGGCCGCACGGCCCTCGGCAGCG**ATG**GCACTGAAGGACTACGCGCTAGAGAAGGAAA  
AGGTTAAGAAGTTCTTACAAGAGTTCTACCAGGATGATGAACTCGGGAAGAAGCAGTTCAAGTATGGGAACCAGT  
TGGTTCCGGCTGGCTCATCGGGAACAGGTGGCTCTGTATGTGGACCTGGACGACGTAGCCGAGGATGACCCCGAGT  
TGGTGGACTCAATTTGTGAGAATGCCAGGCGCTACGCGAAGCTCTTTGCTGATGCCGTACAAGAGCTGCTGCCTC  
AGTACAAGGAGAGGGAAGTGGTAAATAAAGATGTCCTGGACGTTTACATTGAGCATCGGCTAATGATGGAGCAGC  
GGAGTCGGGACCCCTGGGATGGTCCGAAGCCCCCAGAACCAGTACCCTGCTGAACTCATGCGCAGATTTGAGCTGT  
ATTTTCAAGGCCCTAGCAGCAGCAAGCCTCGTGTGATCCGGGAAGTGCGGGCTGACTCTGTGGGGAAGTTGGTAA  
CTGTGCGTGGAATCGTCACTCGTGTCTCTGAAGTCAAACCCAAGATGGTGGTGGCCACTTACACTTGTGACCAGT  
GTGGGGCAGAGACCTACCAGCCGATCCAGTCTCCCACTTTTCATGCCTCTGATCATGTGCCAAGCCAGGAGTGCC  
AAACCAACCGCTCAGGAGGGCGGCTGTATCTGCAGACACGGGGCTCCAGATTCATCAAATTCAGGAGATGAAGA  
TGCAAGAACATAGTGATCAGGTGCCTGTGGGAAATATCCCTCGTAGTATCACGGTGCTGGTAGAAGGAGAGAACA  
CAAGGATTGCCCAGCCTGGAGACCACGTACGCGTCACTGGTATTTCTTGCCAATCCTGCGCACTGGGTTCGGAC  
AGGTGGTACAGGGTTTACTCTCAGAAACCTACCTGGAAGCCCATCGGATTGTGAAGATGAACAAGAGTGAGGATG  
ATGAGTCTGGGGCTGGAGAGCTCACCAGGGAGGAGCTGAGGCAAATTGCAGAGGAGGATTTCTACGAAAAGCTGG  
CAGCTTCAATCGCCCCAGAAATATACGGGCATGAAGATGTGAAGAAGGCACTGCTGCTCCTGCTAGTCGGGGGTG  
TGGACCAGTCTCCTCGAGGCATGAAAATCCGGGGCAACATCAACATCTGTCTGATGGGGGATCCTGGTGTGGCCA  
AGTCTCAGCTCCTGTCTATACATTGATCGACTGGCGCCTCGCAGCCAGTACACAACAGGCCGGGGCTCCTCAGGAG  
TGGGGCTTACGGCAGCTGTGCTGAGAGACTCCGTGAGTGAGGAACTGACCTTAGAGGGTGGGGCCCTGGTGTGG  
CTGACCAGGGTGTGTGCTGCATTGATGAGTTGACACAAGATGGCTGAGGCCGACCGCACAGCCATCCACGAGGTCA  
TGGAGCAGCAGACCATCTCCATTGCCAAGGCCGGCATTCTCACCACACTCAATGCCCCGCTGCTCCATCCTGGCTG  
CCGCCAACCCTGCCTACGGGCGCTACAACCCTCGCCGCAGCCTGGAGCAGAACATACAGCTACCTGCTGCACTGC  
TCTCCCGGTTTGACCTCCTCTGGCTGATTGAGGACCGGCCCCGACCGAGACAATGACCTACGGTTGGCCAGCACA  
TCACCTATGTGCACCAGCACAGCCGGCAGCCCCCTCCCACTTTGAACCTCTGGACATGAAGCTCATGAGGCGTT  
ACATAGCCATGTGCCGCGAGAAGCAGCCCATGGTGCCAGAGTCTCTGGCTGACTACATCACAGCAGCATACGTGG  
AGATGAGGCGAGAGGCTTGGGCTAGTAAGGATGCCACCTATACTTCTGCCCGGACCCTGCTGGCTATCCTGCGCC  
TTTCCACTGCTCTGGCACGTCTGAGAATGGTGGATGTGGTGGAGAAAGAAGATGTGAATGAAGCCATCAGGCTAA  
TGGAGATGTCAAAGGACTCTCTTCTAGGAGACAAGGGGCAGACAGCTAGGACTCAGAGACCAGCAGATGTGATAT  
TTGCCACCGTCCGTGAACTGGTCTCAGGGGGCCGAAGTGTCCGGTTCTCTGAGGCAGAGCAGCGCTGTGTATCTC  
GTGGCTTACACCCGCCAGTTCCAGGCGGCTCTGGATGAATATGAGGAGCTCAATGTCTGGCAGGTCAATGCTT  
CCCGGACACGGATCACTTTTGTCT**TG**ATTCCAGCCTGCTTGCAACCCTGGGGTCCTCTTGTTCCCTGCTGGCCTGC  
CCCTTGGGAAGGGGCAGTGATGCCTTTGAGGGGAAGGAGGAGCCCTCTTTCTCCCATGCTGCACTTACTCCTTT  
TGCTAATAAAAAGTGTTTGTAGATTGTC



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**FIGURE 727**

MALKDYALEKEKVKKFLQEFYQDDELGKKQFKYGNQLVRLAHREQVALYVDLDDVAEDDPELVDSICENARRYAK  
LFADAVQELLQPQKEREVVNKDVLDVYIEHRLMMEQSRDPGMVRSPQNQYPAELMRRFELYFQGPSSSKPRVIR  
EVRADSVGKLVTVRGIVTRVSEVKPKMVVATYTCDCGAETYQPIQSPTFMPLIMCPSQECQTNRSGGRLYLQTR  
GSRFIKFQEMKMQEHSQVPVGNIPRSITVLVEGENTRIAQPGDHVSVTGIFLPILRTGFRQVVQGLLSETYLEA  
HRIVKMNKSEDDDESGAGELTREELRQIAEEDFYEKLAASIAPEIYGHEDVKKALLLLLVGGVDQSPRGMKIRGNI  
NICLMGDPGVAKSQLLSYIDRLAPRSQYTTGRGSSGVGLTAAVLRDSVSGELTLEGGALVLADQGVCCIDEFDKM  
AEADRTAIHEVMEQQTISIAGILTTLNARCSILAAANPAYGRYNPRRSLEQNIQLPAALLSRFDLLWLIQDRP  
DRDNDLRLAQHITYVHQHSRQPPSQFEPLDMKLMRRYIAMCREKQPMVPESLADYITAAYVEMRREAWASKDATY  
TSARTLLAILRLSTALARLRMVDVVEKEDVNEAIRLMEMSKDSLGDKGQTARTQRPADVIFATVRELVSGGRSV  
RFSEAEQRCVSRGFTPAQFQAALDEYEELNVWQVNASRTRITFV

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**FIGURE 728**

GCGGAGCGAGAGGCTGAGAGAGTCGGAGACACTATCCGCTTCCATCCGTCGCGCAGACCCTGCCGGAGCCGCTGC  
CGCT**ATGG**ATGATCGAGAGGATCTGGTGTACCAGGCGAAGCTGGCCGAGCAGGCTGAGCGATACGACGAAATGGT  
GGAGTCAATGAAGAAAGTAGCAGGGATGGATGTGGAGCTGACAGTTGAAGAAAGAAACCTCCTATCTGTTGCATA  
TAAGAATGTGATTGGAGCTAGAAGAGCCTCCTGGAGAATAATCAGCAGCATTGAACAGAAAGAAGAAAACAAGGG  
AGGAGAAGACAAGCTAAAAATGATTTCGGGAATATCGGCAAATGGTTGAGACTGAGCTAAAGTTAATCTGTTGTGA  
CATTCTGGATGTACTGGACAAACACCTCATTCCAGCAGCTAACACTGGCGAGTCCAAGGTTTTCTATTATAAAAT  
GAAAGGGGACTACCACAGGTATCTGGCAGAATTTGCCACAGGAAACGACAGGAAGGAGGCTGCGGAGAACAGCCT  
AGTGGCTTATAAAGCTGCTAGTGATATTGCAATGACAGAAGCTTCCACCAACGCATCCTATTTCGCTTAGGTCTTGC  
TCTCAATTTTTCCGTATTCTACTACGAAATTCTTAATTCCTGACCGTGCCTGCAGGTTGGCAAAGCAGCTTT  
TGATGATGCAATTGCAGAACTGGATACGCTGAGTGAAGAAAGCTATAAGGACTCTACACTTATCATGCAGTTGTT  
ACGTGATAATCTGACACTATGGACTTCAGACATGCAGGGTGACGGTGAAGAGCAGAATAAAGAAGCGCTGCAGGA  
CGTGGAAGACGAAAATCAG**TG**AGACATAAGCCAACAAGAGAAACCATCTCTGACCACCCCTCCTCCCCATCCCA  
CCCTTTGGAAACTCCCCATTGTCACTGAGAACCACCAAATCTGACTTTTACATTTGGTCTCAGAATTTAGGTTCC  
TGCCCTGTTGGTTTTTTTTTTTTTTTTTTTTTAAACAGTTTTCAAAAGTTCTTAAAGGCAAGAGTGAATTTCTGTG  
GATTTTACTGGTCCCAGCTTTTAGGTTCTTTAAGACACTAACAGGACTACATAGAGGCTTTTTCAGCATTACTGT  
GTCGTCCTCCGTGCCAGATGTGGCAAGATCACCATTAGCAAATGGAAATTACATTTGAAAGCCATTAGACTTATAG  
GTGATGCAAGCATCTAAGAGAGAGGTTAATCACACTATAGAGGCATAAGTGGTATCAGTTTTCATTTTTCTAATT  
GTTTAAACTGTGTTTTATACCAGTGTTTGCAAGTAATTGGGTGTTAGCTTGAGATGGTTAAAGGTGGTTTGGGGA  
GGGACTTCGTTGTAATGGTTTTGCTGTAAAAAATGTTTCCAACCTCCGCTGAAATGTTGCTGAAAAGCATGGTGCT  
GGTAACAGTTCAACAATCCGTGGCTGCTCATTCTTGCTTACTTTACTCTCCCACTGAAGCAGGTTAGCGTTGAAG  
GTGGTATGGAAGCCTGCATGCCTGTTCAATTCTTTGTTTCTTCTCCTTCCCCCTCCCCCTACCTCCTTCCCC  
TCACTCCTCCCCTCCTTCGCTCGCTCAACCTCTTTTGTTTCAAGTATGTGTAACCTGAAGCTAATTTGTACTACTGG  
ATATCTGACTGGAGCCACAGATACAGAATCTGTATTGTTCTTACTGAAACACAGCATGGAATTAACATTAACTT  
AAATAAAACAAACCTAAATTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 729**

MDDREDLVYQAKLAEQAERYDEMVESMKKVAGMDVELTVEERNLLSVAYKNVIGARRASWRIISSIEQKEENKGG  
EDKLMIREYRQMVETELKLICCDILDVLDKHLIPAANTGESKVFYYKMGDYHRYLAEFATGNDRKEAAENSLV  
AYKAASDIAMTELPPTHPIRLGLALNFSVFYYEILNSPDRACRLAKAAFDDAIAELDTLSEESYKDSTLIMQLLR  
DNLTLTSDMQGDGEEQNKEALQDVEDENQ

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**FIGURE 730**

GGCACGAGGGGCGGCGGAGCCGACTCGTCGCGGCCGAGGCGCACGCGGTCCGCGCCGGCGTCAGTCTGGGATTGG  
 CCGGCCCGCGACTTCTCCGCCCTTGCCAATCGCCGGGGACGACTTCCGTGGGTTTTTCCGGCTCTCCCGCGTC  
 GCTAAGGAGCGACGGGCTGTGCGCCAGACCCGAGTTCTCGGTGCGCTCAGCGGCCGCCGACGCTAGGAGGCCGC  
 GCTCCGCCCCCGCTACCATGAGGCCCGGAAAGCCTTCTGCTCCTGCTGCTCTTGGGGCTGGTGCAGCTGCTGG  
 CCGTGGCGGGTGCCGAGGGCCGACGAGGATTCTTCTAACAGAGAAAAATGCCATTGAGGATGAAGAGGAGGAGG  
 AGGAGGAAGATGATGATGAGGAAGAAGACGACTTGGAAGTTAAGGAAGAAAAATGGAGTCTTGGTCTAAATGATG  
 CAACTTTGATAATTTTGTGGCTGACAAAGACACAGTGCTGCTGGAGTTTTATGCTCCATGGTGTGGACATTGCA  
 AGCAGTTTGCTCCGGAATATGAAAAAATTGCCAACATATTAAAGGATAAAGATCCTCCCATTCCTGTTGCCAAGA  
 TCGATGCAACCTCAGCGTCTGTGCTGGCCAGCAGGTTTGATGTGAGTGGCTACCCACCATCAAGATCCTTAAGA  
 AGGGGCAGGCTGTAGACTACGAGGGCTCCAGAACCCAGGAAGAAATGTTGCCAAGGTCAGAGAAGTCTCCCAGC  
 CCGACTGGACGCCTCCACCAGAAGTCACGCTTGTGTTGACCAAAGAGAACTTTGATGAAGTTGTGAATGATGCAG  
 ATATCATTCTGGTGGAGTTTTATGCCCATGGTGTGGACACTGCAAGAACTTGCCCCGAGTATGAGAAGGCCG  
 CCAAGGAGCTCAGCAAGCGTTCTCCTCCAATTCCCCTGGCAAAGGTCGACGCCACCGCAGAAACAGACCTGGCCA  
 AGAGGTTTGATGTCTCTGGCTATCCACCTGAAAATTTTCCGCAAAGGAAGGCCCTTATGACTACAACGGCCAC  
 GAGAAAAATATGGAATCGTTGATTACATGATCGAGCAGTCCGGGCCTCCCTCCAAGGAGATTCTGACCCTGAAGC  
 AGGTCCAGGAGTTCTGAAGGATGGAGACGATGTCATCATCATCGGGGTCTTTAAGGGGGAGAGTGACCCAGCCT  
 ACCAGCAATACCAGGATGCCGCTAACAACTGAGAGAAGATTACAAATTTTACCACACTTTTACGACAGAAATAG  
 CAAAGTTCTTGAAAGTCTCCCAGGGGCAGTTGGTTGTAATGCAGCCTGAGAAATTCCAGTCCAAGTATGAGCCCC  
 GGAGCCACATGATGGACGTCCAGGGCTCCACCCAGGACTCGGCCATCAAGGACTTCGTGCTGAAGTACGCCCTGC  
 CCCTGGTTGGCCACCGCAAGGTGTCAAACGATGCTAAGCGCTACACCAGGCGCCCCCTGGTGGTCTGCTACTACA  
 GTGTGGACTTCAGCTTTGATTACAGAGCTGCAACTCAGTTTTGGCGGAGCAAAGTCCTAGAGGTGGCCAAGGACT  
 TCCCTGAGTACACCTTTGCCATTGCGGACGAAGAGGACTATGCTGGGGAGGTGAAGGACCTGGGGCTCAGCGAGA  
 GTGGGGAGGATGTCAATGCCGCCATCCTGGACGAGAGTGGGAAGAAGTTCGCCATGGAGCCAGAGGAGTTTGACT  
 CTGACACCCTCCGCGAGTTTGTCACTGCTTTCAAAAAAGGAAAACTGAAGCCAGTCATCAATCCCAGCCAGTGC  
 CCAAGAACAACAAGGGACCCGTCAAGGTCTGTGGTGGGAAAGACCTTTGACTCCATTGTGATGGACCCCAAGAAGG  
 ACGTCTCATCGAGTTCTACGCACCATGGTGCGGGCACTGCAAGCAGCTAGAGCCCGTGTACAACAGCCTGGCCA  
 AGAAGTACAAGGGGCCAAAAGGGCCTGGTCAATCGCCAAGATGGACGCCACTGCCAACGACGTCCCCAGCGACCGCT  
 ATAAGGTGGAGGGCTTCCCCACCATCTACTTCGCCCCAGTGGGGACAAAAAGAACCCAGTTAAATTTGAGGGTG  
 GAGACAGAGATCTGGAGCATTTGAGCAAGTTTATAGAAGAACATGCCACAAAAGTGAAGCAGGACCAAGGAAGAGC  
 TTTGAAGGCCTGAGGTCTGCGGAAGGTGGGAGGAGGCAGACACCCTGCGTGGCCCATGGTTCGGGGCGTCCACGCC  
 GAGGCCGGCAACAAACGACAGTATCTCGGATTCTTTTTTTTTTTTTTTTTTTTTTAAATTTTTTATACTTTGGTGTTCAC  
 TTCATGCTCTGAATACTGAATAACCATGAATGACTGAATAGTTTAGTCCAGATTTTTTACAGAGGATACATCTATT  
 TTTATCATTATTTGGGGTTTGAAAAATTTTTTTTTTACACCTTCTAATTTCTTTATTTCTCAAAGCAGATAATTCT  
 TCTGTGTGAAAAATGTTTTCTTTTTTTAATTTAAGGTTTAAAAATTCCTTTGCCAAATCATGTTGATTTTGCTCTTT  
 GCTTTTTCGTTGTCTGAGAAATTGTTGGCGTAGATTTGGCTTCTGGTATGTGTTTCTGATTGCTTCCTGTTGAGC  
 ACAAAGTGAGAGCTGCCACTGAGCAGCCCTGCCAGGGGTGCTGTTTCAGGCTGGGCATCGCCAGGCGGCCTCCCT  
 GCAAACCAAGGGCTGGGGGCAAAGGGGCATGATCCAGGGTCCCCAGGGTGGGCTCAGCTCCAGGGAGAGGCCAC  
 CCACGTGGCAGCCCCACCTCTTGAGAGCCCCAGTGCCGGAGCAGAAAGGACCCTGGACCCAGAGGCAGATACTG  
 CGGGGTGGTAGAAAAGGTAGAGTAGGCTGTGGCAATGGAATAAAACACGATTAAAAACGTTAAAAA  
 AAAAA

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**FIGURE 731**

MRPRKAFLLLLLLGLVQLLAVAGAEGPDEDSSNRENAIEDEEEEEEEEDDDEEEDDLEVKEENGVLVLNDANFDNF  
VADKDTVLLLEFYAPWCGHCKQFAPEYEKIANILKDKDPPIPVAKIDATSASVLASRFDVSGYPTIKILKKGQAVD  
YEGSRTQEEIVAKVREVSQPDWTPPPEVTLVLTKENFDEVVNDADIILVEFYAPWCGHCKKLAPEYEKAAKELSK  
RSPPIPLAKVDATAETDLAKRFDVSGYPTLKIFRKGRPYDYNGPREKYGIVDYMIEQSGPPSKEILTLKQVQEFLL  
KDGDDVILIGVFKGESDPAYQQYQDAANNLREDYKFHHTFSTEIAKFLKVSQGLVVMQPEKFQSKYEPRSHMMD  
VQGSTQDSAIKDFVLKYALPLVGHKVSNDKRYTRRPLVVVYYSVDFSFDYRAATQFWRKSVLEVAKDFPEYTF  
AIADEEDYAGEVKDLGLSESGEDVNAAILDESGKKFAMEPEEFDSDLREFVTAFKKGKLKPVIKSQVPKNNKG  
PVKVVVGKTFDSIVMDPKKDVLIIEFYAPWCGHCKQLEPVYNSLAKKYKGQKGLVIKMDATANDVPSDRYKVEGF  
PTIYFAPSGDKKNPVKFEGGDRDLEHLSKFIEEHATKLSRTKEEL

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**FIGURE 732**

AGGTTCTCTTACATCGACCGCCTAAGAGTCGCGCTGTAAGAAGCAACAACCTCTCCTCTTCGTCTCCGCCATCAG  
 CTCGGCAGTCGCGAAGCAGCAACC**ATG**CGTGAGTGCACTCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGC  
 AATGCCTGCTGGGAGCTCTACTGCCTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATT  
 GGGGGAGGAGATGATTTCCTTCAACACCTTCTTCAGTGAGACGGGGGCTGGCAAGCATGTGCCCCGGGCAGTGTTT  
 GTAGACTTGGAACCCACAGTCATTGATGAAGTTCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAACTT  
 ATCACAGGCAAAGAAGATGCTGCCAATAACTATGCCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTC  
 GTGTTGGACCGAATTCGCAAGCTGGCCGACCAGTGACCGGGTCTCCAGGGCTTCTTGGTTTTCCACAGCTTTGGT  
 GGGGGAAC TGTTCTGGGTTACCTCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTG  
 GAGTTCTCTATTTACCGGGCGCCCCAGGTTTCCACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCAC  
 ACCACCCTGGGAGCACTCTGATTGTGCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCTGAGAAACCTC  
 GATATTGAGCGTCCAACCTATACTAACCTGAATAGGTTAATAGGTCAAATTGTGTCTCTCCATCACTGCTTCCCTG  
 AGATTTGATGGAGCCCTGAATGTTGACCTGACAGAATTCAGACCAACCTGGTGGCCTATCCCCGCATCCACTTC  
 CCTCTGGCCACATATGCCCCTGTCATCTCTGCTGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGAGATCACC  
 AATGCTTGCTTTGAGCCAGCCAACCAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTG  
 TTGTACCGTGGTGACGTGGTTCCCAAAGATGTCAATGCTGCCATTGCCACCATCAAGACCAAGCGTACCATCCAG  
 TTTGTGGATTGGTGCCCCACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCCTGTGGTGCCTGGTGGAGAC  
 CTGGCCAAGGTACAGAGAGCTGTGTGCATGCTGAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGAC  
 CACAAGTTTGACCTGATGTATGCCAAACGTGCCCTTGTTCCTGTTGAGTTGGGGAGGGGATGGAGGAAGGTGAG  
 TTTTCAGAGGCCCGTGAGGACATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGA  
 GAGGGTGAGGAAGAAGGAGAGGAATACT**TAA**AGTTAAAACGTCACAAAGGTGCTGCTTTTACAGGGAAGCTTATTC  
 TGTTTTAAACATTGAAAAGTTGTGGTCTGATCAGTTAATTTGTATGTAGCAGTGATGCTCTCATATACAATTAC  
 TGACCTATGCTCTAAACATGAATGCTTTGTTACAGACCCAAGCTGTCCATTTCTGTGATGGGTTTTGAATAAAG  
 TATTCCTGTCTTAAAAAAAAAAAAAA

**FIGURE 733**

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI  
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHSFGGGTGSGFT  
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLIGQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPAN  
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV  
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEYVGVDSVEGEGEEEGEE  
Y

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**FIGURE 734**

AGGTTCTCTTACATCGACCGCCTAAGAGTCGCGCTGTAAGAAGCAACAACCTCTCCTCTTCGTCTCCGCCATCAG  
 CTCGGCAGTCGCGAAGCAGCAACC**ATG**CGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGC  
 AATGCCTGCTGGGAGCTCTACTGCCTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATT  
 GGGGGAGGAGATGATTCCCTTCAACACCTTCTTCAGTGAGACGGGGCTGGCAAGCATGTGCCCCGGGCAGTGTTT  
 GTAGACTTGGAACCCACAGTCATTGATGAAGTTCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAACTT  
 ATCACAGGCAAAGAAGATGCTGCCAATAACTATGCCCAGGGGCACTACACCATTGGCAAGGAGATCATTGACCTC  
 GTGTTGGACCGAATTCGCAAGCTGGCCGACCAGTGACGGGTCTCCAGGGCTTCTTGGTTTTCCACAGCTTTGGT  
 GGGGGAAGTGGTTCTGGGTTACCTCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTG  
 GAGTTCTCTATTTACCGGCGCCCCAGGTTTTCCACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCAC  
 ACCACCCTGGAGCACTCTGATTGTGCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCTGAGAAACCTC  
 GATATTGAGCGTCCAACCTATACTAACCTGAATAGGTTAATAGGTCAAATTGTGTCTCCATCACTGCTTCCCTG  
 AGATTTGATGGAGCCCTGAATGTTGACCTGACAGAATTCCAGACCAACCTGGTGCCCTATCCCGCATCCACTTC  
 CCTCTGGCCACATATGCCCCTGTCATCTCTGCTGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGAGATCACC  
 AATGCTTGCTTTGAGCCAGCCAACCAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTG  
 TTGTACCGTGGTGACGTGGTTCCCAAAGATGTCAATGCTGCCATTGCCACCATCAAGACCAAGCGTACCATCCAG  
 TTTGTGGATTGGTGCCCCACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGAC  
 CTGGCCAAGGTACAGAGAGCTGTGTGCATGCTGAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGAC  
 CACAAGTTTGACCTGATGTATGCCAAACGTGCCTTTGTTCACTGGTACGTTGGGGAGGGGATGGAGGAAGGTGAG  
 TTTTCAGAGGCCCGTGAGGACATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGA  
 GAGGGTGAGGAAGAAGGAGAGGAATACT**TAA**AGTTAAAACGTCACAAAGGTGCTGCTTTTACAGGGAAGCTTATTC  
 TGTTTTAAACATTGAAAAGTTGTGGTCTGATCAGTTAATTTGTATGTAGCAGTGTATGCTCTCATATACAATTAC  
 TGACCTATGCTCTAAAACATGAATGCTTTGTACAGACCCAAGCTGTCCATTTCTGTGATGGGTTTTGAATAAAG  
 TATTCCTGTCTTAAAAAAAAAAAAA



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**FIGURE 735**

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI  
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHSFGGGTGSGFT  
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYN SILTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLIGQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISA EKAYHEQLSVAEITNACFEPAN  
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV  
CMLSNTTAIAEAWARLDHKFDL MYAKRA FVHWYVGEGMEEGEFSEAREDMAALEKDYE EVGVDSVEGE GEEEEEE  
Y

**FIGURE 736**

**FIGURE 736**

[illegible]

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**FIGURE 737**

MQQPFNYPYPQIYWVDSSASSPWAPPGTVLPCPTSVPRRPGQRRPPPPPPPPPLPPPPPPPLPPLPLPPLKKRG  
NHSTGLCLLVMFFMVLVALVGLGLGMFQLFHLQKELAELESTSQMHTASSLEKQIGHPSPPPEKKELRKVAHLT  
GKSNSRSMPLWEDTYGIVLLSGVKYKKGGLVINETGLYFVYSKVYFRGQSCNNLPLSHKVYMRNSKYPQDLVMM  
EGKMMSYCTTGQMWARSSYLGAFFNLTSADHLYVNVSELSLVNFEESQTFFGLYKL

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**FIGURE 738**

GTAGATAGTCAGATGTCTTTTAAAAATGTGTTTTCGGTGTGGAATATTAACCCAATCTTTGATAACTCTTCCAGA  
ACCTTCGGCTCGCGTGCTTCTGAGCTGCTGTGGATGGCCTCGGCTCTCTGGACTGTCCTTCCGAGTAGGATGTCA  
CTGAGATCCCTCAAATGGAGCCTCCTGCTGCTGTCACTCCTGAGTTTCTTTGTGATGTGGTACCTCAGCCTTCCC  
CACTACAATGTGATAGAACGCGTGAACCTGGATGTACTTCTATGAGTATGAGCCGATTACAGACAAGACTTTTAC  
TTCACACTTCGAGAGCATTCAAACCTGCTCTCATCAAAATCCATTTCTGGTCATTCTGGTGACCTCCCACCCTTCA  
GATGTGAAAGCCAGGCAGGCCATTAGAGTTACTTGGGGTGAAAAAAAGTCTTGGTGGGGATATGAGGTTCTTACA  
TTTTTCTTATTAGGCCAAGAGGCTGAAAAGGAAGACAAAATGTTGGCATTGTCCTTAGAGGATGAACACCTTCTT  
TATGGTGACATAATCCGACAAGATTTTTTAGACACATATAATAACCTGACCTTGAAAACCATATGGCATTACAGG  
TGGGTAACCTGAGTTTGGCCCAATGCCAAGTACGTAATGAAGACAGACACTGATGTTTTCATCAATACTGGCAAT  
TTAGTGAAGTATCTTTAAACCTAAACCACTCAGAGAAGTTTTTACAGGTTATCCTCTAATTGATAATTATTCC  
TATAGAGGATTTTACCAAAAAACCCATATTTCTTACCAGGAGTATCCTTTCAAGGTGTTCCCTCCATACTGCAGT  
GGGTTGGGTTATATAATGTCCAGAGATTTGGTGCCAAGGATCTATGAAATGATGGGTCACGTAAAACCCATCAAG  
TTTGAAGATGTTTATGTCCGGGATCTGTTTGAATTTATTTAAAAGTGAACATTCATATTCCAGAAGACACAAATCTT  
TTCTTTCTATATAGAATCCATTTGGATGTCTGTCAACTGAGACGTGTGATTGCAGCCCATGGCTTTTCTTCCAAG  
GAGATCATCACTTTTTTGGCAGGTCATGCTAAGGAACACCACATGCCATTATTAACCTCACATTCTACAAAAGCC  
TAGAAGGACAGGATACTTTTGTGGAAAGTGTTAAATAAAGTAGGTACTGTGGAAAATTCATGGGGAGGTCAGTGTG  
CTGGCTTACACTGAACTGAACTCATGAAAAACCCAGACTGGAGACTGGAGGGTTACACTTGTGATTTATTAGTC  
AGGCCCTTCAAAGATGATATGTGGAGGAATTAATATAAAGGAATTGGAGGTTTTTGCTAAAGAAATTAATAGGA  
CCAAACAATTTGGACATGTCATTCTGTAGACTAGAATTTCTTAAAAGGGTGTTACTGAATTATAAGCTCACTAGG  
CTGTAAAAACAAAACAATGTAGAGTTTTTATTATTGAACAATGTAGTCACTTGAAGTTTTGTGTATATCTTATG  
TGGATTACCAATTTAAAAATATATGTAGTTCTGTGTCAAAAACTTCTTCACTGAAGTTATACTGAACAAAATTT  
TACCTGTTTTTGGTCATTTATAAAGTACTTCAAGATGTTGCAGTATTTACAGTTATTATTATTTAAAATTACTT  
CAACTTTGTGTTTTTAAATGTTTTGACGATTTCAATACAAGATAAAAAGGATAGTGAATCATTCTTTACATGCAA  
ACATTTTCCAGTTACTTAACTGATCAGTTTATTATTGATACATCACTCCATTAATGTAAAGTCATAGGTCATTAT  
TGCACATCAGTAATCTCTTGGACTTTGTTAAATATTTTACTGTGGTAATATAGAGAAGAATTAAGCAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAA

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**FIGURE 739**

MASALWTVLPSRMSLRSLKWSLLLLSLLSFFVMWYLSLPHYNVIERVNWMYFYEYEPiYRQDFHFTLREHSNCSH  
QNPFLVILVTSHPSDVKARQAIRVTWGEKKSWWGYEVLTFLLGQEAEKEDKMLALSLEDEHLLYGDIIRQDFLD  
TYNNLTLKTIMAFRWVTEFCPNAKYVMKTDTDVFINTGNLVKYLNLNHSEKFFTGYPLIDNYSYRGFYQKTHIS  
YQEYPFKVFFPYCSGLGYIMSRDLVPRIYEMMGHVKPIKFEDVYVGICLNLLKVNIHIPEDTNLFFLYRIHLDVC  
QLRRVIAAHGFSSKEIITFWQVMLRNTTCHY

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**FIGURE 740A**

ATTTCCCGCCAGCAGGAGCCGCGCGGTAGATGCGGTGCTTTTAGGAGCTCCGTCCGACAGAACGGTTGGGCCTTG  
 CCGGCTGTGCGGT**ATGT**CGCGACAGAGCACCTGTACAGCTTCTTCCCCAAGTCTCCGGCGCTGAGTGATGCCAAC  
 AAGGCCTCGGCCAGGGCCTCACGCGAAGGCGGCCGTGCCGCCGTGCCCCCGGGGCCTCTCTTCCCCAGGCGGG  
 GATGCGGCCTGGAGCGAGGCTGGGCCTGGGCCAGGCCCTTGGCGCGATCCGCGTCACCGCCCAAGGCGAAGAAC  
 CTCAACGGAGGGCTGCGGAGATCGGTAGCGCCTGTGCCCCACCAGTTGTGACTTCTCACCAGGAGATTTGGTT  
 TGGGCCAAGATGGAGGGTTACCCCTGGTGGCCTTGTCTGGTTTACAACCACCCCTTTGATGGAACATTCATCCGC  
 GAGAAAGGGAAATCAGTCCGTGTTTCATGTACAGTTTTTTGATGACAGCCCAACAAGGGGCTGGGTTAGCAAAAGG  
 CTTTTAAAGCCATATACAGGTTCAAATCAAAGGAAGCCAGAAGGGAGGTCATTTTTACAGTGCAAAGCCTGAA  
 ATACTGAGAGCAATGCAACGTGCAGATGAAGCCTTAAATAAAGACAAGATTAAGAGGCTTGAATTGGCAGTTTGT  
 GATGAGCCCTCAGAGCCAGAAGAGGAAGAAGAGATGGAGGTAGGCACAACCTTACGTAACAGATAAGAGTGAAGAA  
 GATAATGAAATTGAGAGTGAAGAGGAAGTACAGCCTAAGACACAAGGATCTAGGCGAAGTAGCCGCCAAATAAAA  
 AAACGAAGGGTCATATCAGATTCTGAGAGTGACATTGGTGGCTCTGATGTGGAATTTAAGCCAGACACTAAGGAG  
 GAAGGAAGCAGTGATGAAATAAGCAGTGGAGTGGGGGATAGTGAGAGTGAAGGCCTGAACAGCCCTGTCAAAGTT  
 GCTCGAAAGCGGAAGAGAATGGTGACTGGAATGGCTCTCTTAAAAGGAAAAGCTCTAGGAAGGAAACGCCCTCA  
 GCCACCAAACAAGCAACTAGCATTTCATCAGAAACCAAGAATACTTTGAGAGCTTTCTCTGCCCTCAAATTTCT  
 GAATCCCAAGCCACGTTAGTGGAGGTGGTGATGACAGTAGTCGCCCTACTGTTTGGTATCATGAACTTTAGAA  
 TGGCTTAAGGAGGAAAAGAGAAGAGATGAGCACAGGAGGAGGCCTGATCACCCCGATTTTGATGCATCTACACTC  
 TATGTGCTGAGGATTTCTCAATTCTTGTACTCCTGGGATGAGGAAGTGGTGGCAGATTAAGTCTCAGAACCTT  
 GATCTTGTCTATCTGTTACAAGGTGGGGAATTTTATGAGCTGTACCACATGGATGCTCTTATTGGAGTCAGTGAA  
 CTGGGGCTGGTATTCATGAAAGGCAACTGGGCCCATCTGGCTTTCCTGAAATTGCATTTGGCCGTTATTCAGAT  
 TCCCTGGTGCAGAAGGGCTATAAAGTAGCACGAGTGAACAGACTGAGACTCCAGAAATGATGGAGGCACGATGT  
 AGAAAGATGGCACATATATCCAAGTATGATAGAGTGGTGAGGAGGGAGATCTGTAGGATCATTACCAAGGGTACA  
 CAGACTTACAGTGTGCTGGAAGGTGATCCCTCTGAGAACTACAGTAAGTATCTTCTTAGCCTCAAAGAAAAAGAG  
 GAAGATTCTTCTGGCCATACTCGTGCATATGGTGTGTGCTTTGTTGATACTTCACTGGGAAAGTTTTTCATAGGT  
 CAGTTTTTCAGATGATCGCCATTGTTTCGAGATTTAGGACTCTAGTGGCACACTATCCCCAGTACAAGTTTTATTT  
 GAAAAAGGAAATCTCTCAAAGGAACTAAAACAATTCTAAAGAGTTTCATTGTCCTGTTCTCTTCAGGAAGGTCTG  
 ATACCCGGCTCCCAGTTTTTGGGATGCATCCAAAACCTTTGAGAACTCTCCTTGAGGAAGAATATTTTAGGGAAAAG  
 CTAAGTGATGGCATTGGGGTGATGTTACCCAGGTGCTTAAAGGTATGACTTCAGAGTCTGATTCCATTGGGTTG  
 ACACCAGGAGAGAAAAGTGAATTGGCCCTCTCTGCTCTAGGTGGTTGTGTCTTCTACCTCAAAAAATGCCTTATT  
 GATCAGGAGCTTTTATCAATGGCTAATTTTGAAGAATATATTCCCTTGGAATCTGACACAGTCAGCACTACAAGA  
 TCTGGTGCTATCTTACCAAAGCCTATCAACGAATGGTGCTAGATGCAGTGACATTAACAACCTTGAGATTTTT  
 CTGAATGGAACAAATGGTTCTACTGAAGGAACCTACTAGAGAGGGTTGATACTTGCCATACTCCTTTTGGTAAG  
 CGGCTCCTAAAGCAATGGCTTTGTGCCCACTCTGTAAACCATTATGCTATTAATGATCGTCTAGATGCCATAGAA  
 GACCTCATGGTTGTGCCTGACAAAATCTCCGAAGTTGTAGAGCTTCTAAAGAAGCTTCCAGATCTTGAGAGGCTA  
 CTCAGTAAATTCATAATGTTGGGTCTCCCTGAAGAGTCAGAACCACCCAGACAGAGGGCTATAATGTATGAA  
 GAACTACATACAGCAAGAAGAAGATTATTGATTTTCTTCTGCTCTGGAAGGATTCAAAGTAATGTGTAAAATT  
 ATAGGGATCATGGAAGAAGTTGCTGATGGTTTTAAGTCTAAAAATCCTTAAGCAGGTCATCTCTCTGCAGACAAA  
 AATCCTGAAGGTCGTTTTCTGATTTGACTGTAGAATTGAACCGATGGGATACAGCCTTTGACCATGAAAAGGCT  
 CGAAAGACTGGACTTATTACTCCCAAAGCAGGCTTTGACTCTGATTATGACCAAGCTCTTGCTGACATAAGAGAA  
 AATGAACAGAGCCTCCTGGAATACCTAGAGAAACAGCGCAACAGAATTGGCTGTAGGACCATAGTCTATTGGGGG  
 ATTGGTAGGAACCGTTACCAGCTGGAATTCCTGAGAATTTCAACACTCGCAATTTGCCAGAAGAATACGAGTTG  
 AAATCTACCAAGAAGGGCTGTAAACGATACTGGACCAAACTATTGAAAAGAAGTTGGCTAATCTCATAAATGCT  
 GAAGAACGGAGGGATGTATCATTGAAGGACTGCATGCGGCGACTGTTCTATAACTTTGATAAAAAATTACAAGGAC  
 TGGCAGTCTGCTGTAGAGTGTATCGCAGTGTGGATGTTTTACTGTGCTGGCTAACTATAGTCGAGGGGGTGAT  
 GGTCTATGTGTGCGCCAGTAATTCTGTTGCCGGAAGATACCCCCCTTCTTAGAGCTTAAAGGATCACGCCAT  
 CCTTGCAATTACGAAGACTTTTTTTGGAGATGATTTTATTCTAATGACATTCTAATAGGCTGTGAGGAAGAGGAG  
 CAGGAAAATGGCAAAGCCTATTGTGTGCTTGTACTGGACCAAAATATGGGGGGCAAGTCTACGCTTATGAGACAG  
 GCTGGCTTATTAGCTGTAATGGCCCAGATGGGTTGTTACGTCCCTGCTGAAGTGTGCAGGCTCACACCAATTGAT

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**FIGURE 740B**

AGAGTGTTTACTAGACTTGGTGCCTCAGACAGAATAATGTCAGGTGAAAGTACATTTTTTGTGGAATTAAGTGAA  
 ACTGCCAGCATACTCATGCATGCAACAGCACATTCTCTGGTGCTTGTGGATGAATTAGGAAGAGGTACTGCAACA  
 TTTGATGGGACGGCAATAGCAAATGCAGTTGTTAAAGAACTTGCTGAGACTATAAAATGTCGTACATTATTTTCA  
 ACTCACTACCATTCATTAGTAGAAGATTATTCTCAAATGTTGCTGTGCGCCTAGGACATATGGCATGCATGGTA  
 GAAAATGAATGTGAAGACCCCAGCCAGGAGACTATTACGTTCCCTCTATAAATTCATTAAGGGAGCTTGTCTTAA  
 AGCTATGGCTTTAATGCAGCAAGGCTTGCTAATCTCCAGAGGAAGTTATTCAAAGGGACATAGAAAAGCAAGA  
 GAATTTGAGAAGATGAATCAGTCACTACGATTATTTGCGGAAGTTTGCCTGGCTAGTGAAAGGTCAACTGTAGAT  
 GCTGAAGCTGTCCATAAATTGCTGACTTTGATTAAAGGAATTATAGACTGACTACATTGGAAGCTTTGAGTTGACT  
 TCTGACCAAAGGTGGTAAATTCAGACAACATTATGATCTAATAAACTTTATTTTTTAAAAATGA

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**FIGURE 741**

MSRQSTLYSFFPKSPALSDANKASARASREGGRAAAAPGASPSGGDAWSEAGPGPRPLARSASPPKAKNLNGG  
 LRRSVAPAAPTSCDFSPGDLVWAKMEGYPPWPCLVYNHPFDGTFIREKGKSVRVHVQFFDDSPTRGWVSKRLLKP  
 YTGSKSKEAQKGGHFYSAPKPEILRAMQRADEALNKDKIKRLELAVCDEPSEPEEEEEEMEVTYVTDKSEEDNEI  
 ESEEEVQPKTQGSRRSSRQIKKRRVISDSSEDIGGSDVEFKPDTKEEGSSDEISSGVGDSESEGLNSPVKVARKR  
 KRMVTGNGSLKRKSSRKETPSATKQATSISSETKNTLRAFSAPQNSESAHVSGGGDDSSRPTVWYHETLEWLKE  
 EKRRDEHRRRPDHPDFDASTLYVPEDFLNSCTPGMRKWWQIKSQNFDLVICYKVGKFYELYHMDALIGVSELGLV  
 FMKGNWAHSGFPEIAFGRYSDSLVQKGYKVARVEQTETPEMMEARCRKMAHISKYDRVVRREICRIITKGTQYTS  
 VLEGDPSENYSKYLLSLKEKEEDSSGHTRAYGVCFVDTSLGKFFIGQFSDDRHCSTFRFTLVAHYPPVQVLFKGN  
 LSKETKTIKSSSLCSLQEGIPGSQFWDASKTLRLLLEEEYFREKLSDGIGVMLPQVLKGMTSESDSIGLTPGE  
 KSELALSALGGCVFYLLKCLIDQELLSMANFEEYIPLSDTVSTTRSGAIFTKAYQRMVLDVATLNNLEIFLNGT  
 NGSTEGTLLERVDTCHTPFGKRLKQWLCAPLCNHYAINDRLDAIEDLMVVPDKISEVVELLKKLPDLERLLSKI  
 HNVGSPLKSQNHDPDSRAIMYEETYSKKKIIDFLSALEGFKVMCKIIGIMEEVADGFKSKILKQVISLQTKNPEG  
 RFPDLTVELNRWDTAFDHEKARKTGLITPKAGFDSYDQALADIRENEQSLLEYLEKQRNRIGCRTIVYWGIGRN  
 RYQLEIPENFTTRNLPEEYELKSTKKGCKRYWTKTIEKKLANLINAEERRDVSLKDCMRRLFYNFDKNYKDWQSA  
 VECIAVLVDVLLCLANYSRGGDGPMCRPVILLPEDTPPFLELKGSRHPCITKTFFGDDFIPNDILIGCEEEEQENG  
 KAYCVLVTGPNMGGKSTLMRQAGLLAVMAQMGCVPAEVCRLTPIDRVFTRLGASDRIMSGESTFFVELSETASI  
 LMHATAHSLVLVDELGRGTATFDGTAIANAVVKELAETIKCRTLFSTHYHSLVEDYSQNVAVRLGHMACMVENEC  
 EDPSQETITFLYKFIKGACPKSYGFNAARLANLP EEVIQKGHRKAREFEKMNQSLRLRFREVCLASERSTVDAEAV  
 HKLLTLIKEL



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**FIGURE 742**

GACGCCGACG**ATGA**AAGACACCGTGGAAGGTTCTTCTGGGACTGCTGGGTGCTGCTGCGCTTGTCACCATCATCAC  
CGTGCCCGTGTTCTGCTGAACAAAGGCACAGATGATGCTACAGCTGACAGTCGCAAACTTACACTCTAACTGA  
TTACTTAAAAAATACTTATAGACTGAAGTTATACTCCTTAAGATGGATTTTCTAGATCATGAATATCTCTACAAACA  
AGAAAATAATATCTTGGTATTCAATGCTGAATATGGAAACAGCTCAGTTTTCTTGGAGAACAGTACATTTGATGA  
GTTTGGACATTCTATCAATGATTATTCAATATCTCCTGATGGGCAGTTTTATTCTCTTAGAATACAACACTACGTGAA  
GCAATGGAGGCATTCTACACAGCTTCATATGACATTTATGATTTAAATAAAAAGGCAGCTGATTACAGAAGAGAG  
GATTCCAAACAACACACAGTGGGTCACATGGTCACCAGTGGGTCATAAATTGGCATATGTTTGGAAACAATGACAT  
TTATGTTAAATTTGAACCAAATTTACCAAGTTACAGAATCATATGGACGGGGAAGAAGATATAATATATAATGG  
AATAACTGACTGGGTTTATGAAGAGGAAGTCTTCAGTGCCTACTCTGCTCTGTGGTGGTCTCCAAACGGCACTTT  
TTTAGCATATGCCCAATTTAACGACACAGAAGTCCCACTTATTGAATACTCCTTCTACTCTGATGAGTCACTGCA  
GTACCCAAAGACTGTACGGGTTCCATATCCAAAGGCAGGAGCTGTGAATCCAAGTGTAAAGTTCTTTGTTGTAAA  
TACAGACTCTCTCAGCTCAGTCACCAATGCAACTTCCATACAAATCACTGCTCCTGCTTCTATGTTGATAGGGGA  
TCACTACTTGTGTGATGTGACATGGGCAACACAAGAAAGAATTTCTTTGCAGTGGCTCAGGAGGATTGAGAACTA  
TTCGGTCATGGATATTTGTGACTATGATGAATCCAGTGGAAAGATGGAACTGCTTAGTGGCACGGCAACACATTGA  
AATGAGTACTACTGGCTGGGTTGGAAGATTTAGGCCTTCAGAACCTCATTTTACCCTTGATGGTAATAGCTTCTA  
CAAGATCATCAGCAATGAAGAAGGTTACAGACACATTTGCTATTTCCAAATAGATAAAAAAGACTGCACATTTAT  
TACAAAAGGCACCTGGGAAGTCATCGGGATAGAAGCTCTAACCACTGATTATCTATACTACATTAGTAATGAATA  
TAAAGGAATGCCAGGAGGAAGGAATCTTTATAAAATCCAAGTGTAGTACTATACAAAAGTGACATGCCTCAGTTG  
TGAGCTGAATCCGGAAGGTGTCAGTACTATTCTGTGTCATTGAGTAAAGAGGCGAAGTATTATCAGCTGAGATG  
TTCCGGTCTGCTGCTGCCCTCTATACTCTACACAGCAGCGTGAATGATAAAGGGCTGAGAGTCTTGGGAAGACAA  
TTCAGCTTTGGATAAAATGCTGCAGAATGTCCAGATGCCCTCCAAAAAAGTGGACTTCATTATTTTGAATGAAAC  
AAAAATTTGGTATCAGATGATCTTGCCTCCTCATTTTGTATAAATCCAAGAAATATCCTCTACTATTAGATGTGTA  
TGCAGGCCCATGTAGTCAAAAAGCAGACACTGTCTTCAGACTGAACTGGGCCACTTACCTTGCAAGCACAGAAAA  
CATTATAGTAGCTAGCTTTGATGGCAGAGGAAGTGGTTACCAAGGAGATAAGATCATGCATGCAATCAACAGAAG  
ACTGGGAACATTTGAAGTTGAAGATCAAATTTGAAGCAGCCAGACAATTTTCAAAAATGGGATTTGTGGACAACAA  
ACGAATTGCAATTTGGGGCTGGTCATATGGAGGGTACGTAACCTCAATGGTCTGGGATCAGGAAGTGGCGTGT  
CAAGTGTGGAATAGCCGTGGCGCCTGTATCCCGGTGGGAGTACTATGACTCAGTGTACACAGAACGTTACATGGG  
TCTCCCAACTCCAGAAGACAACCTTGACCATTACAGAAATTCACAGTCATGAGCAGAGCTGAAAATTTTAAACA  
AGTTGAGTACCTCCTTATTATGGAACAGCAGATGATAACGTTCACTTTTACGAGTCAGCTCAGATCTCCAAAGC  
CCTGGTCGATGTTGGAGTGGATTTCCAGGCAATGTGGTATACTGATGAAGACCATGGAATAGCTAGCAGCACAGC  
ACACCAACATATATATACCCACATGAGCCACTTCATAAAACAATGTTTCTCTTTACCT**TAG**CACCTCAAAATACC  
ATGCCATTTAAAGCTTATTAATAAATCATTTTTGTTTTTATTATCTCAAACTGCACTGTCAAGATGATGATGATC  
TTTAAAAATACACACTCAAATCAAGAACTTAAGGTTACCTTTGTTCCCAAATTTTATACCTATCATCTTAAGTAG  
GGACTTCTGTCTTCAACACAGATTATTACCTTACAGAAGTTGAATTATCCGGTCCGGTTTTATTGTTTTAAATC  
ATTTCTGCATCAGCTGCTGAAACAACAATAGGAATTGTTTTATGGAGGCTTTGCATAGATTCCCTGAGCAGGA  
TTTAAATCTTTTTCTAACTGGACTGGTTCAAATGTTGTTCTCTTTTAAAGGGATGGCAAGATGTGGGCAGTGA  
TGCTACTAGGGCAGGGACAGGATAAGAGGGATTAGGGAGAGAAGATAGCAGGGCATGGCTGGGAACCCAAGTCCA  
AGCATACCAACACGACCAGGCTACTGTGAGCTCCCTCGGAGAAAAGTGTGAGTCTGCGTGTGAACAGCTCTTC  
TCCTTTAGAGCACAAATGGATCTCGAGGGATCTCCATACCTACCAGTTCTGCGCCTCGAGGCCGCGACTCTAGA

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**FIGURE 743**

MKTPWKVLLGLLGAAALVTIITVPVLLNKGTDADSRKTYTLTDYLNKTYRLKLYSLRWISDHEYLYKQENN  
ILVFNAEYGNSSVFLENSTFDEFGHSINDYSISPDGQFILLEYNVVKQWRHSYTASYDIYDLNKRQLITEERIPN  
NTQWVTWSPVGHKLAYVWNNDIYVKIEPNLPSYRITWTGKEDIYNGITDWVYEEVEFSAYSALWWSPNGTFLAY  
AQFNDTEVPLIEYSFYSDSLQYPKTVRVPYPKAGAVNPTVKFFVNTDSLSSVTNATSIQITAPASMLIGDHYL  
CDVTWATQERISLQWLRRIQNYSVMDICDYDESSGRWNCLVARQHIEMSTTGWVGRFRPSEPHTLDGNSFYKII  
SNEEGYRHICYFQIDKKDCTFITKGTWEVIGIEALTSYLYYISNEYKGMPPGGRNLYKIQLSDYTKVTCLSCELN  
PERCQYYSVSFSKEAKYYQLRCSGPGPLPLYTLHSSVNDKGLRVLEDNSALDKMLQNVQMPSKKLDFIILNETKFW  
YQMILPPHFDKSKKYPLLLDVYAGPCSQKADTVFRLNWATYLASTENIIVASFDRGSGYQGDKIMHAINRRLGT  
FEVEDQIEAARQFSKMGFVDNKRIAIWGSYGGYVTSMLVLSGSGVFKCGIAVAPVSRWEYYDSVYTERYMGLPT  
PEDNLDHYRNSTVMSRAENFKQVEYLLIHGTADDNVHFQQAQISKALVDVGVDQAMWYTDEDHGIASSTAHQH  
IYTHMSHFQKCFSLP

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**FIGURE 744**

CCGGTCGGATGCCGGACCGGGGGCACCCTGAGGCGGTGGGTCCCCGACCTGCGAGACAGGTTTGGAAAGCCCCCG  
CTGCGCCCAGTCCGTGCGGACCGCGAGGCCGCGGGCGGGTGGAGGCGCGTCTCCGGCACG**ATGA**AGGATTTGGGG  
GCAGAGCACTTGGCAGGTCATGAAGGGGTCCAACCTTCTCGGGTTGTTGAACGTCTACCTGGAACAAGAAGAGAGA  
TTCCAACCTCGAGAAAAAGGGCTGAGTTTGATTGAGGCTACCCCGGAGAATGATAACACTTTGTGTCCAGGATTG  
AGAAATGCCAAAGTTGAAGATTTAAGGAGTTTAGCCAACCTTTTTTGGATCTTGCACTGAACTTTTGTCTGGCT  
GTCAATATTTTGGACAGGTTCTTGGCTCTTATGAAGGTGAAACCTAAACATTTGTCTTGCACTTGAGTCTGTTCT  
TTTTTGCTGGCTGCTAGAAATAGTTGAAGAAGACTGCAATATTCATCCACTCATGATGTGATCCGGATTAGTCAG  
TGTAATGTACTGCTTCTGACATAAAACGGATGGAAAAAATAATTCAGAAAAATTGCACTATGAATTGGAAGCT  
ACTACTGCCTTAACTTTTTGCACTTATACCATACTATTATACTTTGTCATACTTCAGAAAGGAAAGAAATACTG  
AGCCTTGATAAACTAGAAGCTCAGCTGAAAGCTTGCAACTGCCGACTCATCTTTCAAAGCAAAACCATCTGTA  
TTAGCCTTGTGCCTTCTCAATTTGGAAGTGGAACCTTTGAAATCTGTTGAATTACTGGAATTTCTCTTGCTAGTT  
AAAAAACATTCCAAGATTAATGACACTGAGTTCTTCTACTGGAGAGAGTTGGTTTCTAAATGCCTAGCCGAGTAT  
TCTTCTCCTGAATGTTGCAAACAGATCTTAAGAAGTTGGTTTGGATCGTTTCAAGGCGCACAGCCAGAACCTC  
CACAACAGCTACTATAGTGTTCCTGAGCTGCCAACGATACCTGAGGGGGGTGTTTTGATGAAAGTGAAAGTGAG  
GACTCTTGGAAGATATGAGTTGTGGAGAGGAGAGTCTCAGCAGCTCTCCTCCCAGTGATCAAGAGTGCACCTTC  
TTTTTCAACTTCAAAGTGGCACAAACACTGTGCTTTCCATCT**TAG**AAATCTGATTGTTCTGTGAGAATTTATATT  
TACAGGGTTTCAAAGCAATAAATGGGGGAATAGGTAGTTTCCTGGTTTAGCCCCCATCTAGTCAGGAATTAATAT  
ACTGGAATACCTACCTTCTATTTGTTATTTCAGATCAGATCTGGCCTATTTTCATATTTATCCTAAGCCATCAAA  
GGGGTAGTGCTCTTAAACCATTAAACAGTACCTTAGACATTGGCACTTTATTTTTCTCGTAGATCTTTAGCTACT  
TTGGGGAGGAGGGAAGGTGCTGATACCTTCAATTTGTTACTTTTCAAGATTTTAAAAATAACTAGTGTAGCTTA  
TCTTAAACATTTTATAAAACCTTCAGATGTCTTTAAGCAGATTGGAAGTATGCAAGTGCTTCCTTAGCAGGGACA  
GTGGATAATCCTTAATGGTTTATCATAGATTTACCCCTCCCCCTTCTCAGAAGAGTGAGTATGCTCTTAAATGT  
CAAACACATTTTGTGTGTTTTGTTTTTAAATGATCAGTGTCTATTTGATGTGATGCAGATCTTATAAATTTGGG  
AATTATAATATTGACATTTCTGTGATTTTTATATATGTAATGTCTTAATTGAGATTTGTGTTAAGGCAGAAATAA  
TTAGGCTAGGGCTCTTAGTTTTTATTCTATTGCCCCAAGTATTGTCAAACCTATGGTATTATTTAATGTTACTT  
TAAAAATCCATAATCTGCTAGTTTTGCATGTACTTATATGAAAACAGTGCAGTAAGTTGAAAACCTCAGTATCTAT  
GGAAATTGATAAATGTTGATCTGGTGTAGTATATTTATCCGCATTTTCTTATATTAATAAATGTTCTGCATGATT  
ACATTTTATTGCTTTGT

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**FIGURE 745**

MKDLGAEHLAGHEGVQLLGLLNIVYLEQEERFQPREKGLSLIEATPENDNTLCPGLRNAKVEDLRSLANFFGSCTE  
TFVLAVNILDRLALMKVKPKHLSCIGVCSFLLAARIVEEDCNIPSTHDVIRISQCKCTASDIKMEKIISEKLH  
YELEATTALNFLHLYHTIILCHTSERKEILSLDKLEAQLKACNCRLIFSKAKPSVLALCLLNLEVETLKSVELLE  
ILLLVKKHSHKINDTEFFYWRELVSKCLAEYSSPECCKPDLKKLVWIVSRRTAQNHLNSYYSVPELPTIPEGGCFD  
ESESEDSCEDMSCGEESLSSSPPSDQECTFFNFKVAQTLCFPS

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**FIGURE 746**

**ATG**GCCTGGATGCTGTTGCTCATCTTGATCATGGTCCATCCAGGATCCTGTGCTCTCTGGGTGTCCAGCCCCCT  
 GAGATTCGTACCCTGGAAGGATCCTCTGCCTTCCTGCCCTGCTCCTTCAATGCCAGCCAAGGGAGACTGGCCATT  
 GGCTCCGTCACGTGGTTCCGAGATGAGGTGGTTCCAGGGAAGGAGGTGAGGAATGGAACCCAGAGTTCAGGGGC  
 CGCCTGGCCCCACTTGCTTCTTCCCGTTTCCCTCCATGACCACCAGGCTGAGCTGCACATCCGGGACGTGCGAGGC  
 CATGACGCCAGCATCTACGTGTGCAGAGTGGAGGTGCTGGGCCTTGGTGTCGGGACAGGGAATGGGACTCGGCTG  
 GTGGTGGAGAAAGAACATCCTCAGCTAGGGGCTGGTACAGTCCTCCTCCTTCGGGCTGGATTCTATGCTGTCAGC  
 TTTCTCTCTGTGGCCGTGGGCAGCACCGTCTATTACCAGGGCAAATGCCACTGTCACATGGGAACACACTGCCAC  
 TCCTCAGATGGGCCCCGAGGRGTGATTCCAGAGCCCAGATGTCCC**TAG**

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**FIGURE 747**

MAWMLLLILIMVHPGSCALWVSQPPEIRTLEGSSAFLPCSFNASQGRLAIGSVTWFRDEVVPGKEVRNGTPEFRG  
RLAPLASSRFLHDHQAEHIRDVRGHDASIYVCRVEVLGLGVGTGNGTRLVVEKEHPQLGAGTVLLLRAGFYAVS  
FLSVAVGSTVYYQGKCHCHMGTHCHSSDGPRGVIPEPRCP

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**FIGURE 748**

GGGGAGAATCTGGTGGATGCTGGACCTTGCTGCTGCTGCTACTGCTGTTTTCCAGGGGCTGCAGAGCATGGACTGT  
TAAATCTTGCACTTCTTCTGAGTGAGCTGAATCTTGCCGCCAGG**ATG**GGGAAACAGAACAGCAAGCTGCGCCCC  
GAGGTCATGCAGGACTTGCTGGAAAGCACAGACTTTACAGAGCATGAGATCCAGGAATGGTATAAAGGCTTCTTG  
AGAGACTGCCCCAGTGGACATTTGTCAATGGAAGAGTTTAAAGAAATATATGGGAACTTTTTCCCTTATGGGGAT  
GCTTCCAAATTTGCAGAGCATGTCTTCCGCACCTTCGATGCAAATGGAGATGGGACAATAGACTTTAGAGAATTC  
ATCATCGCCTTGAGTGTAACCTTCGAGGGGGAAGCTGGAGCAGAAGCTGAAATGGGCCTTCAGCATGTACGACCTG  
GACGGAAATGGCTATATCAGCAAGGCAGAGATGCTAGTGATCGTGACGGCAATCTATAAGATGGTTTTCTCTGTGA  
ATGAAAATGCCTGAAGATGAGTCAACCCACAGAGAAAAGAACAGAAAAGATCTTCCGCCAGATGGACACCAATAGA  
GACGGAAAACCTCCCTGGAAGAGTTTATCCGAGGAGCCAAAAGCGACCCGTCATTGTGCGCCTCCTGCAGTGC  
GACCCGAGCAGTGCCGGCCAGTTCT**TGAG**CCCTGCGCCACCAATCGAATTGTAGAGCTGCTTGTGTTCCCTTTTG  
ATTCTTCTTTTTAACAATTTTTTTTTTTTTTTTGGCCAAACAATATCAATGGTGATGCCGTCCCCTGTGCGGTCTGA  
TGCGCCTTCCCTCCGTGACGCCTTCAGCCTCTTTTGTCTGGATGCTTCGTGGGAATGCCAGAGCCCCAGTGTGC  
TTGTGGAGAGCATGGACAGACTTCGTGGTGTTTCAATGTTTGATGATTTTTAATCGTTACTATTATTTCTTTTTAT  
TCTAATGTCTCTGTTCTAAAACGTAAGACTCGGGGGTTGGGGCAAAGAAGGGAAACCCATCCAGTCTGTGATT  
CTATTGCAAGCTTCAAGGGGCTTTTGTGTTGAAAGACAAAACCTCCCCACCTGGGTCTGTTGTACACGTGCCGTAG  
GGGTGATGGATGGCACCGGATGCTGGATTCCCCAAGAACAAGTTACCCTCTGGGGTGAGGCTATTCCAGCGAGCT  
GGGACATTTCCCATGGGGGCCACTCCCCCTCTCTTCCCCAGCAGGCTGTAGTTTCTAAGCTGTGAACATTTCAA  
GATAAATTAACAGAGGAGAGGAAAAGATGGCTCAGCTATTTTTTACAGGTTTACACTAGTTGAGCTAATATGC  
GTGTCTTTGGAAATTAACACAAATGGTAACATATTCAAAACCAGACCCATCTTGTGCTTATTGTGATAAAAT  
AAAAAGACGGCTGTATATAACATATTGGGTAATGCAGACCAAATTAAGTGTTTTGCCTTGTTTAAATGAAATGCA  
TGTTTAGTGAGCACTAATAACAATCTTATTCCAGAAGACTGTTTTTAGTAGCTTATTGTGAAGTAAGACAACATA  
ATGAATGTCTGTCTTGTGTTGGAAGTCATATCTGTCTTTGCACAAATGTACCAATCGACAAGTATATTTATATAT  
TCCATAAAAATACAAAGTAACCCTGACTAGGGCCCACTTTAATTTTGAATGCATTTCCAGAGTGGCCATGCCTA  
GAGGGCAGATGCAGAGCAGGTGGTAGTGGGACAGGACAATTGGAGCACAGGAATGTTAACATGTATGACAGGGGA  
CCAGTAGGGTGTTTTCCCTCTCAGGCCCAGCAGCCATTGACAGCATTAGACTGGCGGCATGGTGCTTTTCTGAG  
CAGATCAATACTCTGCAGACTCGAAAAACATCACATACATTCTTGGAACCTCCAGTGGTTTAAATCTATGTGCA  
TGGTTAGGGAGCCAGGCCTGGAATATTTCAGTTTCCCTGCCCCGTGTTAAAGAATCAGAGGTTGGGCAGTCATCAA  
TTCATCATAAAGACATGGGCAAGTGCTGTGTTTCCAAGGCCCCCTATGGAGAATCCAAAAGTATTTTCCA  
TTGCCGTGCTCTTTGAATGCAGACTTCTATTTCCAGAAGTGACAGCACAAGTCTGAGTTGCTGTTTGGTCTGGTG  
ACCTCAGACACACTAATTTGAATTGAAAGCTAAGAGTAAAAATTTGCTGGTTACAGGCGAGTCATACTCTTGCAA  
GTAGTTAGCAAAGGGAGGCCCAAATTCTCAAGGTTGTTGATGGGGAACCTGCCACTAAGAGAAGGCAGAGAGGTC  
CTAGTGGGTATATTTGCTGCCAAGCCACTTGCCAAAAGAAGAGGAACACAGAAAGAGAGACATCATGACCAGGA  
GAAAAATGTGACTAGACATGCTAACCTCCAGGTTTTTATATATGACTTGAGTCTGCTGTAATTGGCAGCAGAAAT  
CCAAATTTGTATGGTAGACCAAAAAGAACCAATCCATAGGGTGAAATTTTGAGACCTAGACTCTGTAAAAATAA  
TCCTAGTCTTCCCTCAGGGGTCAGTTCCCTCACAGTGGTTCTGTACCAAAACTTGCCAAATTCCTCCATGGCCAAG  
TGTTAAATCTGTGTTTGGAAATAGCGAATTAACCTAAGACACAGAAGGCAGACTGGGTGAGGAGACCTAGCAT  
GCCCTATTGGCAGTGCTCAGGAGCTGCATCCCACTTTTCCCTGCTCTGAATCGAAGTCCTAGTTCCCTTCCCTTTGA  
TTCTCCTTTGGTAGGTGGAATCAGTTAATGTTTTGAGAAACCTGCCTGGGCTCTGCCCTTAGTCATGACATCTCG  
CTGAGCCAGACCCACTCTGTTCCCTGGAACCTAGAGCTGGAGTGAGGAGTAGAGGTCTCCGGCTATTCCAGAAAG  
AAAAGTGAGCCACATGCAGGCTGATGAATGCCGACACTTCCAGAATGTATAGAAATAGTCCCTGTCTGGCCTGC  
CACTGACCCGTGTCTGTATTTTCTCGGAGGTGTTTTTCTCCTTCTCCTTCCCAGGAAGGTCTTTGTATGTGCAAT  
CCAGTGCACTCAAGTTTGGCCAAGGGACTCCACAGCACCCAGAGGACTGCATGCCTCAAGGTTTATGTCACTCCT  
CTGCTGGGCTGTTTCAATTGTCTGTTGTTTCAAGGACCTTTGGAATAAAACCTGTTCTGTCCCAATAAAACC  
AGCCTGTGATGTTCAAGGGACTGGAATAAAGTGCTTACGACCTGAAGGATTCTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 749**

MGKQNSKLRPEVMQDLLESTDFTEHEIQEWYKGFLRDCPSGHLMEEFKKIYGNFFPYGDASKFAEHVFRTFDAN  
GDGTIDFREFI IALSVTSRGKLEQKLKWAFSMYDLGNGYISKAEMLVIVQAIYKMVSSVMKMPEDESTPEKRTE  
KIFRQMDTNRDGKLSLEEFIRGAKSDPSIVRLLQCDPSSAGQF



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**FIGURE 750**

CACCTCGCTGCTCCAGCCTCTGGGGCGCATTCCAACCTTCCAGCCTGCGACCTGCGGAGAAAAAAATTACTTAT  
TTTCTTGCCCCATACATACCTTGAGGCGAGCAAAAAAATTAAATTTTAACCATGAGGGAAATCGTGACATCCAG  
GCTGGTCAGTGTGGCAACCAGATCGGTGCCAAGTTCTGGGAGGTGATCAGTGATGAACATGGCATCGACCCACC  
GGCACCTACCACGGGGACAGCGACCTGCAGCTGGACCGCATCTCTGTGTACTACAATGAAGCCACAGGTGGCAAA  
TATGTTCTCGTGCCATCCTGGTGGATCTAGAACCTGGGACCATGGACTCTGTTTCGCTCAGGTCCTTTTGCCAG  
ATCTTTAGACCAGACAACCTTGTATTTGGTCAGTCTGGGGCAGGTAACAACCTGGGCCAAAGGCCACTACACAGAG  
GGCGCCGAGCTGGTTGATTCTGTCTTGATGTGGTACGGAAGGAGGCAGAGAGCTGTGACTGCCTGCAGGGCTTC  
CAGCTGACCCACTCACTGGGCGGGGGCACAGGCTCTGGAATGGGCACTCTCCTTATCAGCAAGATCCGAGAAGAA  
TACCCTGATCGCATCATGAATACCTTCAGTGTGGTGCCTTCACCCAAAGTGTCTGACACCGTGGTCGAGCCCTAC  
AATGCCACCCTCTCCGTCCATCAGTTGGTAGAGAATACTGATGAGACCTATTGCATTGACAACGAGGCCCTCTAT  
GATATCTGCTTCCGCACTCTGAAGCTGACCACACCAACCTACGGGGATCTGAACCACCTTGTCTCAGCCACCATG  
AGTGGTGTCAACACCTGCCTCCGTTTCCCTGGCCAGCTCAATGCTGACCTCCGCAAGTTGGCAGTCAACATGGTC  
CCCTTCCCACGTCTCCATTTCTTTATGCTTGGCTTTGCCCCCTCTCACCAGCCGTGGAAGCCAGCAGTATCGAGCT  
CTCACAGTGCCGGAACCTACCCAGCAGGTCTTCGATGCCAAGAACATGATGGCTGCCTGTGACCCCCGCCACGGC  
CGATACCTCACCGTGGCTGCTGTCTTCCGTGGTCGGATGTCCATGAAGGAGGTCGATGAGCAGATGCTTAACGTG  
CAGAACAAGAACAGCAGCTACTTTGTGGAATGGATCCCCAACAAATGTCAAGACAGCCGTCTGTGACATCCCACCT  
CGTGGCCTCAAGATGGCAGTCACCTTCATTGGCAATAGCACAGCCATCCAGGAGCTCTTCAAGCGCATCTCGGAG  
CAGTTCACTGCCATGTTCCGCCGAAGGCCTTCCCTCACTGGTACACAGGCGAGGGCATGGACGAGATGGAGTTC  
ACCGAGGCTGAGAGCAACATGAACGACCTCGTCTCTGAGTATCAGCAGTACCAGGATGCCACCGCAGAAGAGGAG  
GAGGATTTCCGTGAGGAGGCCGAAGAGGAGGCCTAAGGCAGAGCCCCCATCACCTCAGGCTTCTCAGTTCCCTTA  
GCCGTCTTACTCAACTGCCCTTTTCTCTCCCTCAGAATTTGTGTTTGTCTGCCTCTATCTTGTTTTTTGTTTTTT  
CTTCTGGGGGGGGTCTAGAACAGTGCCTGGCACATAGTAGGCGCTCAATAAATACTTGTTTGTTGAATGTCTCCT  
CTCTCTTTCCACTCTGGGAAACCTAGGTTTCTGCCATTCTGGGTGACCTGTATTTCTTTCTGGTGCCATTCCA  
TTTGTCCAGTTAATACTTCTCTTAAAAATCTCCAAGAAGCTGGGTCTCCAGATCCCATTTAGAACCAACCAGGT  
GCTGAAAACACATGTAGATAATGGCCATCATCCTAAGCCCAAAGTAGAAAATGGTAGAAGGTAGTGGGTAGAAGT  
CACTATATAAGGAAGGGGATGGGATTTTCCATTCTAAAAGTTTTGGAGAGGGAAATCCAGGCTATTAAAGTCACT  
AAATTTCTAAGTATGTCCATTTCCCATCTCAGCTTCAAGGGAGGTGTCAGCAGTATTATCTCCACTTTCAATCTC  
CCTCCAAGCTCTACTCTGGAGGAGTCTGTCCACTCTGTCAAGTGGAATCCTTCCCTTTCCAACCTCTACCTCCCT  
CACTCAGCTCCTTTCCCCTGATCAGAGAAAGGGATCAAGGGGGTGGGAGGGGGGAAAGAGACCAGCCTTGGTCC  
CTAAGCCTCCAGAAACGTCTTCTTAATCCCCACCTTTTCTTACTCCCCAAAAAGAATGAACACCCCTGACTCTGG  
AGTGGTGTATACTGCCACATCAGTGTGTTGAGTCAGTCCCCAGAGGAGAGGGGAACCCCTCCTCCATCTTTTTTGCA  
ACATCTCATTTCTTCTTTTGTGTTGCTTCCCCCTCACACACTTGGTTTTGTTCTATCCTACATTTGAGATTT  
CTATTTTATGTTGAACCTGTGCTTTTTTTTATATTGAAAAGATGACATCGCCCCAAGAGCCAAAAATAAATGGG  
AATTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 751**

MREIVHIQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLDRISVYYNEATGGKYVPRAILVDLEPGTMDS  
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLOGFQLTHSLGGGTGSGMGTL  
LISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTTPTYGDL  
NHLVSATMSGVTTCLRFPGLNADLRKLAVNMVFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQVFDKNMM  
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQKNSSYFVEWIPNNVKTAVCDIPPRGLKMAVTFIGNSTAIQ  
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEEEDFGEEAEEEA .

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**FIGURE 752**

GAATTGAACCACCCATTTTCCCTTTCTTAGCCAAATCACCAAATGTCCAGTTAGAACAAGAATTTAGCATTCTGC  
AAAAGAAGTTAACAGCTGAGATAACGAGGAAATATTCTGAAATGGATCCCAAATATTTTCATCTTAATTTTGT  
GTGGACACCTGAACAATACATTTTTTTTCAAAGACAGAGACAATTACAACAGAGAAGCAGTCACAGCCTACCTTAT  
TCACATCATCAATGTCACAGGTATTGGCTAATTCTCAAAACACAACAGGGAATCCTTTGGGTCAACCAACACAAT  
TCAGCGACACTTTTTCTGGACAATCAATATCACCTGCCAAAGTCACTGCTGGACAACCAACACCAGCTGTCTATA  
CCTCTTCTGAAAAACCAGAAGCACATACTTCTGCTGGACAACCACTTGCCTACAACACCAAACAACCAACACCAA  
TAGCCAACACCTCCTCCCAGCAAGCCGTGTTACCTCTGCCAGACAACCTACCATCTGCCCGTACTTCTACCACAC  
AACCACCAAAGTCATTTGTCTATACTTTTACTCAACAATCATCATCTGTCCAGATCCCTTCTAGAAAACAATAA  
CTGTTTCATAATCCATCCACACAACCAACATCAACTGTCAAAAATTCACCTAGGAGTACACCAGGATTTATCTTAG  
ATACTACCAGTAACAAACAAACCCCAAAAAACAATTATAATTCAATAGCTGCCATACTAATTGGTGTACTTC  
TGACTTCTATGTTGGTAGCTATAATCATCATTGTACTTTGGAAATGCTTAAGGAAACCAAGTTTAAATGATCAAA  
ATTGGGCAGGTAGATCTCCATTGCTGATGGAGAAACCCCTGACATTTGTATGGATAACATCAGAGAAAATGAAA  
TATCCACAAAACGTACATCAATCATTTCACTTACACCCTGGAAACCAAGCAAAAGCACACTTTTAGCAGATGACT  
TAGAAATTAAGTTGTTTGAATCAAGTGAAAACATTGAAGACTCCAACAACCCCAAAACAGAGAAAATAAAAGATC  
AAGTAAATGGTACATCAGAAGATAGTGCTGATGGTTCAACAGTTGGAACTGCTGTTTCTTCTCAGATGATGCAG  
GTCTGCCTCCACCACCTCCCTTCTGGATTTGGAAGGACAGGAAAAGTAACCAATCTGACAAACCCACAATGACAA  
TTGTATCTCCTCTTCCAAATGATTCTACTAGTCTCCCTCCATCTCTGGACTGTCTCAATCAAGACTGTGGAGATC  
ATAAATCTGAGATAATACAATCATTTCCACCGCTTGACTCACTTAACCTTGCCCCTGCCACCAGTAGATTTTATGA  
AAAACCAAGAAGATTCCAACCTTGAGATCCAGTGTCAGGAGTTCTCTATTCTCCTCCCAACTCTGATCAAGATCTTA  
ATGAATCCCTGCCACCTCCACCTGCAGAACTGTTATTAATATTACAACCTTGCTTTTTAGCTGATCTTCCATCCTC  
AAATGACTCTTTTTTCTTTATATGTTAACATATATAAAATGGCAACTGATAGTCAATTTTGATTTTTATTTCAGGA  
ACTATCTGAAATCTGCTCAGAGCCTATGTGCATAGATGAACTTTTTTTTAAAAAAGTTATTTAACAGTAATCT  
ATTTACTAATTATAGTACCTATCTTTAAAGTATAGTACATTTTACATATGTAAATGGTATGTTTCAATAATTTAA  
GAACTCTGAAACAATCTACATATACTTATTACCCAGTACAGTTTTTTTTTCCCCTGAAAAGCTGTGTATAAAATTA  
TGGTGAATAAACTTTTATGTTTCCATTTCAAAGACCAGGGTGGAGAGGAATAAGAGACTAAGTATATGCTTCAAG  
TTTTAAATTAATACCTCAAGTATTAAATAAATATTCCAAGTTTGTGGGAATGGGAGATTAAATGCATGTTTGAG  
AGTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 753**

MDPKYFILILFCGHLNNTFFSKTETITTEKQSQPTLFTSSMSQVLANSQNTTGNPLGQPTQFSDTFSGQSISPAK  
VTAGQPTPAVYTSSEKPEAHTSAGQPLAYNTKQPTPIANTSSQQAVFTSARQLPSARTSTTQPPKSFVYTFTQQS  
SSVQIPSRKQITVHNPSTQPTSTVKNSPRSTPGFILDTTSNKQTPQKNYNSIAAILIGVLLTSM LV A I I I V L W  
KCLRKPV LNDQNWAGRSPFADGETPDICMDNIRENEISTKR T S I I S L T P W K P S K S T L L A D D L E I K L F E S S E N I E D  
SNNPKTEKIKDQVNGTSEDSADGSTVGTA V S S S D D A G L P P P P L L D L E G Q E S N Q S D K P T M T I V S P L P N D S T S L P P  
SLDCLNQDCGDHKSEIIQSFPPLDSLNLPLPPVDFMKNQEDSNLEIQCEFSIPPNSDQDLNESLPPPPAELL

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**FIGURE 754**

ATGCGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGC  
CTGGAACACGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGATTCCTTCAAC  
ACCTTCTTCAGTGAAACGGGTGCTGGCAAGCATGTGCCCCGGGCAGTGTTTGTAGACTTGGAACCCACAGTCATT  
GATGAAGTTTCGCACTGGCACTTACCGCCAGCTCTTCCACCCTGAGCAACTCATCACAGGCAAGGAAGATGCTGCC  
AATAACTATGCCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTCGTGTGGACCGAATTCGCAAGCTG  
GCTGACCAGTGCACCGGTCTTCAGGGCTTCTTGTTTTCCACAGCTTTGGTGGGGGAAC TGTTCTGGGTTTACC  
TCGCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATTTACCCGGCGCCC  
CAGGTTTCCACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCACACCACCTGGAGCACTCTGATTGT  
GCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCTAGAAAACCTCGATATCGAGCGCCCAACCTACACT  
AACCTTAACCGCCTTATTAGCCAGATTGTGTCTCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTT  
GACCTGACAGAATTCCAGACCAACCTGGTGCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCCCCTGTC  
ATCTCTGCTGAGAAAAGCCTACCATGAACAGCTTACTGTAGCAGAGATCACCAATGCTTGCTTTGAGCCAGCCAAC  
CAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTGTTATACCGTGGTGACGTGGTTCCC  
AAAGATGTCAATGCTGCCATTGCCACCATCAAAACCAAGCGTACCATCCAGTTTGTGGATTGGTGCCCCACTGGC  
TTCAAGGTTGGCATTAAATTACCAGCCTCCCACTGTGGTGCCCTGGCGGAGACCTGGCCAAGGTACAGAGAGCTGTG  
TGCATGCTGAGCAATACCACAGCTGTTGCCGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCC  
AAGCGTGCCCTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTAGAGGCCCGTGAGGACATG  
GCTGCCCTTGAGAAGGATTATGAGGAGGTTGGAGCAGATAGTGCTGACGGAGAGGATGAGGGTGAAGAGTATTAA

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**FIGURE 755**

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI  
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHSFGGGTGSGFT  
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLTVAEITNACFEPAN  
QMVKCDPRHGKYMCCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV  
CMLSNTTAVAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEYEVGADSADGEDEGEY

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**FIGURE 756**

GCCACACGGTCTTTGAGCTGAGTCGAGGTGGACCCTTTGAACGCAGTCGCCCTACAGCCGCTGATTCCCCCGCA  
TCGCTCCCGTGGAAGCCAGGCCGCTTCGCAGCTTTCTCCCTTTGTCTCATAACCATGTCCACCAACGAGAAT  
GCTAATACACCAGCTGCCCGCTTCACAGATTCAAGAACAAGGGAAAAGACAGTACAGAAATGAGGCGTCGCAGA  
ATAGAGGTCAATGTGGAGCTGAGGAAAGCTAAGAAGGATGACCAGATGCTGAAGAGGAGAAATGTAAGCTCATT  
CCTGATGATGCTACTTCTCCGCTGCAGGAAAACCGCAACAACCAGGGCACTGTAAATTGGTCTGTTGATGACATT  
GTCAAAGGCATAAATAGCAGCAATGTGGAAAATCAGCTCCAAGCTACTCAAGCTGCCAGGAAACTACTTTCCAGA  
GAAAAACAGCCCCCATAGACAACATAATCCGGGCTGGTTTGATTCCGAAATTTGTGTCCTTCTTGGGCAGAACT  
GATTGTAGTCCCATTCACTTTGAATCTGCTTGGGCACTCACTAACATTGCTTCTGGGACATCAGAACAAACCAAG  
GCTGTGGTAGATGGAGGTGCCATCCCAGCATTCACTTCTCTGTTGGCATCTCCCCATGCTCACATCAGTGAACAA  
GCTGTCTGGGCTCTAGGAAACATTGCAGGTGATGGCTCAGTGTTCCGAGACTTGGTTATTAAGTACGGTGCAGTT  
GACCCACTGTTGGCTCTCCTTGCACTTCTGATATGTCATCTTTAGCATGTGGCTACTTACGTAATCTTACCTGG  
ACACTTTCTAATCTTTGCCGCAACAAGAATCCTGCACCCCCGATAGATGCTGTTGAGCAGATTCTTCCTACCTTA  
GTTCCGGCTCCTGCATCATGATGATCCAGAAGTGTTAGCAGATACCTGCTGGGCTATTTCTTACCTTACTGATGGT  
CCAAATGAACGAATTGGCATGGTGGTGAACAGGAGTTGTGCCCAACTTGTGAAGCTTCTAGGAGCTTCTGAA  
TTGCCAATTGTGACTCCTGCCCTAAGAGCCATAGGGAATATTGTCACTGGTACAGATGAACAGACTCAGGTTGTG  
ATTGATGCAGGAGCACTCGCGTCTTTCCAGCCTGCTCACCAACCCCAAACTAACATTCAAGGAAGCTACG  
TGGACAATGTCAAACATCACAGCCGGCCGCCAGGACCAGATACAGCAAGTTGTGAATCATGGATTAGTCCCATTC  
CTTGTCAGTGTTCTCTCTAAGGCAGATTTTAAGACACAAAGGAAGCTGTGTGGGCCGTGACCAACTATACCAGT  
GGTGGAACAGTTGAACAGATTGTGTACCTTGTTCACTGTGGCATAATAGAACCGTTGATGAACCTCTTAAGTGA  
AAAGATACCAAGATTATTCTGGTTATCCTGGATGCCATTTCAAATATCTTTCAGGCTGCTGAGAACTAGGTGAA  
ACTGAGAACTTAGTATAATGATTGAAGAATGTGGAGGCTTAGACAAAATTGAAGCTCTACAAAACCATGAAAAT  
GAGTCTGTGTATAAGGCTTCGTTAAGCTTAATTGAGAAGTATTTCTCTGTAGAGGAAGAGGAAGATCAAAACGTT  
GTACCAGAACTACCTCTGAAGGCTACACTTTCCAAGTTCAAGATGGGGCTCCTGGGACCTTTAACTTTTAGATC  
ATGTAGCTGAGACATAAATTTGTTGTGTACTACGTTTGGTATTTTGTCTTATTGTTTCTCTACTAAGAAGCTTTT  
CTTAAATGTGGTTTGTACTGTAGCACTTTTTACACTGAAACTATACTTGAACAGTTCCAAGTGTACATACATAC  
TGTATGAAGCTTGTCTCTGACTAGGTTTCTAATTTCTATGTGGAATTTCTATCTTGCAGCATCCTGTAAATAA  
ACATTCAAGTCCACCCCTAAAAAAA

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**FIGURE 757**

MSTNENANTPAARLHRFKNKGKDSTEMRRRRRIEVNVELRKAKKDDQMLKRRNVSSFPDDATSPLQENRNNQGTVN  
WSVDDIVKGINSSNVENQLQATQAARKLLSREKQPPIDNIIRAGLIPKFVSFLGRDTCSPIQFESAWALTNIASG  
TSEQTKAVVDGGAIPAFISLLASPHAHISEQAVWALGNIAGDGSVFRDLVIKYGAVDPLLALLAVPDMSSLACGY  
LRNLTWTLNLCRNKNPAPPIDAVEQILPTLVRLHHDDPEVLADTCWAISYLTGPNERIGMVVKTGVVPQLVK  
LLGASELP IVTPALRAIGNIVTGTDEQTQVVIDAGALAVFPSLLTNPKTNIQKEATWTMSNITAGRQDQIQQVVN  
HGLVPFLVSVLSKADFKTQKEAVWAVTNYTSGGTVEQIVYLVHCGIIEPLMNLLTAKDTKIILVILDAISNIFQA  
AEKLGETEKL SIMIEECGGLDKIEALQNHENESVYKASLSLIEKYFSVEEEEDQNVVPETTSEGYTFQVDGAPG  
TFNF



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**FIGURE 758**

**ATGGCGAAATATAACACGGGGGGCAACCCGACAGAGGATGTCTCAGTCAATAGCCGACCCTTCAGAGTCACAGGG**  
CCAAACTCATCTTCAGGAATACAAGCAAGAAAGAACTTATTCAACAACCAAGGAAATGCCAGCCCTCCTGCAGGA  
CCCAGCAATGTACCTAAGTTTGGGTCCCCAAAGCCACCTGTGGCAGTCAAACCTTCTTCTGAGGAAAAGCCTGAC  
AAGGAACCCAAGCCCCGTTTCTAAAGCCCACTGGAGCAGGCCAAAGATTTCGGAACACCAGCCAGCTTGACCACC  
AGAGACCCCGAGGCGAAAGTGGGATTTCTGAAACCTGTAGGCCCAAGCCCATCAACTTGCCCAAAGAAGATTCC  
AAACCTACATTTCCCTGGCCTCCTGGAAACAAGCCATCTCTTCACAGTGTAACCAAGACCATGACTTAAAGCCA  
CTAGGCCCGAAATCTGGGCCTACTCCTCCAACCTCAGAAAATGAACAGAAGCAAGCGTTTCCCAAATTGACTGGG  
GTTAAAGGGAAATTTATGTCAGCATCACAAAGATCTTGAACCCAAGCCCCCTTCCCAAACCCGCCTTTGGCCAG  
AAGCCGCCCCTAAGTACCGAGAATCCCATGAAGACGAAAGCCCCATGAAGAATGTGTCTTCATCAAAAGGGTCC  
CCAGCTCCCCTGGGAGTCAGGTCCAAAAGCGGCCCTTTAAAACCAGCAAGGGAAGACTCAGAAAATAAAGACCAT  
GCAGGGGAGATTTCAAGTTTGCCCTTTCCTGGAGTGGTTTTGAAACCTGCTGCGAGCAGGGGAGGCCAGGTCTC  
TCCAAAATGGTGAAGAAAAAAGGAAGATAGGAAGATAGATGCTGCTAAGAACACCTTCCAGAGCAAAATAAAT  
CAGGAAGAGTTGGCCTCAGGGACTCCTCCTGCCAGGTTCCCTAAGGCCCTTCTAAGCTGACAGTGGGGGGGCCA  
TGGGGCCAAAGTCAGGAAAAGGAAAAGGGAGACAAGAATTACGCCACCCGAAACAGAAAGCCATTGCCTCCCTTG  
TTTACCTTGGGTCCACCTCCACCAAAACCCAACAGACCACCAAATGTTGACCTGACGAAATTCACAAAACCTCT  
TCTGGAACAGTACTAGCAAAGGCCAGACGTCTTACTCAACAACCTTCCCTGCCACCACCTCCACCATCCCATCCG  
GCCAGCCAACCACCATTGCCAGCATCTCACCATCACAACCACCAGTCCCAAGCCTACCTCCCAGAAACATTAA  
CCTCCGTTTGACCTAAAAAGTCTGTCAATGAAGACAATCAAGATGGTGTACGCACTCTGATGGTGTGGAAT  
CTAGATGAGGAACAAGACAGTGAAGGAGAAACATATGAAGACATAGAAGCATCCAAAGAAAGAGAGAAGAAAAGG  
GAAAAGGAAGAAAAGAAGAGGTTAGAGCTGGAGAAAAGGAACAGAAAGAGAAAGAAAAGAAACAAGAAATA  
AAGAAGAAATTTAACTAACAGGCCCTATTCAAGTCATCCATCTTGCAAAAGCTTGTTGTGATGTCAAAGGAGGA  
AAGAATGAAGTGAAGCTTCAAGCAAGGAGAGCAAATTGAAATCATCCGCATCACAGACAACCCAGAAGGAAAATGG  
TTGGGCAGAACAGCAAGGGGTTTATATGGCTATATTTAAACAACCTGCTGTAGAGATTGACTATGATTCTTTGAAA  
CTGAAAAAAGACTCTCTTGGTGCCCCCTTCAAGACCTATTGAAGATGACCAAGAAGTATATGATGATGTTGCAGAG  
CAGGATGATATTAGCAGCCACAGTCAGAGTGGAAGTGGAGGGATATTCCCTCCACCACCAGATGATGACATTTAT  
GATGGGATTGAAGAGGAAGATGCTGATGATGGCTCCACACTACAGGTTCAAGAGAAGAGTAATACGTGGTCTTG  
GGGATTTTGAAGATGTTAAAGGGAAGAGATGACAGAAAGAAAAGTATACGAGAGAAACCTAAAGTCTCTGACTCA  
GACAATAATGAAGGTTTCACTTTCCCTGCTCCTCTAAACAATTGGACATGGGAGATGAAGTTTACGATGATGTG  
GATACCTCTGATTTCCCTGTTTTCATCAGCAGAGATGAGTCAAGGAACTAATTTTGAAAAGCTAAGACAGAAGAA  
AAGGACCTTAAGAAGCTAAAAAAGCAGGAAAAAGAAGAAAAGACTTCAGGAAAAAATTTAAATATGATGGTGAA  
ATTAGAGTCTATATTCACTAAAGTTACAACCTTCATAACTTCTAAAAAGTGGGGAACCAAGAGATCTACAGGTA  
AAACCTGGTGAATCTCTAGAAGTTATACAAACCACAGATGACACAAAAGTTCTCTGCAGAAATGAAGAAGGGAAA  
TATGGTTATGTCCTTCGGAGTTACCTAGCGGACAATGATGGAGAGATCTATGATGATATTGCTGATGGCTGCATC  
TATGACAATGACT**TAG**

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**FIGURE 759**

MAKYNTGGNPTEDVSVNSRPFRTGPNSSSGIQARKNLFNNQGNASPPAGPSNVPKFGSPKPPVAVKPSSEKPD  
KEPKPPFLKPTGAGQRFGTPASLTTRDPEAKVGFLKPVGPKPINLPKEDSKPTFPWPPGNKPSLHNVQDHDLP  
LGPKSGPTPPTSENEQKQAFPKLTGVKGKFMASQDLEPKPLFPKPAFGQKPPPLSTENSHEDESPMKNVSSSKGS  
PAPLGVRSGPLKPAEDSENKDHAGEISSLPFGVVLKPAASRGGPGLSKNGEEKKEDRKIDAAKNTFQSKIN  
QEELASGTPPARFPKAPSKLTVGGPWGQSQEKEKGDKN SATPKQKPLPPLFTLGPPPPKPNRPPNVDLTKFHKTS  
SGNSTSKGQTSYSTTSLPPPPSHPASQPPLPASHPSQPPVPSLPPRNIKPPFDLKSPVNEDNQDGVTHSDGAGN  
LDEEQDSEGETYEDIEASKEREKKREKEKKRLELEKKEQKEKEKKEQEIKKKFKLTGPIQVIHLAKACCDVKGG  
KNELSFQGEQIEIIRITDNPEGKWLGR TARGSYGYIKTTAVEIDYDSLKLKDSL GAPSRPIEDDQEVYDDVAE  
QDDISSHSQSGSGGIFPPPPDDDIYDGIEEDADDGSTLQVQEKSN TWSWGILKMLKGKDDRKKSIREKPKVSDS  
DNNEGSSFPAPPKQLDMGDEVYDDVDTSDFPVSSAEMSQGTNFGKAKTEEKDLKKLKKQEKEEKDFRKKFKYDGE  
IRVLYSTKVTTSTITSKKWGTRDLQVKPGESLEVIQTTDDTKVLCRNEEGKYGYVLR SYLADNDGEIYDDIADGCI  
YDND

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**FIGURE 760**

TAGGATGGAAAGGCAGATGTAAAGTCCCTCATGGCGAAATATAACACGGGGGGCAACCCGACAGAGGATGTCTCA  
GTCAATAGCCGACCCTTCAGAGTCACAGGGCCAAACTCATCTTCAGGAATACAAGCAAGAAAGAACTTATTCAAC  
AACCAAGGAAATGCCAGCCCTCCTGCAGGACCCAGCAATGTACCTAAGTTTGGGTCCCCAAAGCCACCTGTGGCA  
GTCAAACCTTCTTCTGAGGAAAAGCCTGACAAGGAACCCAAGCCCCCGTTTCTAAAGCCCCTGGAGCAGGCCAA  
AGATTGGAACACCAGCCAGCTTGACCACCAGAGACCCCGAGGCGAAAGTGGGATTTCTGAAACCTGTAGGCCCC  
AAGCCCATCAACTTGCCCAAAGAAGATTCCAAACCTACATTTCCCTGGCCTCCTGGAAACAAGCCATCTCTTCAC  
AGTGTAACCAAGACCATGACTTAAAGCCACTAGGCCCCGAAATCTGGGCCTACTCCTCCAACCTCAGAAAATGAA  
CAGAAGCAAGCGTTTCCCAAATTGACTGGGGTTAAAGGGAAATTTATGTCAGCATCACAAAGATCTTGAACCCAAG  
CCCCCTTTCCCCAAACCCGCCCTTTGGCCAGAAGCCGCCCTAAGTACCGAGAACTCCCATGAAGACGAAAGCCCC  
ATGAAGAATGTGTCTTCATCAAAAGGGTCCCCAGCTCCCCTGGGAGTCAGGTCCAAAAGCGGCCCTTTAAACCA  
GCAAGGGAAGACTCAGAAAATAAGACCATGCAGGGGAGATTTCAAGTTTGCCCTTTCTGGAGTGGTTTTGAAA  
CCTGCTGCGAGCAGGGGAGGCCTAGGTCTCTCCAAAATGGTGAAGAAAAAAGGAAGATAGGAAGATAGATGCT  
GCTAAGAACACCTTCCAGAGCAAAATAAATCAGGAAGAGTTGGCCTCAGGGACTCCTCCTGCCAGGTTCCCTAAG  
GCCCCCTTCTAAGCTGACAGTGGGGGGGCCATGGGGCCAAAGTCAGGAAAAGGAAAAGGGAGACAAGAATTCAGCC  
ACCCCGAAACAGAAGCCATTGCCTCCCTTGTTTTACCTTGGGTCCACCTCCACCAAACCCAACAGACCACCAAT  
GTTGACCTGACGAAATTCACAAAACCTCTTCTGGAACAGTACTAGCAAAGGCCAGACGTCTTACTCAACAAC  
TCCCTGCCACCACCTCCACCATCCCATCCGGCCAGCCAACCACCATTGCCAGCATCTCACCATCACAACCACCA  
GTCCAAGCCTACCTCCCAGAAACATTAAACCTCCGTTTGACCTAAAAAGCCCTGTCAATGAAGACAATCAAGAT  
GGTGTCACGCACTCTGATGGTGCTGGAAATCTAGATGAGGAACAAGACAGTGAAGGAGAAACATATGAAGACATA  
GAAGCATCCAAAGAAAGAGAGAAGAAAAGGGAAAAGGAAGAAAAGAGAGGTTAGAGCTGGAGAAAAGGAACAG  
AAAGAGAAAAGAAAAGAAAGAACAAGAAATAAAGAAGAAATTTAAACTAACAGGCCCTATTCAAGTCATCCATCTT  
GCAAAAGCTTGTTGTGATGTCAAAGGAGGAAAGAATGAACTGAGCTTCAAGCAAGGAGAGCAAATTGAAATCATC  
CGCATCACAGACAACCCAGAAGGAAAATGGTTGGGCAGAACAGCAAGGGGTTTCATATGGCTATATTTAAACAAC  
GCTGTAGAGATTGACTATGATTCTTTGAAACTGAAAAAGACTCTCTTGGTGCCCTTCAAGACCTATTGAAGAT  
GACCAAGAAGTATATGATGATGTTGCAGAGCAGGATGATATTAGCAGCCACAGTCAGAGTGAAGTGGAGGGATA  
TTCCCTCCACCACCAGATGATGACATTTATGATGGGATTGAAGAGGAAGATGCTGATGATGGTTTCCCTGCTCCT  
CCTAAACAATTGGACATGGGAGATGAAGTTTACGATGATGTGGATACCTCTGATTTCCCTGTTTCATCAGCAGAG  
ATGAGTCAAGGAACTAATTTTGGAAAAGCTAAGACAGAAGAAAAGGACCTTAAGAAGCTAAAAAGCAGGAAAAA  
GAAGAAAAAGACTTCAGGAAAAAATTTAAATATGATGGTGAATTAGAGTCCTATATTCAACTAAAGTTACAAC  
TCCATAACTTCTAAAAAGTGGGGAACCAGAGATCTACAGGTAAACCTGGTGAATCTCTAGAAGTTATACAAACC  
ACAGATGACACAAAAGTTCTCTGCAGAAATGAAGAAGGGAAATATGGTTATGTCCTTCGGAGTTACCTAGCGGAC  
AATGATGGAGAGATCTATGATGATATTGCTGATGGCTGCATCTATGACAATGACTAGCACTCAACTTTGGTCATT

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**FIGURE 761**

MAKYNTGGNPTEDVSVNSRPFRVTGPNSSSGIQARKNLFNNQGNASPPAGPSNVPKFGSPKPPVAVKPSSEEKPD  
KEPKPPFLKPTGAGQRFGTPASLTTRDPEAKVGFLKPVGPKPINLPKEDSKPTFPWPPGNKPSLHSVNQDHDLP  
LGPKSGPTPPTSENEQKQAFPKLTGVKGKFMASQDLEPKPLFPKPAFGQKPPLSTENSHEDESPMKNVSSSKGS  
PAPLGVRKSGPLKPAREDSENKDHAGEISSLPFPGVVLKPAASRGGLGLSKNGEEKKEDRKIDAAKNTFQSKIN  
QEELASGTPPARFPKAPSKLTVGGPWGQSQEKEKGDKN SATPKQKPLPPLFTLGPPPPKPNRPPNVDLTKFHKT  
SGNSTSKGQTSYSTTSLPPPPPSHPASQPPLPASHPSQPPVPSLPPRNIKPPFDLKSPVNEDNQDGVTHSDGAGN  
LDEEQDSEGETYEDIEASKEREKKREKEEKKRLELEKKEQKEKEKKEQEIKKKFKLTGPIQVIHLAKACCDVKGG  
KNELSFKQGEQIEIIRITDNPEGKWLGR TARGSYGYIKTTAVEIDYDSLKLKDSL GAPS RPIEDDQEVYDDVAE  
QDDISSHSQSGSGGIFPPPPDDDIYDGIEEDADDGFPAPPKQLDMGDEVYDDVDTSDFPVSSAEMSQGTNFGKA  
KTEEKDLKKLKKQEKEEKDFRKKFKYDGEIRVLYSTKVTTTSITSKKWGTRDLQVKPGESLEVIQTDDTKVLCRN  
EEGKYGYVLRSYLADNDGEIYDDIADGCIYDND

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**FIGURE 762A**

GCCCCAGGGCCTGGAGAGGTCTGAAGAAACCTGGGAGCCAGCAGCCCCGGGGCTCCACTCTGGGTTCTGAAAGCCC  
ATTCCCTGCTCTGCGGCTCCTCCACCCACCTCTTCTCAGCCTTGCGAGCTCAAGGGTTGATCTCAGGAGTCCAG  
GACCCAGGAGAGGGAAGAATCTGAGGAACACAGAACAGTGAGCGTTGCCACACCCCATCTCCCGTACCACATC  
TCCCCTACCCTCACCCTCCCTGCCTGGCCCTGGACCCCATCCAGGACCTCCCTATCAGCTGACTTCTTCCAGT  
GTCTTGCGAGGCCCTCTGGGCTCCTCCCTCCCTGGCTTTTCTACCCTCCCTCTATCGGCGTCTATCTGTA  
GGTGCCCTGGGATTTATAAACTGGGTTCCGAATGCTGAATAAGAGACGGTAAGAGCCAAGGCAAAGGACAGCAC  
TGTTCTCTGCCTGCCTGATACCCTCACCACCTGGGAACATCCCCCAGACACCTCTTAACCTCCGGGACAGAGATG

GCTGGCGGAGCCTGGGGCCGCCTGGCCTGTTACTTGGAGTTCCTGAAGAAGGAGGAGCTGAAGGAGTTCCAGCTT  
CTGCTCGCCAATAAAGCGCACTCCAGGAGCTCTTCGGGTGAGACACCCGCTCAGCCAGAGAAGACGAGTGGCATG  
GAGGTGGCCTCGTACCTGGTGGCTCAGTATGGGGAGCAGCGGGCTGGGACCTAGCCCTCCATACCTGGGAGCAG  
ATGGGGCTGAGGTCACTGTGCGCCCAAGCCCAGGAAGGGGACAGGCCACTCTCCCTCATTCCCCTACAGCCCAAGT  
GAACCCACCTGGGGTCTCCAGCCAACCCACCTCCACCGCAGTGCTAATGCCCTGGATCCATGAATTGCCGGCG  
GGGTGCACCCAGGGCTCAGAGAGAAGGGTTTTGAGACAGCTGCCTGACACATCTGGACGCCGCTGGAGAGAAATC  
TCTGCCCTCACTCCTTACCAAGCTCTTCCAAGCTCCCCAGACCATGAGTCTCCAAGCCAGGAGTCAACCAACGCC  
CCCACATCCACAGCAGTGTGGGGAGCTGGGGATCCCCACCTCAGCCCAGCCTAGCACCCAGAGAGCAGGAGGCT  
CCTGGGACCCAATGGCCTCTGGATGAAACGTGAGGAATTTACTACACAGAAATCAGAGAAAGAGAGAGAGAGAAA  
TCAGAGAAAGGCAGGCCCCCATGGGCAGCGGTGGTAGGAACGCCCCACAGGCGCACACCAGCCTACAGCCCCAC  
CACCACCATGGGAGCCTTCTGTGAGAGAGAGCCTCTGTTCCACATGGCCCTGGAAAAATGAGGATTTTAACCAA  
AAATTCACACAGCTGCTACTTCTACAAAGACCTCACCCAGAAAGCCAAGATCCCCTGGTCAAGAGAAGCTGGCCT  
GATTATGTGGAGGAGAATCGAGGACATTTAATTGAGATCAGAGACTTATTTGGCCCAGGCCTGGATACCCAAGAA  
CCTCGCATAGTCATACTGCAGGGGGCTGCTGGAATTGGGAAGTCAACACTGGCCAGGCAGGTGAAGGAAGCCTGG  
GGGAGAGGCCAGCTGTATGGGGACCGCTTCCAGCATGTCTTCTACTTCAGCTGCAGAGAGCTGGCCAGTCCAAG  
GTGGTGAGTCTCGCTGAGCTCATCGGAAAAGATGGGACAGCCACTCCGGCTCCCATTAGACAGATCCTGTCTAGG  
CCAGAGCGGCTGCTCTTCATCCTCGATGGTGTAGATGAGCCAGGATGGGTCTTGAGGAGCCGAGTTCTGAGCTC  
TGTCTGCACTGGAGCCAGCCACAGCCGGCGGATGCACTGCTGGGCAGTTTGCTGGGGAAAACATACTTCCCAG  
GCATCCTTCCCTGATCACGGCTCGGACCACAGCTCTGCAGAACCTCATTCTTCTTTGGAGCAGGCACGTTGGGTA  
GAGGTCTGGGGTTCTCTGAGTCCAGCAGGAAGGAATATTTCTACAGATATTTACAGATGAAAGGCAAGCAATT  
AGAGCCTTTAGGTTGGTCAAATCAAACAAAGAGCTCTGGGCCCTGTGTCTGTGCCCTGGGTGTCTGGCTGGCC  
TGCATTTGCCCTGATGCAGCAGATGAAGCGGAAGGAAAACTCACACTGACTTCCAAGACCACCACAACCTCTGT  
CTACATTACCTTGCCAGGCTCTCCAAGCTCAGCCATTGGGACCCAGCTCAGAGACCTCTGCTCTCTGGCTGCT  
GAGGGCATCTGGCAAAAAAAGACCCTTTTTCAGTCCAGATGACCTCAGGAAGCATGGGTTAGATGGGGCCATCATC  
TCCACCTTCTTGAAGATGGGTATTCTTCAAGAGCACCCCATCCCTCTGAGCTACAGCTTCACTTACCTCTGTTTC  
CAAGAGTTCTTTGAGCAATGTCTATGTCTTGGAGGATGAGAAGGGGAGAGGTAACATTCTAATTGCATCATA  
GATTTGAAAAAGACGCTAGAAGCATATGGAATACATGGCCTGTTTGGGGCATCAACCACACGTTTCTATTGGGC  
CTGTTAAGTGATGAGGGGGAGAGAGAGATGGAGAACATCTTTCAGTCCCGCTGTCTCAGGGGAGGAACCTGATG  
CAGTGGGTCCCCTCCCTGCAGCTGCTGCTGCAGCCACACTCTTGAGTCCCTCCACTGCTTGTACGAGACTCGG  
AACAAAACGTTCTTGACACAAGTGATGGCCCATTTTGAAGAAATGGGCATGTGTGTAGAAACAGACATGGAGCTC  
TTAGTGTGCACTTTCTGCATTAAATTACGCCGCCACGTGAAGAAGCTTCAGCTGATTGAGGGCAGGCAGCACAGA  
TCAACATGGAGCCCCACCATGGTAGTCTGTTTCAAGTGGGTCCAGTACAGATGCCTATTGGCAGATTCTCTTC  
TCCGTCTCAAGGTACCCAGAAACCTGAAGGAGCTGGACCTAAGTGGAACTCGCTGAGCCACTCTGCAGTGAAG  
AGTCTTTGTAAGACCTTGAGACGCCCTCGCTGCCTCCTGGAGACCCTGCGGTTGGCTGGCTGTGGCCTCACAGCT  
GAGGACTGCAAGGACCTTGCCCTTTGGGCTGAGAGCCAACCAGACCCTGACCGAGCTGGACCTGAGCTTCAATGTG  
CTCACGGATGCTGGAGCCAAACACCTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGCGACTGCAGCTG  
GTCAGCTGTGGCCTCACGTCTGACTGCTGCCAGGACCTGGCCTCTGTGCTTAGTGCCAGCCCCAGCCTGAAGGAG  
CTAGACCTGCAGCAGAACCACTGGATGACGTTGGCGTGCGACTGCTCTGTGAGGGGCTCAGGCATCCTGCCTGC  
AAACTCATACGCCTGGGGCTGGACCAGACAACCTCTGAGTGATGAGATGAGGCAGGAACCTGAGGGCCCTGGAGCAG  
GAGAAACCTCAGCTGCTCATCTTCAGCAGACGGAAACCAAGTGATGACCCCTACTGAGGGCCTGGATACGGGA  
GAGATGAGTAATAGCACATCTCACTCAAGCGGCAGAGACTCGGATCAGAGAGGGCGGCTTCCCATGTTGCTCAG

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**FIGURE 762B**

GCTAATCTCAAACCTCCTGGACGTGAGCAAGATCTTCCCAATTGCTGAGATTGCAGAGGAAAGCTCCCCAGAGGTA  
 GTACCGGTGGAACCTCTTGTGCGTGCCTTCTCCTGCCTCTCAAGGGGACCTGCATACGAAGCCTTTGGGGACTGAC  
 GATGACTTCTGGGGCCCCACGGGGCCTGTGGCTACTGAGGTAGTTGACAAAAGAAAAGAACTTGTACCGAGTTTAC  
 TTCCCTGTAGCTGGCTCCTACCGCTGGCCCAACACGGGTCTCTGCTTTGTGATGAGAGAAGCGGTGACCGTTGAG  
 ATTGAATTCTGTGTGTGGGACCAGTTTCTGGGTGAGATCAACCCACAGCACAGCTGGATGGTGGCAGGGCCTCTG  
 CTGGACATCAAGGCTGAGCCTGGAGCTGTGGAAGCTGTGCACCTCCCTCACTTTGTGGCTCTCCAAGGGGGCCAT  
 GTGGACACATCCCTGTTCCAAATGGCCCACTTTAAAGAGGAGGGGATGCTCCTGGAGAAGCCAGCCAGGGTGGAG  
 CTGCATCACATAGTTCTGGAACCCAGCTTCTCCCCCTTGGGAGTCTCCTGAAAATGATCCATAATGCCCTG  
 CGCTTCAATCCCGTCACCTCTGTGGTGTGCTTTACCACCGCTCCATCCTGAGGAAGTCACCTTCCACCTCTAC  
 CTGATCCCAAGTGACTGCTCCATTGGAAGGAAGTGGAGCTCTGCTATCGAAGCCCTGGAGAAGACCAGCTGTTT  
 TCGGAGTTCTACGTTGGCCACTTGGGATCAGGGATCAGGCTGCAAGTGAAAAGACAAGAAAGATGAGACTCTGGTG  
 TGGGAGGCCTTGGTGAAACCAGGAGATCTCATGCCTGCAACTACTCTGATCCCTCCAGCCCGCATAGCCGTACCT  
 TCACCTCTGGATGCCCCGCAGTTGCTGCACCTTTGTGGACCAGTATCGAGAGCAGCTGATAGCCCGAGTGACATCG  
 GTGGAGGTTGTCTTGGACAAACTGCATGGACAGGTGCTGAGCCAGGAGCAGTACGAGAGGGTGCTGGCTGAGAAC  
 ACGAGGCCCCAGCCAGATGCGGAAGCTGTTTCACTTGGAGCCAGTCTTGGGACCGGAAGTGCAAAGATGGACTCTAC  
 CAAGCCCTGAAGGAGACCCATCCTCACCTCATTATGGAAGTCTGGGAGAAGGGCAGCAAAAAGGGACTCCTGCCA  
 CTCAGCAGCTGAAAGTATCAACACCAGCCCTTGACCCTTGAGTCTTGGCTTTGGCTGACCCTTCTTTGGGTCTCAG  
 TTTCTTTCTCTGCAAACAAGTTGCCATCTGGTTTGCCTTCCAGCACTAAAGTAATGGAAGTTTGATGATGCCTTT  
 GCTGGGCATTATGTGTCCATGCCAGGGATGCCACAGGGGGCCCCAGTCCAGGTGGCCTAACAGCATCTCAGGGAA  
 TGTCCATCTGGAGCTGGCAAGACCCCTGCAGACCTCATAGAGCCTCATCTGGTGGCCACAGCAGCCAAGCCTAGA  
 GCCCTCCGGATCCCATCCAGGCGCAAAGAGGAATAGGAGGGACATGGAACCATTTGCCTCTGGCTGTGTACAGG  
 GTGAGCCCCAAAATTGGGGTTTCAAGCTGGGAGGCCACGTGGATTCTTGGCTTTGTACAGGAAGATCTACAAGAGC  
 AAGCCAACAGAGTAAAGTGGAAGGAAGTTTATTAGAAAATAAAGGAGTATCACAGCTCTTTTAGAATTTGTCTA  
 GCAGGCTTTCCAGTTTTTACCAGAAAACCCCTATAAATTAATAAATTTTACTTAAATTTAAGAATTAATAAAT  
 ACAAAAAAGAAAAAATGAAAATAAAGGAATAAGAAGTTACCTACTCCAAAAA

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**FIGURE 763**

MAGGAWGRLACYLEFLKKEELKEFQLLLANKAHSRSSSGETPAQPEKTSGMEVASYLVAQYGEQRAWDLALHTWE  
QMGLRSLCAQAQEGAGHSPSFPYSPSEPHLGSPSQPTSTAVLMPWIHELPAAGCTQGSERRVLRQLPDTSGRRWRE  
ISASLLYQALPSSPDHESPSQESPNAPTSTAVLGSWGSPQPQSLAPREQEAPGTQWPLDETSGIYYTEIRERERE  
KSEKGRPPWAAVVGTPPQAHTSLQPHHPWEPSVRESLCSTWPWKNEFDNQKFTQLLLLQRPHPRSQDPLVKRSW  
PDYVEENRGHLIEIRDLFGPGLDTQEPRIVILQGAAGIGKSTLARQVKEAWGRGQLYGDRFQHVIFYSCRELAQS  
KVVSLAELIGKDGATATPAPIRQILSRPERLLFILDGVDEPGWVLQEPSSSELCLHWSQPQPADALLGSLLGKTIILP  
EASFLITARTTALQNLIPSLEQARWVEVLGFSESSRKEYFYRYFTDERQAIRAFRLVKSNNKELWALCLVPVWSWL  
ACTCLMQMKRKEKLTLSKTTTTLCLHYLAQALQAQPLGPQLRDLCSLAAEGIWQKKTLSFSPDDLKRGHGLDGA  
ISTFLKMGILQEHPIPLSYFHLICFQEFFAAMSYVLEDEKGRGKHSNCIIDLEKTLEAYGIHGLFGASTTRFLL  
GLLSDEGEREMENIFHCRLSQGRNLMQWVPSLQLLLQPHSLESLSHCLYETRNTFLTQVMAHFEEMGMCVETDME  
LLVCTFCIKFSRHVKKLQLIEGRQHRSTWSPTMVVLFRWVPVTDAYWQILFSVLKVTRNLKELDLSGNSLSHSAV  
KSLCKTLRRPRCLLETTLRLAGCGLTAEDCKDLAFGLRANQTLTELDLSFNVLTDAGAKHLCQRLRQPSCKLQRLQ  
LVSCGLTSDCCQDLASVLSASPSLKELDLQNNLDDVGVRLLCEGLRHPACKLIRLGLDQTTLSDEMROELRALE  
QEKPQLLIFSRRKPSVMTPTTEGLDTGEMSNSTSSLKRQRLGSEARAASHVAQANLKLDDVSKIFPIAEIAEESPE  
VVPVELLCVPSPASQGDHLTKPLGTDDDFWGPTGPVATEVVDKEKNLYRVHFPVAGSYRWPNTGLCFVMREAVTV  
EIEFCVWDQFLGEINPQHSWMVAGPLLDIKAEPGAVEAVHLPHFVALQGGHVDTSLSFQMAHFKEEGMLLEKPARV  
ELHHIVLENPSFSPLGVLLKMIHNALRFIPVTSVLLYHRVHPEEVTFHLYLIPSDCSIRKELELCYRSPGEDQL  
FSEFYVGHLGSGIRLQVKDKKDETLVWEALVKPGDLMPATTLIPPARIAVPSPLDAPQLLHFVDQYREQLIARVT  
SVEVVLDKLHGQVLSQEYQYERVLAENTRPSQMRKFLSLSQSWDRKCKDGLYQALKETHPHLIMELWEKGSKKGLL  
PLSS

**FIGURE 764**

AACGTTTCCTGACACAAAGTATGAGCCCAATTTTCGAAGAAATGGGCATGTGTGTAGAAACAGACATGGAGCTCTTAGT  
 GTGCACITTTCTGCATTAAATTCAGCCGCCACGTGAAGAAAGCTTCAGCTGATTGAGGGCAGGCAGCACAGATCAAC  
 ATGGAGCCCCACCATGGTAGTCCTGTTTCAGGTGGGTCCCAGTACAGATGCCTATTGGCAGATTCTCTTCTCCGT  
 CCTCAAGGTCACCAGAAACCTGAAGGAGCTGGACCTAAGTGGAAACTCGCTGAGCCACTCTGCAGTGAAGAGTCT  
 TTGTAAGACCCTGAGACGCCCTCGCTGCCTCCTGGAGACCCTGCGGTTGGCTGGCTGTGGCCTCACAGCTGAGGA  
 CTGCAAGGACCTTGCCCTTTGGGCTGAGAGCCAACCAGACCCTGACCGAGCTGGACCTGAGCTTCAATGTGCTCAC  
 GGATGCTGGAGCCAAACACCTTTGCCAGAGACTGAGACAGCCGAGCTGCAAGCTACAGCGACTGCAGCTGGTCAG  
 CTGTGGCCTCACGTCTGACTGCTGCCAGGACCTGGCCTCTGTGCTTAGTGCCAGCCCCACCTGAAGGAGCTAGAC  
 CTGCAGCAGAACAACCTGGATGACGTTTCGCGTGCAGCTGCTCTGTGAGGGGCTCAGGCATCCTGCCTGCAAACCTC  
 ATACGCCTGGGGCTGGACCAGACAACCTCTGAGTGATGAGATGAGGAGGACGAACTGAGGGCCCTGGAGCAGGAGAAA  
 CCTCAGCTGCTCATCTTCAGCAGACGGAAACCAAGTGTGATGACCCCTACTGAGGGCCTGGATACGGGAGAGATG  
 AGTAATAGCACATCCTCACTCAAGCGGCAGAGACTCGGATCAGAGAGGGCGGCTTCCCATGTTGCTCAGGCTAAT  
 CTCAAACCTCCTGGACGTGAGCAAGATCTTCCCAATTGCTGAGATTGCAGGCAAGAGCCACGAGGAAAGCTCCCCA  
 GAGGTAGTACCGGTGGAACCTTTGTGCGTGCCTTCTCCTGCCTCTCAAGGGGACCTGCATACGAAGCCTTTGGGG  
 ACTGACGATGACTTCTGGGGCCCCACGGGGCCTGTGGCTACTGAGGTAGTTGACAAAGAAAAGAACTTGTACCGA  
 GTTCACITTCCTGTAGCTGGCTCCTACCGCTGGCCCAACACGGGTCTCTGCTTTGTGATGAGAGAAGCGGTGACC  
 GTTGAGATTGAATTCTGTGTGTGGGACCAGTTTCTGGGTGAGATCAACCCACAGCACAGCTGGATGGTGGCAGGG  
 CCTCTGCTGGACATCAAGGCTGAGCCTGGAGCTGTGGAAGCTGTGCACCTCCCTCACTTTGTGGCTCTCCAAGGG  
 GGCCATGTGGACACATCCCTGTTCCAAATGGCCCACTTTAAAGAGGAGGGGATGCTCCTGGAGAAGCCAGCCAGG  
 GTGGAGCTGCATCACATAGTTCTGGAAAACCCAGCTTCTCCCCCTTGGGAGTCCCTCCTGAAAATGATCCATAAT  
 GCCCTGCGCTTCATTCCCGTCACCTCTGTGGTGTTGCTTTACCACCGCGTCCATCCTGAGGAAGTCACCTTCCAC  
 CTCTACCTGATCCCAAGTGACTGCTCCATTTCGGAAGGCCATAGATGATCTAGAAATGAAATTCCAGTTTGTGCGA  
 ATCCACAAGCCACCCCGCTGACCCCACTTTATATGGGCTGTGTTACACTGTGTCTGGGTCTGGTTTCAGGGATG  
 CTGGAAATACTCCCAAGGAACTGGAGCTCTGCTATCGAAGCCCTGGAGAAGACCAGCTGTTCTCGGAGTTCTAC  
 GTTGGCCACTTGGGATCAGGGATCAGGCTGCAAGTGAAAGACAAGAAAGATGAGACTCTGGTGTGGGAGGCCCTTG  
 GTGAAACCAGGAAGGAACACCAGCCAGCCGTGGAACCTCAGGTGCAACAGAGACGCCAGGAGATACTAGTGCCCA  
 GCAGCCTGCGGCAGTACCAATGAAGCCAGAGAGGGCTTGGTGGATGACAAGGAGGCCTGAGTAGACCGCAGGTGG  
 GTCTGAGAAATGGGCTTAGGTGAGGCAGGTCTTTGAAGGATTTGTTCTTAATCATATGCGAGATGCTCAAAAGGC  
 TGGATGCCTGCTTTTTGTGGGTGAAGAGCAAGAAGAGAAAAACAGGTTGTACACATACAGATGCAGATGGAGAGACA  
 GAGAAAAAAAAGGAAGAAGGCAGAGAAATGCACCAATTCTTGAGCTGTATTATCTCTGGACCTTGGGATTGTGGG  
 AGGCTTTATTTTACTACTGATTTTGCCTACACTGTTTTCTCAATTTCTAGTTTTCTACAAAGATGATGTGTTAGC  
 TTTTTACGCAAAAAGATTAAATTTAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 765**

MRQELRALEQEKPQLLIFSRRKPSVMTPTTEGLDTGEMSNSTSSLKRQRLGSEARAASHVAQANLKLLDVSKIFPIA  
EIAGKSHEESSPEVVPVELLCVPSPASQGD LHTKPLGTDDDFWGPTGVPVATEVVDKEKNLYRVHFPVAGSYRWP  
TGLCFVMREAVTVEIEFCVWDQFLGEINPQHSWMVAGPLLDIKAEPGAVEAVHLPHFVALQGGHVDTSLFQMAHF  
KEEGMLLEKPARVELHHIVLENPSFSPLGVLLKMIHNALRFIPVTSVLLYHRVHPPEEVTFHLYLIPSDCSIRKA  
IDDLEMKFQFVRIHKPPPLTPLYMGCRYTVSGSGSGMLEILPKELELCYRSPGEDQLFSEFYVGHLGSGIRLQVK  
DKKDETLVWEALVKPGRNTSQPWNLCNRDARRY

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**FIGURE 766**

GAATTCCCAAACGTGCACAGGGGAGTGAGGGCAGGGCGCTCGCAGGGGGCACGCAGGGAGGGCCCAGGGCGCCAG  
GGAGGCCGCGCCGGGCTAATCCGAAGGGGCTGCGAGGTCAGGCTGTAACCGGGTCAATGTGTGGAATATTGGGGG  
GCTCGGCTGCAGACTTGGCCAAATGGACGGGACTATTAAGGAGGCTCTGTCGGTGGTGAGCGACGACCAGTCCCT  
CTTTGACTCAGCGTACGGAGCGGCAGCCCATCTCCCCAAGGCCGACATGACTGCCTCGGGGAGTCCTGACTACGG  
GCAGCCCCACAAGATCAACCCCTCCCACCACAGCAGGAGTGGATCAATCAGCCAGTGAGGGTCAACGTCAAGCG  
GGAGTATGACCACATGAATGGATCCAGGGAGTCTCCGGTGGACTGCAGCGTTAGCAAATGCAGCAAGCTGGTGGG  
CGGAGGCGAGTCCAACCCCATGAACTACAACAGCTATATGGACGAGAAGAATGGCCCCCTCCTCCCAACATGAC  
CACCAACGAGAGGAGAGTCACTCGTCCCCGAGACCCACACTGTGGACACAGGAGCATGTGAGGCAATGGCTGGA  
GTGGGCCATAAAGGAGTACAGCTTGATGGAGATCGACACATCCTTTTTCCAGAACATGGATGGCAAGGAACGTG  
TAAAATGAACAAGGAGGACTTCTCCGCGCCACCACCTCTACAACACGGAAGTGCTGTTGTACACCTCAGTTA  
CCTCAGGGAAAGTTCACTGCTGGCCTATAATACAACCTCCCACACCGACCAATCCTCACGATTGAGTGTCAAAGA  
AGACCTTCTTATGACTCAGTCAGAAGAGGAGCTTGGGGCAATAACATGAATTCTGGCCTCAACAAAAGTCTCC  
CCTTGAGGGGCACAAACGATCAGTAAGAATACAGAGCAACGGCCCCAGCCAGATCCGTATCAGATCCTGGGGCC  
GACCAGCAGTCGCCTAGCCAACCTGGAAGCGGGCAGATCCAGCTGTGGCAATTCCTCCTGGAGCTGCTCTCCGA  
CAGCGCCAACGCCAGCTGTATCACCTGGGAGGGGACCAACGGGGAGTTCAAAATGACGGACCCCGATGAGGTGGC  
CAGGCGCTGGGGCGAGCGGAAAAGCAAGCCCAACATGAATTACGACAAGCTGAGCCGGGCCCTCCGTTATTACTA  
TGATAAAAACATTATGACCAAAGTGCACGGCAAAAGATATGCTTACAAATTTGACTTCCACGGCATTGCCAGGC  
TCTGCAGCCACATCCGACCGAGTCGTCCATGTACAAGTACCCTTCTGACATCTCCTACATGCCTTCCTACCATGC  
CCACCAGCAGAAGGTGAACTTTGTCCCTCCCCATCCATCCTCCATGCCTGTCACTTCCTCCAGCTTCTTTGGAGC  
CGCATCACAATACTGGACCTCCCCACGGGGGAATCTACCCCAACCCCAACGTCCCCGCCATCCTAACACCCA  
CGTGCTTCACACTTAGGCAGCTACTACTAGAGCTTCTTCTAGCTGAAGCCCATCCTGCACACTTACTGGATGC  
TTTGGACTCAACAGGACATATGTGGCCTTGAAGGGAAGACAAAACCTGGATGTTCTTTCTTGTGGATAGAACCTT  
TGTATTTGTTCTTTAAAAACATTTTTTTTAAATGTTGGTAACTTTTGCTTCCTCTACCTGAACAAAGAGATGAATA  
ATTCCATGGGGCAGTATGCCAGTTTGAATTCTCAGTCTCCTAGCATCTTGTGAGTTGCATATTAAGATTACTGGA  
ATGGTTAAGTCATGGTTCTGAGAAAGAAGCTGTACGTTTTCTTTATGTTTTTATGACCAAAGCAGTTTCTTGTC  
ATACACGGGGTTCACTATGACACAGAATCATGGACTTAACCCGTCATGTTCTGGTTTGAGATTTAGTGACAAATA  
GAGGTGGGAAGCTTATAATCTAATTTTAGGAGGACCAAAATTCAGCGGATGGCAACTGGAACATTGATTGTAAGGC  
CAGTGAAGTTTTACCCAACCTGGAATTTGATGGAAGAAGGTTTTGTGTGTTTAAGACGCCAAGGGCATTGCAGAA  
TCCCTCTCAGTGGACAGTATGCACTCAGCTGACCCTCTCTCTAGAAATAGTCAAGATATGAACAAAGAAATTTT  
AATGCAAATACATACATTCTGAAAGACGGGGAATTAATTTACTAATTTTTTTTTTTTTTAAATGATGACAGTGGTC  
CCAGAACTTGAAAAGTTGTAGGGATTTCTAAACTCAAGCAGATTTCGCAAGTGCTGTGCGCTTGTGACACCATCA  
GACCAGGGCCAACCAATCAGAAGGCAACTTACTGTATAAATTATGCAGAGTTATTTTCTATATCTCAGATATT  
AAAAAATAAATAATTAAAAATTAAGAATAAATAAACGAGTTGACCTCGGTCACAAAAGCAGTTTTACTATCGAAT  
CAATCGCTGTTATTTTTTTTTTAAATGTAATTTGTACATCTTTTTCAATCTGTACATTTGGGCTGTCTTGATGTT  
TTTATGCTCCTTTTTTAAAGCATAATATGCCTATAGCTGAAAAGGAAACAGGGCTGTTTAAGTCACTGACTTAT  
GAGAAAGCAAAGCACTGGTACAGTTATTTAACAGGCATACACAAGCAGGAAAAGATAATCCATTTAGATCTTTA  
ATGCTTTGGAAATGCGTGTAACAGTACTGCAATAATCACAGCTCTGGGAAAAACAACGAACTTTCCCTTGTTGA  
GAGGAGGGATTTTCTGCTCTATATAAGCAACATATTTTGTAGACATTAAATATATATAATTTTGCAGGTAATTG  
TTGACTTTTTTAACTATATTAAGTGTTAAGCTGACAACCTGTCAAAGAAGACCATGTTGTAAATAATTTGACTAA  
ATAAATGGTTCCTTCTCTCAAAAAAAAAAAAAA

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**FIGURE 767**

MDGTIKEALSVVSDQSLFDSAYGAAHLPKADMTASGSPDYGQPHKINPLPPQQEWINQPVRVNVKREYDHMNG  
SRESPVDCSVSKCSKLVGGGESNPMNYNSYMDEKNGPPPNMTTNERRVIVPADPTLWTQEHVRQWLEWAIKEYS  
LMEIDTSFFQNMDGKELCKMNKEDFLRATTLYNTEVLLSHLSYLRESSLLAYNTTSHTDQSSRLSVKEDPSYDSV  
RRGAWGNMNSGLNKSPPLGGAQTISKNTEQRPQDPYQILGPTSSRLANPGSGQIQLWQFLLLELLSDSANASCI  
TWEGTNGEEKMTDPDEVARRWGERKSKPNMNYDKLSRALRYYYDKNIMTKVHGKRYAYKFDFHGIAQALQPHPT  
SSMYKYPDISYMP SYHAHQKVNFPVPPHSSMPVTSSSFFGAASQYWTSPGTGGIYPNPVPRHPNTHVPSHLGS  
YY

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**FIGURE 768**

GTTTGTGGCTGCGGCAGCAGGTAGCAAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGA  
 ACCAGCGGTTACCA**ATG**GAGGGGATCAGTATATACACTTCAGATAACTACACCGAGGAAATGGGCTCAGGGGACTA  
 TGACTCCATGAAGGAACCCGTGTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCCACCATCTACTC  
 CATCATCTTCTTAAGTGGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAACTGAGAAG  
 CATGACGGACAAGTACAGGCTGCACCTGTGAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGCAGT  
 TGATGCCGTGGCAAAC**T**GGTACTTTGGGAACCTTCCTATGCAAGGCAGTCCATGTCTACACAGTCAACCTCTA  
 CAGCAGTGTCTCATCCTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAG  
 GCCAAGGAAGCTGTTGGCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGA  
 CTTTCATCTTTGCCAACGTCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGT  
 GGTGTGTTCAGTTTCAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCATCCTGCTCTGCTATTGCAT  
 TATCATCTCCAAGCTGTCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCT  
 GGCTTTCTTCGCCGTGTTGGCTGCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAA  
 GCAAGGGTGTGAGTTTGAGAACACTGTGCACAAGTGGATTTCATCACCGAGGCCCTAGCTTTCTTCCACTGTTG  
 TCTGAACCCCATCCTCTATGCTTTCCCTGGAGCCAAATTTAAAACCTCTGCCCAGCACGCACTCACCTCTGTGAG  
 CAGAGGGTCCAGCCTCAAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCATCTGTTTCCACTGAGTCTGAGTC  
 TTCAAGTTTTCACTCCAGCT**TAA**CACAGATGTAAAAGACTTTTTTTTATACGATAAAATAACTTTTTTTTAAGTTAC  
 ACATTTTTTCAGATATAAAAGACTGACCAATATTGTACAGTTTTTTATTGCTTGTGGATTTTTGTCTTGTGTTTCT  
 TTAGTTTTTGTGAAGTTTAATTGACTTATTTATATAAAATTTTTTTTGTTCATATTGATGTGTGTCTAGGCAGGA  
 CCTGTGGCCAAGTTCTTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAAAAGGGAAGTGAACATTCCAGAGCGT  
 GTAGTGAATCACGTAAAGCTAGAAATGATCCCCAGCTGTTTATGCATAGATAATCTCTCCATTCCCGTGGAACGT  
 TTTTCCTGTTCTTAAGACGTGATTTTGCTGTAGAAGATGGCACTTATAACCAAAGCCCAAAGTGGTATAGAAATG  
 CTGGTTTTTCAGTTTTTCAGGAGTGGGTTGATTTTCAGCACCTACAGTGTACAGTCTTGTATTAAGTTGTTAATAAA  
 AGTACATGTTAACTTACTTAGTGTTATG

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**FIGURE 769**

MEGISIYTS DNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVMGYQKKLRSM TDK  
YRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVLILAFISLD RYLAIVHATNSQRPRKL  
LAEKVVYVGVWIPALLLTIPDFIFANVSEADDRYICDRFYPNDLWVVVFQFHIMVGLILPGIVILSCYCI IISK  
LSHSGHGQKRKALKTTVILILAFFACWLPYYIGISIDSFILLEI IKQCEFENTVHKWISITEALAFFHCCLNPI  
LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS

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**FIGURE 770**

TGCCTGCTGAGGGTGGAGACCCACGAGCCGAGGCCTCCTGCAGTGTTCTGCACAGCAAACCGCACGCT**ATG**GCTG  
ACAGCCGGGATCCCCGCCAGCGACCAGATGCAGCACTGGAAGGAGCAGCGGGCCGCGCAGAAAGCTGATGTCCTGA  
CCACTGGAGCTGGTAACCCAGTAGGAGACAACTTAATGTTATTACAGTAGGGCCCCGTGGGCCCCCTTCTTGTTT  
AGGATGTGGTTTTCTACTGATGAAATGGCTCATTTTTGACCGAGAGAGAATTCCTGAGAGAGTTGTGCATGCTAAAG  
GAGCAGGGGCCCTTTGGCTACTTTGAGGTACACATGACATTACCAAATACTCCAAGGCAAAGGTATTTGAGCATA  
TTGGAAAGAAGACTCCCATCGCAGTTTCGGTTCTCCACTGTTGCTGGAGAATCGGGTTCAGCTGACACAGTTTCGGG  
ACCCCTCGTGGGTTTGCAGTGAAATTTTACACAGAAGATGGTAACCTGGGATCTCGTTGGAAATAACACCCCCATTT  
TCTTCATCAGGGATCCCATATTGTTTCCATCTTTTATCCACAGCCAAAAGAGAAATCCTCAGACACATCTGAAGG  
ATCCGGACATGGTCTGGGACTTCTGGAGCCTACGTCTGAGTCTCTGCATCAGGTTTCTTTCTTGTTTCAGTGATC  
GGGGGATTCAGATGGACATCGCCACATGAATGGATATGGATCACATACTTTCAAGCTGGTTAATGCAAATGGGG  
AGGCAGTTTATTGCAAATTCATTATAAGACTGACCAGGGCATCAAAAACCTTTCTGTTGAAGATGCGGCGAGAC  
TTTCCCAGGAAGATCCTGACTATGGCATCCGGGATCTTTTAAACGCCATTGCCACAGGAAAGTACCCCTCCTGGA  
CTTTTTACATCCAGGTCATGACATTTAATCAGGCAGAACTTTTCCATTTAATCCATTTCGATCTCACCAAGGTTT  
GGCCTCACAAAGGACTACCCTCTCATCCAGTTGGTAAACTGGTCTTAAACCGGAATCCAGTTAATTACTTTGCTG  
AGGTTGAACAGATAGCCTTCGACCCAAGCAACATGCCACCTGGCATTGAGGCCAGTCTGACAAAATGCTTCAGG  
GCCGCCCTTTTGCCTATCCTGACACTCACCGCCATCGCCTGGGACCCAATTATCTTCATATACCTGTGAAGTGTC  
CCTACCGTGCTCGAGTGGCCAACCTACCAGCGTGATGGCCCGATGTGCATGCAGGACAATCAGGGTGGTGCTCCAA  
ATTACTACCCCAACAGCTTTGGTGCTCCGGAACAACAGCCTTCTGCCCTGGAGCACAGCATCCAATATTCTGGAG  
AAGTGCGGAGATTCAACACTGCCAATGATGATAACGTTACTCAGGTGCGGGCATTCTATGTGAACGTGCTGAATG  
AGGAACAGAGGAAACGTCTGTGTGAGAACATTGCCGGCCACCTGAAGGATGCACAAATTTTCATCCAGAAGAAAG  
CGGTCAAGAACTTCACTGAGGTCCACCCTGACTACGGGAGCCACATCCAGGCTCTTCTGGACAAGTACAATGCTG  
AGAAGCCTAAGAATGCGATTACACCTTTGTGCAGTCCGGATCTCACTTGGCGGCAAGGGAGAAGGCAAATCTGT  
**G**AGGCCGGGGCCCTGCACCTGTGCAGCGAAGCTTAGCGTTCATCCGTGTAACCCGCTCATCACTGGATGAAGATT  
CTCCTGTGCTAGATGTGCAATGCAAGCTAGTGGCTTCAAAATAGAGAATCCCACTTTCTATAGCAGATTGTGTA  
ACAATTTTAATGCTATTTCCCCAGGGGAAAATGAAGGTTAGGATTTAACAGTCATTTAAAAAATAATTTGTTTT  
GACGGATGATTGGATTATTCATTTAAAATGATTAGAAGGCAAGTTTCTAGCTAGAAATATGATTTTATTTGACAA  
AATTTGTTGAAATTATGTATGTTTACATATCACCTCATGGCCTATTATATTAAATATGGCTATAAATATATAAA  
AAGAAAAGATAAAGATGATCTACTCAGAAATTTTTATTTTTCTAAGGTTCTCATAGGAAAAGTACATTTAATACA  
GCAGTGTCATCAGAAGATAACTTGAGCACCGTCATGGCTTAATGTTTATTCCTGATAATAATTGATCAAATTCAT  
TTTTTTCACTGGAGTTACATTAATGTTAATTCAGCACTGATTTACAACAGATCAATTTGTAATTGCTTACATTT  
TTACAATAAATAATCTGTACGTAAGAACA

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**FIGURE 771**

MADSRDPASDQMQRHWKEQRAAQKADVLTGAGNPVGDKLNVI TVGPRGPLLVDVVFTDEMAHFDRERIPERVVH  
AKGAGAFGYFEVTHDITKYSKAKVFEHIGKKTPIAVRFSTVAGESGSADTVRDPRGFAVKFYTEDGNWDLVGNNT  
PIFFIRDPILFPSFIHSQKRNPQTHLKDPDMVWDFWSLRPESLHQVSFLFSDRGIPDGHRHMNGYGSHTFKLVNA  
NGEAVYCKFHYKTDQGIKNLSVEDAARLSQEDPDYGIRDLFNATGKYPSTFYIQVMTFNQAETFPFNPFDLT  
KVWPHKDYPLIPVGKLVNRRNPVNYFAEVEQIAFDPSNMPPGIEASPDKMLQGRLFAYPDTHRHRLGPNYLHIPV  
NCPYRARVANYQRDGPMMCQDNQGGAPNYYPNSFGAPEQQPSALEHSIQYSGEVRRFNTANDDNVTQVRAFYNV  
LNEEQRKRLCENIAGHLKDAQIFIQKKAVKNFTEVHPDYGSHIQALLDKYNAEKPKNAIHTFVQSGSHLAAREKA  
NL

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**FIGURE 772A**

ACAGCACAGACAGATTGACCTATTGGGGTGTTTTCGCGAGTGTGAGAGGGAAGCGCCGCGGCCTGTATTTCTAGAC  
CTGCCCTTCGCTGGTTCGTGGCGCCTTGTGACCCCGGGCCCTGCCGCTGCAAGTCGGAATTCGCTGTGCT  
CCTGTGCTACGGCCTGTGGCTGGACTGCCTGCTGCTGCCAACTGGCTGGCAAGATGAAGCTCTCCCTGGTGGCC  
GCGATGCTGCTGCTGCTCAGCGCGGCGCGGGCCGAGGAGGAGGACAAGAAGGAGGACGTGGGCACGGTGGTGGC  
ATCGACCTGGGGACCACCTACTCCTGCGTCGGCGTGTTCAAGAACGGCCGCGTGGAGATCATCGCCAACGATCAG  
GGCAACCGCATCACGCCGTCTATGTGCGCTTCACTCCTGAAGGGGAACGTCTGATTGGCGATGCCGCCAAGAAC  
CAGCTCACCTCCAACCCGAGAACACGGTCTTTGACGCCAAGCGGCTCATCGGCCGACGTGGAATGACCCGTCT  
GTGCAGCAGGACATCAAGTTCTTGCCGTTCAAGGTGGTTGAAAAGAAAATAAACCATAACATTCAAGTTGATATT  
GGAGGTGGGCAAAACAAAGACATTTGCTCCTGAAGAAATTTCTGCCATGGTTCTCACTAAAATGAAAGAAACCGCT  
GAGGCTTATTTGGGAAAGAAGGTTACCCATGCAGTTGTTACTGTACCAGCCTATTTTAAATGATGCCAACGCCAA  
GCAACCAAAGACGCTGGAACATTTGCTGGCCTAAATGTTATGAGGATCATCAACGAGCCTACGGCAGCTGCTATT  
GCTTATGGCCTGGATAAGAGGGAGGGGAGAAGAACATCCTGGTGTGTTGACCTGGGTGGCGGAACCTTCGATGTG  
TCTCTTCTCACCATTGACAATGGTGTCTTCGAAGTTGTGGCCACTAATGGAGATACTCATCTGGGTGGAGAAGAC  
TTTGACCAGCGTGTCTATGGAACACTTCATCAAACTGTACAAAAGAGACGGGCAAAGATGTCAGGAAAGACAAT  
AGAGCTGTGCAGAACTCCGGCGCGAGGTAGAAAAGGCCAAACGGGCCCTGTCTTCTCAGCATCAAGCAAGAATT  
GAAATTGAGTCCTTCTATGAAGGAGAAGACTTTTCTGAGACCCTGACTCGGGCCAAATTTGAAGAGCTCAACATG  
GATCTGTTCCGGTCTACTATGAAGCCCCTCCAGAAAGTGTGGAAGATTCTGATTTGAAGAAGTCTGATATTGAT  
GAAATTGTTCTTGTGGTGGCTCGACTCGAATTCCAAAGATTGAGCAACTGGTTAAAGAGTTCTTCAATGGCAAG  
GAACCATCCCGTGGCATAAACCAGATGAAGCTGTAGCGTATGGTGTGCTGTCCAGGCTGGTGTGCTCTCTGGT  
GATCAAGATACAGGTGACCTGGTACTGCTTGATGTATGTCCCTTACACTTGGTATTGAACTGTGGGAGGTGTC  
ATGACCAAACCTGATTCCAAGGAACACAGTGGTGCCTACCAAGAAGTCTCAGATCTTTTCTACAGCTTCTGATAAT  
CAACCAACTGTTACAATCAAGGTCTATGAAGGTGAAAGACCCCTGACAAAAGACAATCATCTTCTGGGTACATTT  
GATCTGACTGGAATTCCTCCTGCTCCTCGTGGGGTCCACAGATTGAAGTCACCTTTGAGATAGATGTGAATGGT  
ATTCTTCGAGTGACAGCTGAAGACAAGGGTACAGGGAACAAAATAAGATCACAATCACCATGACCAGAATCGC  
CTGACACCTGAAGAAATCGAAAGGATGGTTAATGATGCTGAGAAGTTGCTGAGGAAGACAAAAGCTCAAGGAG  
CGCATTGATACTAGAAATGAGTTGGAAGCTATGCCTATTCTCTAAAGAATCAGATTGGAGATAAAGAAAAGCTG  
GGAGGTAAACTTTCTCTGAAGATAAGGAGACCATGGAAGAAAGCTGTAGAAGAAAAGATTGAATGGCTGGAAAGC  
CACCAAGATGCTGACATTGAAGACTTCAAAGCTAAGAAGAAGGAAGTGAAGAAATTGTTCAACCAATTATCAGC  
AAACTCTATGGAAGTGCAGGCCCTCCCCAACTGGTGAAGAGGATACAGCAGAAAAGATGAGTTGTAGACACTG  
ATCTGCTAGTGCTGTAATATTGTAATACTGGACTCAGGAACTTTTGTAGGAAAAAATTGAAAGAAGTTAAGTC  
TCGAATGTAATTGGAATCTTACCTCAGAGTGGAGTTGAAACTGCTATAGCCTAAGCGGCTGTTTACTGCTTTTC  
ATTAGCAGTTGCTCACATGTCTTTGGGTGGGGGGGAGAAGAAGAAATTGGCCATCTTAAAAAGCAGGTAAAAAACC  
TGGGTAGGGTGTGTGTTACCTTCAAATGTTCTATTTAACTGGGTGATGTGCATCTGGTGTAGGAAGTTT  
TTTCTACCATAAGTGACACCAATAAATGTTTGTATTTTACACTGGTCTAATGTTTGTGAGAAGCTTCTAATTAGA  
TCAATTACTTATTTTAGGAAATTTAAGACTAGATACTCGTGTGTGGGTGAGGGGAGGAGTATTTGGTATGTTG  
GGATAAGGAAACACTTCTATTTAATGCTTCCAGGATTTTTTTTTTTTTTTTAAACCCTCCTGGGCCCAAGTGA  
TCCTTCCACCTCAGTCTCCAGCTAATTGAGACCACAGGCTTGTACCACCATGCTCGGCTTTTGCATTAATCTA  
AGAAAAGGGGAGAGAAGTTAATCCACATCTTTACTCAGGCAAGGGGCATTTACAGTGCCCAAGAGTGGGGTTTT  
CTTGAACATACTTGGTTTCCATTTCCCTTATCTTTCTAAACTGCCTTTCTGGTGGCTTTTTTAAATTTATT  
ACTAATGATGCTTTTATAGCTGCTTGGATTCTCTGAGAAATGATGGGGAGTGAGTGATCACTGGTATTAACTTTA  
TACACTTGGATTTTCAATTTGTAACCTTTAGGATGTAAAGGTATATTGTGAACCTAGCTGTGTGAGAATCTCCATCC  
CTGAAATTTCTCATTAGTGGTACTGGGGTGGGATCTTGGATGGTGACATTGAAACTACACTAAATCCCCTCACTA  
TGAATGGGTGTTGTTAAAGGCAATGGTTTGTGTCAAACCTGGTTTAGGATTACTTAGATTGTGTTTCTGAAGAAAAG  
AGTCCAGGTAAATGGTATGATCAATAAAGGACAGGCTGGTGCTAACATAAAATCCAATATTGTAATCCTAGCACT  
TTGGGAGGCCAAGGCGGGTGGATCACAAGGTCAAGAGATAGAGACCATCTTTGCCAACATGGTGAAACTCCATCT  
CTACTGAAAATACAAAAATTAGCTGGGCGTGGTAGTGCAAGCTGAAGGCTGAGGCAGGAGAATCACTCGAACCCG  
GGAGGCAGAGGTTGCAGTGAGCCGAGATCACACCACTGTACTCCAGCCCCGCACTCCAGCCTGGCGACAAGAGTG  
AGACTCCACCTCAAAAAAAAAAAAAAGAATCCAATACTGCCCAAGGATAGGTATTTTATAGATGGGCAACTGGCT



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**FIGURE 772B**

GAAAGGTTAATTCTCTAGGGCTAGTAGAACTGGATCCCAACACCAAACCTCTTAATTAGACCTAGGCCTCAGCTGC  
ACTGCCCCGAAAAGCATTGTTGGGCAGACCCTGAGCAGAATACTGGTCTCAGGCCAAGCCCAATACAGCCATTAAAGA  
TGACCTACAGTGCTGTGTACCCTGGGGCAATAGGGTTAAATGGTAGTTAGCAACTAGGGCTAGTCTTCCCTTACC  
TCAAAGGCTCTCACTACCGTGGACCACCTAGTCTGTAACCTTTCTGAGGAGCTGTTACTGAATATTAAAAAGAT  
AGACTTCAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 773**

MKLSLVAAMLLLLSAARAEEDKKEDVGTVVGIDLGTTYSCVGVFKNGRVEIIANDQGNRITPSYVAFTPEGERL  
IGDAAKNQLTSNPENTVFDARLIGRTWNDPSVQQDIKFLPFKVVEKKTOPYIQVDIGGGQTKTFAPEEISAMVL  
TKMKETAAYLGKKVTHAVVTPAYFNDAQRQATKDAGTIAGLNMRIINEPTAAAIAYGLDKREGEKNILVFDL  
GGGTFDVSLTIDNGVFEVVATNGDTHLGGEDFDQVRMEHFILYKKKTGKDVRKDNRAVQKLRRVEKAKRALS  
SQHQARIEIESFYEGEDFSETLTRAKFEELNMDLFRSTMKPVQKVLSDLLKSDIDEIVLVGGSTRIPKIQQLV  
KEFFNGKEPSRGINPDEAVAYGAAGVLSGDQDTGDLVLLDVCPLTLGIETVGGVMTKLIPRNTVVPTKKSQI  
FSTASDNQPTVTIKVYEGERPLTKDNHLLGTFDLTGIPAPRGVPQIEVTFEIDVNGILRVTAEDKGTGNKNKIT  
ITNDQNRLTPEEIERMVNDAEKFAEEDKKLKERIDTRNELESYAYSLKNQIGDKEKLGGKLSSDKETMEKAVEE  
KIEWLESHQDADIEDFKAKKKELEEIVQPIISKLYGSAGPPPTGEEDTAEKDEL

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**FIGURE 774A**

TCTCACTATAGGGCTCGAGCGGCCGCCGGGCGAGGTCTGACCACAGTGGTTCCGGGGAGAAGCCTTCCAGGACCC  
 ATGTGTAGGCACAACCTGTTTTCCCTGATCAGGATACTTCCGGCACTCAACAGAGGAAAGAAATTCCTAAGGGAAC  
 ACTGCTCAGAAAGTACTGCAGCATGTCTTCAAATGCCTGAGGATCAAGTTGGAAAACCTAGAAGCAACAGAAAACA  
 CAATAAGCGCAATGCGCGCGGCCGCCGGGCGAGCAGCAACAGTTCTACCTGCTGCTGGGAAACCTGCTCAGCCCCG  
 ACAATGTGGTCCGGAACAGGCAGAGGAAACCTATGAGAATATCCCAGGCCAGTCAAAGATCACATTCTCTTAC  
 AAGCCATCAGAAATACAACAGCTGCTGAAGAGGCTAGACAAATGGCCGCCGTTCTCCTAAGACGTCTCTTGTCTT  
 CTGCATTTGATGAAGTCTATCCAGCACTTCCCTCTGATGTTTCAGACTGCCATCAAGAGTGAGCTACTCATGATTA  
 TTCAGATGGAAACACAATCTAGCATGAGGAAAAAGTTTGTGATATTGCGGCAGAACTGGCCAGGAATTTAATAG  
 ATGAGGATGGCAATAACCAGTGGCCCGAAGGTTTGAAGTTCCCTTTTGTATTAGTCAGCTCTCAAATGTGGGAC  
 TGCGGGAAGCTGCCCTTACATTTTCTGGAACCTTCTGGAATTTTGGGAACCAGCAACAACACTATTTAGATG  
 TCATCAAACGAATGTTAGTTAGTGTATGCAAGATCAGGAACACCCGTCGATCAGGACGTTATCTGCTAGAGCTA  
 CAGCTGCATTTATACTTGCAAATGAGCATAATGTTGCTCTGTTCAAACATTTTGCAGACTTGCTACCGGGATTCC  
 TACAGGCGGTAAATGACTCGTGCTACCAGAATGATGATTCTGTCTTAAATCCCTCGTTGAGATTGCAGATACTG  
 TTCCAAAGTATTTGCGTCTCTCACTTGGGAAGCAACTCTACAGCTAAGTCTAAAGTTGTGTGGAGACACTAGCCTCA  
 ACAATATGCAACGCCAGCTTGCCCTTGAAGTGATCGTCAACCTCTCTGAGACTGCAGCTGCTATGTTAAGAAAAAC  
 ATACCAATATTGTTGCACAGACTATTCTTCAGATGTTAGCAATGATGGTTGATTGGAAGAAGATGAGGACTGGG  
 CAAATGCAGATGAAGTAGAAGATGATGATTTTGACAGCAATGCAGTTGCAGGCGAGAGTGCTCTAGATCGAATGG  
 CTTGCGGACTTGGTGGAAAGCTCGTTCTGCCGATGATCAAGGAACACATTATGCAAATGCTTCAAATCTCTGACT  
 GGAAATACCGGCATGCAGGATTGATGGCCTTATCTGCCATTGGTGAAGGTTGCCACCAGCAATGGAAGGAATTC  
 TAAATGAGATCGTAAATTTGTTTTACTTTTTCTCCAGGATCCTCATCCAAGAGTAAGGTATGCAGCCTGTAATG  
 CCGTGGGACAGATGGCTACAGATTTTGCACCTGGTTTCCAAAAGAAATTTTATGAGAAGGTGATTGCAGCTCTGC  
 TGCAGACCATGGAAGACCAAGGCAATCAACGTGTGCAGGCCCATGCAGCTGCTGCCCTCATTAACTTTACTGAAG  
 ACTGTCCCAAGTCACTACTTATTCCATACTTGATAATTTGGTGAACATCTGCATTCCATTATGGTACTGAAGC  
 TTCAAGAGCTGATTAGAAAGGCACCAAGTTAGTTTGGAAACAAGTTGTGACATCCATTGCATCAGTTGCCGATA  
 CTGCAGAAGAAAAATTTGTCCCTACTATGATTTATTTATGCCATCACTGAAGCACATCGTTGAGAATGCGGTTT  
 AAAAAAGAACTGAGACTTCTGAGAGGAAAAACTATTGAATGCATTAGCCTCATTGGTCTGGCTGTTGGGAAGGAAA  
 AATTCATGCAGGATGCATCAGATGTGATGCAGCTTTTGTAAAGACCCAGACAGACTTCAATGATATGGAAGATG  
 ATGATCCTCAGATCTCTTACATGATCTCAGCATGGGCCAGAATGTGCAAAATCCTTGGAAAAGAATTTAGCAAT  
 ACCTTCCAGTGGTTATGGGGCCTTTAATGAAGACGGCTTCAATTAAGCCCGAAGTAGCCCTTTTAGATACCCAAG  
 ACATGGAGAATATGAGTGATGATGATGTTGGGAATTTGTGAACCTTGGAGATCAGCAAAGCTTTGGTATTAAAA  
 CTGCAGGACTAGAAGAAAAATCAACTGCTTGCCAGATGTTGGTTTGCTATGCTAAGGAGTTAAAGGAAGGCTTTG  
 TGGAGTACACCGAACAGGTTGTCAAACCTGATGGTCCCTTTACTGAAATTTTATTCCACGATGGTGTTCGAGTGG  
 CAGCAGCGGAATCCATGCCTCTTCTCCTGGAGTGTGCAAGAGTCCGTGGTCTGAGTATCTCACACAGATGTGGC  
 ATTTTATGTGTGATGCTCTAATTAAGGCCATTGGTACAGAACCAGATTTCAGACGTCCTCTCAGAAATAATGCATT  
 CTTTGTCAAAGTGCAATTGAAGTAATGGGAGATGGATGCCTTAATAATGAACACTTTGAAGAACTGGGAGGTATAT  
 TGAAAGCAAAGCTTGAAGAACATTTAAAAATCAAGAATTACGACAAGTTAAAGACAAGATGAAGACTATGATG  
 AACAGGTTCGAAGAGTCACTACAAGATGAGGATGATAATGATGTTTATATTCTGACCAAAGTGTGAGATATTTTAC  
 ACTCAATATTAGTAGCTACAAAGAAAAGGTGTTACCATGGTTTGAACAGCTGCTTCCATTAATTGTCAACCTCA  
 TTTGTCCACATAGACCATGGCCAGACAGACAATGGGGATTATGCATCTTTGATGATGTGATAGAACACTGTAGTC  
 CAGCCTCATTTAAATACGCAGAATATTTCTTAAGACCAATGCTCCAATATGTATGTGACAACAGCCCAGAAGTCA  
 GGCAAGCAGCTGCATATGGCCTGGGAGTCATGGCACAGTACGGTGGAGATAATTATCGCCCTTTTGTACAGAAG  
 CACTTCCCTTGCTGGTAAGAGTTATTAGTCTGCGGATTCTAAGACCAAAGAAAATGTCAATGCTACAGAGAACT  
 GCATCTCAGCAGTAGGGAAAATCATGAAGTTCAAGCCTGACTGTGTAAACGTTGAAGAGGTCTTCCACACTGGT  
 TGTCTTGGCTTCCACTACATGAAGATAAAGAAGAAGCTGTTCAAGCTTTCAATTATCTGTGTGACCTGATTGAAA  
 GTAATCATCCAATTGTTCTTGGCCCAAACAATACCAATCTGCCCAAATATTTAGTATAATTGCGGAAGGAGAAA  
 TGCACGAGGCAATTAAACATGAAGATCCTTGTGCCAAACGCTCTGGCCAATGTCGTTGCGCAAGTACAGACTTCTG  
 GAGGACTGTGGACTGAGTGCATAGCACAGCTCAGTCTGAGCAGCAGGCCGCCATTTCAGGAGCTCCTGAACTCTG  
 CGTGAAGGCGCTTAATGTCACCCACCAGAAAATACTCCAATAAACGCTTACCCTTTTCTTTAGGTTTCTTTG

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**FIGURE 774B**

TTTTGTTTTTGAGCAAAGAGATCGGTAGTGTTGTGTGTAGGCCATTCTTCTGGAGAGCCACAAGCAGGAAGAGC  
AGCGCTGTGTTGCAGAATGGAGTTTCCATGGATTTCTACCAGACCACTGAAGGAGTTCCTGGAAGCCCTGCGTAC  
GTAGCACTGAAGACTATTTTTCTATTGGTATAACCCGCCACCTGAAGGGGAAAGGGAAATCAAATTAATTTTTTC  
TCGTTAGACATAAGGAAATTTAAGGAAAAACAGCTTTAAGAACAGTTACTCAGCGTAGATGTGTGTTACACAAA  
TTGCCTTGCATTCAGTGTTCAATTGTGAATTGGGAGTGTGAGTCTTTCTGTAGGGTACAAAGAAGCCTCCTACCCA  
GCAAACCAGTAGACCCAAAAGTTGAAAAAACTGGATGACAGACAACAAGCATGAAGATGGCATATTTGATGTCA  
CTTTGGTTCTTTTTCCCAGAAGGCTTATACAGTGA CTGAGTCGGGAAGCTTTCCAGCTTCAGCCCTTGAATGTGA  
AGTGTCAATTGGCATGTCTGGCAGTAGTCTCTCATTCACTCCCAATAAACACATTGAATACAAAAGAGGCTTGTG  
TAAAAACTCAGTACTGTCTGGCTTGGATTCAATTCATGTTTTTTAATATAAGAATGATCTAATATTTTTTTAAAG  
TAATAGCTATCAGTAATAGCTGAGTGTTTTTTCCCTAATATTTTCCTTGTGCAATTCAGACTTAAGCATCGAGT  
TTTTACCATCTTCCACTTTAAGCTAAGTTATGATACCTATTCATTACAAATTGGTGTTCTTTTTAAGGTTTGCA  
AATTCAGCCAATTTTGTAGCTAAGATTGTTCTGATCAGCTCAAAAAGATTTGGCTTAGTGTTTTCATTGCAAT  
TATAATTGCTGTAGAGCCACACACAACCTTTTGAACTTTAAATTATAAGTGTTATGGCTAAAGTTATTTACTGAAA  
ATTCAGTAAAATGTGTGAATGTTTCTTTATGTATTAACCTCATAGCAGTAAATGACTTGCTGTTGTTAATTTT  
TCTAAGGCATCTTAATAGACTTCTCTTGGAAAAACCTTTCCAAGGTGTTAACATTTTTATAGTTTGTACTAAATT  
TAACCGTGATATAAAAATGAATTTTATGCATAGATCAGAATTTTAAATTAAAGGTTTTTTCTTTAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 775**

MAAAAAEQQQFYLLLGNLLSPDNVVRKQAEETYENIPGQSKITFLLQAIRNTTAAEEARQMAAVLLRRLSSAFD  
EVYPALPSDVQTAIKSELLMIQMETQSSMRKKVCDIAAELARNLIDEDGNNQWPEGLKFLFDSVSSQNVGLREA  
ALHIFWNFPGIFGNQQQHYLDVIKRLVQCMQDQEHPSIRTL SARATAAFILANEHNVALFKHFADLLPGFLQAV  
NDSCYQNDSDVLKSLVEIADTVPKYLRPHLEATLQLSLKLCGDTSLNNMQRLALEVIVTLSETAAAMLRKHTNI  
VAQTIPQMLAMMVDLEEDWDANADELEDDDFDSNAVAGESALDRMACGLGGKLVLPMIKEHIMQLQNPDWKYR  
HAGLMALSAIGEGCHQQMEGILNEIVNFVLLFLQDPHPRVRYAACNAVGMATDFAPGFQKKFHEKVIAALLQTM  
EDQGNQRVQAHAAAALINFTEDCPKSLLIPYLDNLVKHLHSIMVLKLQELIQKGTKLVLEQVVTSIASVADTAE  
KFVPPYYDLFMPSLKHIVENAVQKELRLLRGKTIECISLIGLAVGKEKFMQDASDVMQLLLKTQTDNDMEDDDPQ  
ISYMISAWARMCKILGKEFQQYLPVVMGPLMKTASIKPEVALLDTDQDMENMSDDDGWEFVNLGDQQSFGIKTAGL  
EEKSTACQMLVCYAKELKEGFVEYTEQVVKLMVPLLKFYFHDGVRVAAAESMPLLECARVRGPEYLTQMWHFMC  
DALIKAIGTEPDSVDLSEIMHSFAKCIEMGDCLNNEHFEELGGILKAKLEEHFKNQELRQVKRQDEDDYDEQVE  
ESLQDEDDNDVYILTKVSDILHSIFSSYKEKVLPWFEQLLPLIVNLICPHRPWPDRQWGLCIFDDVIEHCSPASF  
KYAEYFLRPMQLQYVCDNSPEVRQAAAYGLGVMAQYGGDNYPFCTEALPLLVRVIQSADSKTKENVNATENCISA  
VGKIMKFKPDCVNVVEEVLPHWLSWLPLHEDKEEAVQTFNYLCDLIESNHPIVLGPNNNTNLPKIFSIIAEGEMHEA  
IKHEDPCA KRLANVVRQVQTSGGLWTECIAQLSPEQQAAIQELLNSA

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**FIGURE 776A**

CGAAGGACCTGAAGGAAAGTGAAAAAGTCCAAAGTTTAAAGATGCCAGAGATGCATTTTAAAGACTCCAAAGATATC  
CATGCCAGATATTGACCTGAATCTCACAGGTCCAAAAATAAAAGGAGATGTGGATGTTACAGGCCCTAAGGTAGA  
GGGAGATCTGAAAGGTCCTGAAGTTGACCTCAAAGGCCCCAAAGTGGACATTGATGTCCCAGATGTTAATGTTCA  
GGGTCCAGACTGGCACCTGAAGATGCCCAAGATGAAAATGCCTAAGTTCAGTATGCCTGGCTTCAAAGGAGAGGG  
CCCAGATGGTGGATGTGAAGCTGCCCATAGGCTGACATTGATGTCTCAGGACCAAAGTGGACATTGAAGGCCCTG  
ATGTTAACATTGAAGGACCAGAGGGAAAGTTGAAAGGGCCTAAGTTCAGATGCCAGAGATGAATATCAAAGCCC  
CCAAGATCTCCATGCCTGATATTGACTTAAACCTGAAAGGACCCAAGTGAAGGGTGATGTGGATGTTTCCCTTCC  
TAAAGTGGAAGGTGACCTCAAGGGCCCAGAAGTTGACATCAAGGGCCCAAAGTGGACATTGACGCACCTGATGT  
TGATGTTTCATGGCCCAGACTGGCACCTAAAGATGCCCAAGATGAAAATGCCCAAGTTCAGCATGCCTGGCTTCAA  
AGCAGAGGGCCCTGAAGCTGGAATGTGAACCTGCCCAAGGCTGACGTTGATGTCTCAGGCCCCAAAGTGGATATT  
AATGCCCCAGATGTGGGTGTTCAAGGCCCAGACTGGCACCTGAAGATGCCCAAGGTGAAAATGCCAAAGTTCAGC  
ATGCCTGGCTTCAAAGGAGAGGGCCCAGATGGGGATGTGAAGCTGCCCAAGGCTGACATTGATGTCTCAGGACCC  
AAAGTGGAACATTGAAGGCCCTGATGTTAACATTGAAGGACCAGAGGGAAAGTTGAAAGGGCCTAAGTTCAGATG  
CCAGAGATGAATATCAAAGCCCCAAGATCTCCATGCCTGATATTGACTTAAACCTGAAAGGACCCAAAGTGAAG  
GGTGATGTGGATGTTTCCCTTCTTAAAGTGGAAGGTGACCTCAAGGGCCCAGAAGTTGACATCAAGGGCCCCAAA  
GTGGACATTGACGCACCTGATGTTGATGTTTCATGGCCCAGACTGGCACCTAAAGATGCCCAAGATAAAAATGCCC  
AAGATCAGCATGCCTGGCTTCAAAGGAGAAGGTCCAGATGTGGACGTGAACCTGCCCAAGGCTGACATTGATGTC  
TCAGGACCGAAAGTGGATGTTGAATGTCCCGATGTGAATATCGAAGGACCTGAAGGAAAGTGGAAAAGTCCAAAG  
TTTAAAGATGCCAGAGATGCATTTTAAAGACTCCAAAGATATCCATGCCAGATATTGACCTGAATCTCACAGGTCCA  
AAAATAAAAGGAGATGTGGATGTTACAGGCCCTAAGGTAGAGGGAGATCTGAAAGGTCCTGAAGTTGACCTCAA  
GGCCCCAAAGTGGACATTGATGTCCCAGATGTTAATGTTTCAGGTCCAGACTGGCACCTGAAGATGCCCAAGATG  
AAAATGCCCAAGTTCAGCATGCCTGGCTTCAAAGCAGAGGGCCCTGAAGTGGATGTGAACCTGCCCAAGGCTGAC  
GTTGATGTCTCAGGCCCCAAAGTGGACGTTGAAGGCCCTGATGTTAACATTGAAGGACCAGAGGGAAAGTTGAAA  
GGGCCCAAGTTCAGATGCCAGAGATGAATATCAAAGCCCCAAGATCCCCATGCCTGACTTTGATTTGCATCTG  
AAAGGTCCCAAGGTGAAGGGCCTATGTGGATATTTCTCTGCCCAAAGTGGAAAGGTGACCTCAAGGGCCCTGAAGTT  
GACATCAGGGGTCCCAAAGTGGACATTGATGTCCCGATGTGGGCGTTCAAGGCCCAGACTGGCACCTAAAAATG  
CCCCAAAGTGAATAATGCCCAAATTCAGCATGCCTGGCTTCAAAGGAGAGGGCCCAGATGTGGATGTGAACCTGCC  
AAGGCTGACCTTGATGTCTCAGGACCCAAGGTGGACATTGATGTTCCAGATGTGAATATCGAAGGCCCAGAGGGA  
AAGTTGAAAGGTCCCAAATTCAAAATGCCTGAGATGAACATCAAAGCCCCAAGATCTCCATGCCTGACATTGAT  
CTTAACCTGAAAGGTCCCAAAGTGAAGGGTGACATGGATGTGTCTCTGCCAAAAGTGGAAAGGTGACATGAAAGTT  
CCTGACGTGGATATTAAAGGCCCCAAAGTGGATATTAATGCCCCAGATGTGGATGTTCAAGGCCCAGACTGGCAC  
CTGAAGATGCCTAAAATAAAAATGCCCAAGATCAGCATGCCTGGCTTCAAAGGAGAAGGTCCAGAAGTGGACGTG  
AACCTGCCCAAGGCTGACCTTGACGTCTCAGGACCCAAGGTGGACGTTGATGTTCCAGATGTGAATATTGAAGGT  
CCAGATGCCGAAACTGAAGGGCCCTAAATTCAAGATGCCAGAGATGAACATCAAAGCCCCAAGATCTCCATGCCT  
GACTTTGATTTGCATCTGAAAGGCCCTAAGGTGAAAGGAGATGTGGATGTTTCTCTGCCTAAGATGGAAGGTGAT  
CTAAAGGGTCCTGAAGTTGACATCAAGGGCCCCAAAGTGGACATTAATGCTCCAGATGTGGATGTTCAAGGCCCA  
GACTGGCACCTGAAGATGCCCAAGGTGAAAATGCCCAAGTTCAGCATGCCTGGCTTCAAAGGAGAGGGCCCAGAT  
GTGGATGTGAACCTGCCCAAGGCTGACCTTGATGTCTCAGGACCCAAGGTGGACATTGATGTTTCTGATGTGGAT  
ATCCGAAGGTCCAGAAGGGAACTGAAAGGTCCCAAATTCAGATGCCTGAGATGAGCATCCAAGCCCCAAGAT  
CTCCATGCCTGATATTGACTTAAACCTGAAAGGACCCAAAGTGAAGGGCGATGTGGATGTTACCTTCTCTAAAGT  
GGAAGGTGACCTCAAGGGCCCAGAAGCTGACATCAAGGGCCCCAAAGTGGACATCAACACCCCTGATGTGGATGT  
TCATGGCCCAGACTGGCACCTGAAGATGCCCAAGGTGAAAATGCCCAAATTCAGCATGCCTGGCTTCAAAGGAGA  
AGGTCCAGATGTGGATGTGAACCTGCCCAAGGCTGACATTGATGTCTCAGGACCCAAGTGGACGTTGATGTTCC  
TGATGTGAATATCGAAGGTCCAGATGCGAAACTAAAGGGCCCCAAGTTCAGATGCCTGAGATGAGCATCAAAGC  
CCCCAAGATCTCCATGCCTGATATTGACTTAAACCTGAAAGGACCCAAAGTGAAGGGCGATGTGGATGTTACCTT  
TCCTAAAGTGGAAGGTGACCTCAAGGGCCCAGAAGCTGACATCAAGGGCCCCAAAGTGGACATCAACACCCCTGA  
TGTGGATGTTTCATGGCCCAGACTGGCACCTGAAGATGCCCAAGGTGAAAATGCCCAAATTCAGCATGCCTGGCTT  
CAAAGGAGAAGGTCCAGATGTGGATGTGAGCCTGCCCAAGGCCGACATCGATGTCTCGGGACCCAAGGTGGACGT

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**FIGURE 776B**

TGATATTCCAGATGTGAATATCGAAGGTCCAGACGCAAACTGAAGGGCCCCAAGTTCAAGATGCCTGAAATAAA  
TATCAAAGCTCCCAAGATCTCCATACCTGATGTTGACCTGGATTTGAAAGGACCCAAAGTAAAAGGAGATTTTGA  
TGTTGTCTGTCCCTAAGGTTGAAGGGACTTTGAAAGGCCAGAAAGTAGATCTTAAAGGTCCACGTCTGGATTTTGA  
AGGCCCTGATGCCAACTCAGTGGCCCATCTTTGAAGATGCCATCGCTGGAGATATCTGCTCCTAAAGTAACTGC  
TCCTGATGTTGATTTGCATCTCAAGGCACCAAAAATTGGATTTTCAGGTCCGAAGTTAGAAGGTGGTGAAGTGGA  
CCTCAAGGGACCCAAAGTTGAAGCTCCAAGCTTAGATGTACACATGGACAGCCCAGATATTAACATCGAAGGGCC  
AGATGTTAAAAATCCCAAATTTAAGAAACCCAAGTTTGGATTTGGGGCAAAAAGCCCCAAAGCTGACATCAAGTC  
ACCTTCACTGGATGTCACTGTTTCTGAGGCAGAGCTGAACCTTGAGACTCCTGAAATTAGTGTGGTGGCAAGGG  
CAAGAAAAGTAAGTTTAAAATGCCATAAATTCATATGAGTGGTCCTAAGATTAAGGCCAAAAAACAGGGATTTG  
ACCTGAATGTTTCTGGGGGTGAAATTGATGCCAGCCTCAAGGCTCCGGATGTAGATGTCAACATCGCAGGGCCGG  
ATGCTGCACTCAAAGTCGACGTGAAATCGCCAAAACCAAGAAAACGATGTTTGGAAAAATGTACTTCCCAGATG  
TAGAGTTTGACATTAAATCACCTAAATTTAAAGCTGAGGCCCCCTCCTCCCTAGCCCCAACTGGAGGGTGAACCTC  
AGGCACCTGATCTGGAACCTTCTTTGCCAGCGATTACGTCGAAGGTCTTGACATCAAGGCGAAGGCTCCCAAGG  
TCAAGATGCCAGATGTGGACATCTCAGTGCCAAAAATAGAGGGTGACCTGAAAGGCCCCAAAGTGCAGGCAAACT  
TGGGTGCACCTGACATCAACATCGAAGGCCTAGATGCTAAAGTCAAAACACCGTCTTCGGCATTCTTGCCCCCTC  
AAGTCTCCATCCCTGATGTGAATGTAACTTGAAAGGACCAAGATAAAGGGTGATGTCCCAGCGTGGGACTGG  
AAGGACCAGATGTAGATCTGCAAGGTCCAGAAGCAAAAATTAAGTTCCCCAAGTTTTCCATGCCCAAGATCGGCA  
TCCCAGGTGTGAAAATGGAGGGTGGGGGAGCCGAGGTCCATGCCCAGCTACCTCTCTTGAAGGAGACTTGAGAG  
GACCAGATGTTAAGCTCGAAGGGCCCGATGTTTCTCTAAAGGGGCCAGGAGTAGACTTGCCTTCAGTGAACCTCT  
CTATGCCAAAAGTCTCTGGGCCTGACCTTGATCTGAACCTGAAAGGACCAAGTTTGAAGGGAGACCTGGATGCAT  
CTGTTCCCAGCATGAAGGTGCATGCTCCAGGGCTCAACCTCAGTGGTGTGCGGTGGCAAAATGCAGGTGGGAGGAG  
ACGGTGTGAAAGTGCCAGGGATCGATGCCACAACAAAGCTTAACGTTGGGGCACCAGATGTGACACTGAGGGGAC  
CAAGCCTGCAGGGAGATCTGGCTGTCTCTGGTGACATCAAATGCCCTAAAGTATCCGTAGGAGCTCCTGATCTAA  
GCTTGAGGCATCCGAAGGCAGCATTAAACTTCCCAAAATGAAGCTGCCCAATTTGGCATCTCTACTCCGGGGT  
CCGACTTGACGTCAATGCCAAGGGGCCACAGGTTTCTGGCGAACTGAAGGGGCCAGGTGTGGATGTGAACCTGA  
AAGGGCCTCGGATTTAGCACCAGATGTGGACTTTAACTTGGAAGGACCAAAAGTGAAAGGGAGCCTTGGGGCCA  
CTGGTGAGATCAAAGGCCCACTGTGCGAGGAGGTCTTCCAGGCATTGGTGTTCAGGCCTAGAAGGAAACCTCC  
AGATGCCTGGAATTAAGTCCTCTGGATGTGATGTGAACCTGCCAGGCGTGAATGTGAACTCCCAACTGGGCAGA  
TTTCTGGGCCTGAAATCAAAGGTGGTCTGAAAGGTTTCAAGAGTAGGTTTCCATGGGGCTGCTCCTGATATCAGTG  
TGAAGGGGCCCTGCCTTTAATATGGCATCTCCTGAGTCAGATTTTGGCATCAACTTGAAGGGGCCAAAAATCAAAG  
GAGGTGCGGATGTTTCAGGGGGTGTGAGTGCCCCAGACATCAGCCTTGGTGAAGGGCATTGTAGTGTAAAGGTT  
CCGGGGGTGAGTGGAAGGGACCCCAAGTCTCCTCTGCTCTCAACTTGGACACATCTAAGTTTGTGGGGGCCCTTC  
ATTTCTCAGGACCAAGGTGGAAGGAGGTGTGAAAGGAGGTGAGATTGGACTCCAGGCTCCTGGGCTGAGTGTGT  
CTGGGCCTCAAGGTCACTTGGAAAGTGATCTGGAAGTAACATTCCCTAAAATGAAGATCCCCAAATTTACCT  
TCTCTGGCCGTGAGCTGGTTGGCAGAGAAATGGGGGTGGATGTTCACTTCCCTAAAGCAGAGGCCAGCATCCAAG  
CTGGTGTGAGACGGCGAGTGGGAAGAGTCTGAAGTCAAAGTGAAGAGTCCCAAGATCAAATGCCCAAGTTTA  
ATTTTTCCAAACCTAAAGGGAAAGGTGGTGTCACTGGCTCACCAGAAGCATCAATTTCTGGGTCCAAGGTGACC  
TGAAAGTTCAAAGGCCAGCCTGGGCTCTCTGGAAGGAGAGGCAGAGGCCGAAGCCTCTTCACCGAAAGGCAAT  
TCTCCTTATTTAAAAGTAAGAAGCCACGGCACCGCTCAAATTCATTCAAGTATGAAAGAGAGTTCTCTGGACCTT  
CCACCCCGACGGGGACGCTGGAGTTTGAAGGTGGGGAAGTGTCTCTGGAAGGTGGGAAAGTTAAAGGGAAACAG  
GGAAGCTGAAATTCGGTACCTTTGGTGGATTGGGGTCAAAGAGCAAAGGTGATTATGAGGTGACTGGGAGCGATG  
ATGAGACAGGCAAGTTACAGGGGAGTGGGGTGTCCCTGGCCTCTAAGAAGTCCCGACTGTCCTCCTCTCTTAGCA  
ATGACAGTGGGAATAAGGTTGGCATCCAGCTTCCCGAGGTGGAGCTGTCAGTTTCCACAAAGAAAGAGTAGCAGG  
CCTTTGTATGTGTACATATATATATATAACAAAACATCAGCCTTGGGTGGTGTGTTCTATATAAACTCCA  
AAGGGAAACACACCGACTGCCTCAGCAATCATGCAAAGACCTTGCCCTGGCCCGGTGGCAAGCGCTGAAAAACCGA  
CCGCCTGTAGGCTCCTGGAATAACAGATAGGTAAAGAGTTTCAAGTTCGTCCAGCCCATGTGCAAAGTCAACA  
GTATTTGCCTTAAGATTTTATATATATATATTTTTTGCATTGACTGCTGAGAGCTCCTGTTTACTAAGCAAGCT  
TTTGTGTTTATTATCCTCATTTTTTACTGAACATTGTTAGTTTTTGGGGTAATGGAAACCCACTTTTTTCATTGTAAT

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**FIGURE 776C**

GACTTTGGGGGCTTTTGT TAGTAAGGGTGGGTGGGGTGATGGGTTCAGACGGAGGTCAGGTCTTCCTCTTTCCT  
GAGACTGGATCTGTTCAAACAGCAAACGCCCACAGATGGCCCAGAGGTGGTGGTAGTCAGGGTGTGTGGGTGTTT  
TTAGGGTTCTTTAGTGTTGTTTCTTTCACCCAGGGGTGGTGGTCCCAGCCAGTTTGGTGCTGACGGTGAGAGGAA  
ATTAGAATCTGTTTGCAAATTGTCCAACCCACCCCCTCAACATGAGGGGCTTCCATTTTCTGTGTTTTGTAAGGG  
AACTGTTTCCTTCATGCCGCCATGTTCTGATATTAGTTCTGATTTCTTTTTTAACAAATGTTATCATGATTAAGA  
AAATTTCCAGCACTTTAATGGCCAATTAACCTGAGAATGTAAGAAAATTGATGCTGTACAAGGCAAATAAGCTGT  
TTATTAACCTCCGAAAAAAATCTATGTCGGGTGCGGAGAAAGAGGTAATGAAATGGCA



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**FIGURE 777**

MPKVKMPKFSMPGFKGEGPDGDVVKLPKADIDVSGPKVDIEGPDVNIIEGPEGKLGPKFKMPEMNIKAPKISMPDI  
DLNLKGPKVKGDVDVSLPKVEGDLKGPEVDIKGPKVDIDAPDVDVHGPDWHLKMPKIKMPKISMPGFKGEGPDVD  
VNLPAKADIDVSGPKVDVECPDVNIIEGPEGKWKSPKFKMPEMHFKTPKISMPDIDLNLTGPKIKGDVDVTGPKVEG  
DLKGPEVDLKGPKVDIDVPDVNVQGPDWHLKMPKMKMPKFSMPGFKAEGPEVDVNLPAKADVDVSGPKVDVEGPDV  
NIEGPEGKLGPKFKMPEMNIKAPKIPMPDFDLHLKGPKVKGDVDISLPKVEGDLKGPEVDIRGPKVDIDVPDVG  
VQGPDWHLKMPKVKMPKFSMPGFKGEGPDVDVNLPAKADLDVSGPKVDIDVPDVNIIEGPEGKLGPKFKMPEMNIK  
APKISMPDIDLNLKGPKVKGDMVSLPKVEGDMKVPDVIDKGPKVDINAPDVDVQGPDWHLKMPKIKMPKISMPG  
FKGEGPEVDVNLPAKADLDVSGPKVDVDPDVNIIEGPDALKGPKFKMPEMNIKAPKISMPDFDLHLKGPKVKGDV  
DVSLPKMEGDLKGPEVDIKGPKVDINAPDVDVQGPDWHLKMPKVKMPKFSMPGFKGEGPDVDVNLPAKADLDVSGP  
KVDIDVPDVIDRRSRRETERSQIQDAEMSIQAPKISMPDIDLNLKGPKVKGDVDVTLPKVEGDLKGPEADIKGPK  
VDINTPDVDVHGPDWHLKMPKVKMPKFSMPGFKGEGPDVDVNLPAKADIDVSGPKVDVDPDVNIIEGPDALKGPK  
FKMPEMSIKAPKISMPDIDLNLKGPKVKGDVDVTLPKVEGDLKGPEADIKGPKVDINTPDVDVHGPDWHLKMPKV  
KMPKFSMPGFKGEGPDVDVSLPAKADIDVSGPKVDVIDPVDNIIEGPDALKGPKFKMPEINIKAPKISIPDVLDL  
KGPKVKGDFDVSPKVEGTLKGPEVDLKGPRLDIEGPDALSGPSLKMPSEISAPKVTAPDVLHLKAPKIGFS  
GPKLEGGEVDLKGPKVEAPSLDVHMDSPDINIEGPDVKIPKFKPKFGFGAKSPKADIKSPSLDVTVPEAELNLE  
TPEISVGGKGKSKFKMPKIHMSGPKIKAKKTGIDLVNPGGEIDASLKAPDVDVNIAGPDAALKVDVKSPKTKKT  
MFGKMYFPDVEFDIKSPKFKAEAPLSPKLEGEAQAPDLELSLPAIHVEGLDIKAKAPVKMPDVIDSVPKIEGD  
LKGPKVQANLGAPDINIEGLDAKVKTPSFGISAPQVSIQPDVNVNLKGPKIKGDVPSVGLEGPDVDLQGPPEAKIKF  
PKFSMPKIGIPGVKMEGGGAEVHAQLPSLEGDLRGPDKLEGPDVSLKGPVLDLPSVNLSPKVSQPDLDLNLKG  
PSLKGDLASVPSMKVHAPGLNLSGVGGKMVGVDGKVPIDATTKLVNVPDVTLRGPSLQGD LAVSGDIKCP  
KVSQAPDLSLEASEGSIKLPKMKLPQFGISTPGSDLHVNAKGPQVSGELKGPVVDVNLKGPRI SAPNVDFNLEG  
PKVKGSLGATGEIKGPTVGGGLPGIGVQGLEGNLQMPGIKSSGCDVNLPGVNVKLPTGQISGPEIKGGLKGSEVG  
FHGAAPDISVKGPAFNMA SPESDFGINLKGPKIKGGADVSGGVSAPDISLGEGLSVKSGSGGEWKGPQVSSALNL  
DTSKFAGGLHFSGPKVEGGVKGQIGLQAPGLSVSGPQGHLESGSGKVTFFPKMKIPKFTFSGRELVGREMGVDVH  
FPKAEASIQAGAGDGEWESEV\KLKSKIKMPKFNFSKPKGKGGVTGSPEASISGSKGDLKSSKASLSLEGEAE  
AEASSPKGKFSLFKSKKPRHRSNSFSDEREFSGPSTPTGTLEFEGGEVSLEGGKVKGKHGKLFKGTFGGLGSKSK  
GHYEVTSDDDETGLQGGSVSLASKKSRLSSSSSSNDSGNKVGIQLPEVELSVSTKKE

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**FIGURE 778**

GTGCGGTTGGGAACGCGGAGCGGACGGATTTCGATTCAACGGGGTTCCGGACCGCGCTGCGCT**ATG**GAGCAGGTCA  
ATGAGCTGAAGGAGAAAGGCAACAAGGCCCTGAGCGTGGGTAACATCGATGATGCCTTACAGTGCTACTCCGAAG  
CTATTAAGCTGGATCCCCACAACCACGTGCTGTACAGCAACCGTTCTGCTGCCTATGCCAAGAAAGGAGACTACC  
AGAAGGCTTATGAGGATGGCTGCAAGACTGTGACCTAAAGCCTGACTGGGGCAAGGGCTATTACGAAAAGCAG  
CAGCTCTAGAGTTCTTAAACCGCTTTGAAGAAGCCAAGCGAACCTATGAGGAGGGCTTAAACACGAGGCCAATA  
ACCCTCAACTGAAAGAGGGTTTACAGAATATGGAGGCCAGGTTGGCAGAGAGAAAATTCATGAACCCTTTCAACA  
TGCCTAATCTGTATCAGAAGTTGGAGAGTGATCCCAGGACAAGGACACTACTCAGTGATCCTACCTACCGGGAGC  
TGATAGAGCAGCTACGAAACAAGCCTTCTGACCTGGGCACGAACTACAAGATCCCCGGATCATGACCACTCTCA  
GCGTCTCTCTGGGGTTCGATCTGGGCAGTATGGATGAGGAGGAAGAGATTGCAACACCTCCACCACCACCCCTC  
CCAAAAAGGAGACCAAGCCAGAGCCAATGGAAGAAGATCTTCCAGAGAATAAGAAGCAGGCACTGAAAGAAAAAG  
AGCTGGGGAACGATGCCTACAAGAAGAAAGACTTTGACACAGCCTTGAAGCATTACGACAAAGCCAAGGAGCTGG  
ACCCCACTAACATGACTTACATTACCAATCAAGCAGCGGTATACTTTGAAAAGGGCGACTACAATAAGTGCCGGG  
AGCTTTGTGAGAAGGCCATTGAAGTGGGGAGAGAAAACCGAGAAGACTATCGACAGATTGCCAAAGCATATGCTC  
GAATTGGCAACTCCTACTTCAAAGAAGAAAAGTACAAGGATGCCATCCATTTCTATAACAAGTCTCTGGCAGAGC  
ACCGAACCCCGAGATGTGCTCAAGAAATGCCAGCAGGCAGAGAAAATCCTGAAGGAGCAAGAGCGGCTGGCCTACA  
TAAACCCCGACCTGGCTTTGGAGGAGAAGAACAAGGCAACGAGTGTTTTTCAGAAAGGGGACTATCCCCAGGCCA  
TGAAGCATTATACAGAAGCCATCAAAGGAACCCGAAAGATGCCAAATTATACAGCAATCGAGCTGCCTGCTACA  
CCAAACTCCTGGAGTTCCAGCTGGCACTCAAGGACTGTGAGGAATGTATCCAGCTGGAGCCGACCTTCATCAAGG  
GTTATACACGGAAAGCCGCTGCGCTGGAAGCGATGAAGGACTACACCAAAGCCATGGATGTGTACCAGAAGGCGC  
TAGACCTGGACTCCAGCTGTAAGGAGGCGGCAGACGGCTACCAGCGCTGTATGATGGCGCAGTACAACCGGCACG  
ACAGCCCCGAAGATGTGAAGCGACGAGCCATGGCCGACCCTGAGGTGCAGCAGATCATGAGTGACCCAGCCATGC  
GCCATTATCCTGGAACAGATGCAGAAGGACCCCCAGGCACTCAGCGAACACTTAAAGAATCCTGTAATAGCACAGA  
AGATCCAGAAGCTGATGGATGTGGGTCTGATTGCAATTCGGT**TGAT**GACTTGTTTCATCCCCCTTCCCTTCGCCCT  
CATGTGGAAGAGGAGCTGGGACCGCGCGAGCAGCACGGAGCGGAAGGGAGAGCAGGGGAGAGAAGGCCTCATC  
TCTCTATATTTATACATAACCCCGGGGAAGACACAGAGACTCGTACCTGCGCTGTTTGTGCCGCGCTGCCTCTG  
GGCCCTCCCAGCACACGCATGGTCTCTTACCGCTGCCCTCGAGTTCCATGTCTCTTTCCCTGCCCTAGTTGC  
TGTCTCGGCTGCTCTCCCATAGTTGGTTTTTTTTTTTATTTGGGGCAGTGGGCATGTTATGGGGAGGGGAGGGGGT  
TCTTCCAGCCTCAGGTCCCAGCTGTCTCACGTTGTTTATTCTGCGTCCCCTTCTCCAATAAAACAAGCCAGTTGG  
GCGTGTTATAAC

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**FIGURE 779**

MEQVNELKEKGNKALSVGNIDDALQCYSEAIKLDPHNHVLVSNRSAAYAKKGDYQKAYEDGCKTVDLKPDWGKGY  
SRKAAALEFLNRFEEAKRTYEEGLKHEANNPQLKEGLQNMPEARLAERKFMNPFNMPNLYQKLESDPRTRTLSDP  
TYRELIEQLRNKPSDLGTLQDPRIMTTLSVLLGVDLGSMDEEEEIATPPPPPPPKKETKPEPMEEDLPENKKQA  
LKEKELGNDAYKKKDFDTALKHYDKAKELDPTNMTYITNQAAVYFEKGDYNKCRELCEKAIEVGRENREDYRQIA  
KAYARIGNSYFKEEKYKDAIHFYNKSLAEHRTPDVLKKCQQAEEKILKEQERLAYINPDLALEEKNGNECFQKGD  
YPQAMKHYTEAIKRNPDAKLYSNRAACYTKLLEFQLALKDCEECIQLEPTFIKGYTRKAAALEAMKDYTKAMDV  
YQKALDLDSSCKEAADGYQRCMMAQYNRHDSPEDEVKRRAMADFEVQQIMSDPAMRLILEQMOKDPQALSEHLKNP  
VIAQKIQKLMDVGLIAIR

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**FIGURE 780**

GCTAGATGAGACTGAAGAGTCTTCTTTACTTTAAGTGATTGATTTTCATTTAGGACTCCTTGTGGGTTTTTTGTAA  
AAAGCCATTAAACCATTTCCTGCCCCTGATCTCCATATCAGCCTTTATATATATTTCATTGTCTCTCAACAGCCCC  
AATTTTTTTTATTAAACAGATGGGGAACAGAGGCTCTGAGCGGTTAAACAAAGCTTTCTTTCTGTGGAAACCTAGTA  
AATGGCAAAGCTGGAATATGAACTGCAAAGCCTATGTGCTTAACTAGTAAACCCAACCACCTGGGACCACCATA  
TCTTACTGTGCAGTTTGTGTGTGTGAGGGGATCAGAACATCTAAGAACTGCCATTACGTTGAGGACAACATA  
GGGATTTATATATTAATACATGCTGGTGTAAATACAGGCCGGTGTCTGTAAAAATTAGTATATTAGGACAGTTTG  
CCATACCATAGGGGAAAAGCCACTTTATTCTAATTCACCCAAAGGTACTGTAAGTGCTGATGGCTCTGGGTCTGT  
CTTTCTGTCAAGTTGCCAAGTCACATAAGTAATGAATCCGCAGCTGGAGGAGCTGCTGCTGGAGGACAGGCATGT  
TTTCAGACAGGAGCATGGCCTTTAGCTCATGACCATAAGAGGGCGCTACAGCAAAGAGTACTAAATACCAATCAA  
AGTGAGCTCAGAGTACAAGAGGGTAACTTGCTTTTCTCCAAAGTAAAAGAGAAGACATAGTCTCAAACACTTGC  
CCTGTGCCCTGTCCCTGAACTCTCCATGGAGGAATTTTTTCTGTTGTTTAGTGTTAGCAGAATTTAGGAAGGGCT  
TGTAATAAGGAAGGTTGAGGGTTGGGTGGGGTCACACTGTGTTGTGTGAGGATCATTTTCATGTTAATGAAATGT  
TTAGTTCTTTAAGGGGAATGTGGTAGAGCCTTTATCTCCCCCTGCCCTTTTTTTTAACTGCACAGGTCTCGGA  
CAATGTTTATTGTGTCTATAAATAACCAAGAAATGGGTTTCTACAAAAGATGCAAAGACTGTGCTTCTGGAATTCC  
CTACCACAGCGAGGTCCCTGTGAGTTTGAAAGAAGCTGTCTGCGAAGTGGCCCTTGATTACAAAAGAAGAAACA  
CGTATTCAAGCTAAGACTAAATGATGGCAATGAGTACCTCTTCCAAGCCAAAGACGATGAGGAAATGAACACATG  
GATCAAGGAAAAATTACTGCAGTTGACGGAAGAGGAAAGAAATGATCGGTCTTACAGCCGCTCGTCAGACTC  
CAGCAACCTGGGATGAGAGGTTCTCTGCCCTGGAAAGGCTGACTACATTGGAGTTACTGGAAGTGCGCAGACAGC  
AAGAGGAAGAGGAGAGGAAGAGGCGGCCCTTCTCCCGAGCCGAGCACGAAGGTTTCAGAGGAAGCCGAGTCCC  
AGCAGCAGTGGGATACTTCAAAGGAGAACAAGTTTCCCAAACGGTTTGCCAGCTGAACAGGGATCTCCACGGA  
**TGGCAGAAACGGTGGACACAAGCGAAATGGTCAACGGCGCTACAGAACAAGGACGAGCTCTAAAGAGTCCAGCC**  
CCATCCCCCTCCCCGACCTCTGATCGTAAAGCCAAGACTGCCCTCCCAGCCAGAGTGCCGCCACCTTACCAGCCA  
GAACCCAGGAGACACCTTCGGCCAGATGGAAGGCTTCTCAATCGGAACACGAGTGGGAGGCCCACAATAAGA  
AAGCCTCAAGCAGGTCTGGCACAATGTTTATTGTGTCTATAAATAACCAAGAAATGGGTTTCTACAAAGATGCAA  
AGACTGCTGCTTCTGGAATTCCCTACCACAGCGAGGTCCCTGTGAGTTTGAAAGAAGCTGTCTGCGAAGTGGCCC  
TTGATTACAAAAGAAGAAACACGTATTCAAGCTAAGACTAAATGATGGCATGAGTACCTCTTCCAAGCCAAAGA  
CAAAGAGAACCGGTTTCAGCCTTTTTTGGCCAAAAAGAA**TGAA**CTCCTTTCTTTCACCTCTGCCCTTCTCTTACC  
CTTTCAGTGAAATTCCCGCATGCAAGCTCAGAACCCACACAGTACTCTCTGTGCCCAAAGTTCCCAAAGTGGTT  
GAANNNNNNNNNNNNNNNNNNNNNNNAGAGCATTTCGGGGGGGGTGGGGGAAACACACCTAAACACTTTATCTCCCA  
GTTACCAAAGTTTGAGGTGCAGAGGGAAGGCCAGATTTTTTTTTTAAATGAAATTATATAGATTAGATCTCAGTAT  
TTAAACTGTTCCCTCAATTTTGTGAGGCTGTGTTGGAAATAACCCGCCTCTAGTGCTGTTGGTATGCAAGGCAGCG  
GTGCTTAATCAATATTTCTGTGCTCACCAGAGGCCAAATGTACCAATATCCTGACACCATTCTCTCTCCATTTA  
CTTCTTGGTGGTTACCCTGACTCTTGACTCTTAGAAGTGCCCAGATGGGGCTAACCTTTATTAAACAGATCGCA  
TATTATGATCTTGTGTCAGCCACAGTGCAGCTCCACATTAACCTCTACAGACCAAACCATTTGTATCTGGCATCAC  
TTACTAACACACGACATGCGGCTTTTCTGCATCAACTGCTATGACGGTTAAGAATGTCAGTATACAAGAAGGAAT  
AGAAAAGTGAAGTGTGTTTAAATAATCTGTAAATTTCAATTTTTTTTTTTTGTGCTGAAATACATTATATTGTACGT  
TTGAGATAATTCTAGTACAAAGTATAATAAACTAGATGTATAATAAACCTTTAAATCATTGGTAAGTGTACAA  
GTGGTGGAAGTGAAGCATTTACTGGACAAAGTAATGTTACTCTAATGGTTACTTGCTCGTGCGTTGCCACACTG  
TGTATAATTTGCTTCATTTCTTGCTATTTGATACATAGTGTGCATTTCTCTGTCACTGTAAGTATTGTAATGA  
CAAAATTTTCATCTTACTGCACAATCAAAATGACATTGATAGGAATGAACTCCAGAGGCTGGGCCTGAACAGGGAG  
GTGGTCGCTCAGGCCTGGTGTCTAGTGTACGACCTGTACCTCTCAACTTTTGCCCTATCTGTTAAATATATGCT  
ATGTCATTAAATGCTTTTAAATCTAGCACGGTGACTAGTTGTTGTTCTTCTCTGCTGCGTGTGCATGCCAGTA  
GGGAAAGTGCAAAGGGAGAAATGACAAACAAGAAACATTTTACAACCAGTCTGGGCTCACTTTTGCATTTTTTAT  
GCATGTCTGGTGCACAAGCTTTGAAACTACAGCAAACAGTAATAAATGTGACTGTTTTGTAGT

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**FIGURE 781**

MAETVDTSEMVNGATEQRTSSKESSPIPSPTSDRKAKTALPAQSAATLPARTQETPSAQMEGFLNRKHEWEAHNK  
KASSRSWHNVYCVINNQEMGFYKDAKTAASGIPYHSEVPVSLKEAVCEVALDYKKKKHVFKLRLNDGMSTSSKPK  
TKRTGSAFLAKKK

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**FIGURE 782A**

CGCGTGTCTACGCGGACGCACCGGCTAAGCTGCTTCTGCCGCCGCCGCCCTGGGACCTTGCGGTGAGGCTGC  
GCGGGGCGGAGGCCGCTCCGAGCGCCAGGTTTATTAGTCACCATGAAGCTGCTGCTGCTGCACCCGGCCTTCC  
AGAGCTGCCTCCTGCTGACCTGCTTGGCTTATGGAGAACCACCCCTGAGGCTCACGCTTCATCCCTGGGTGCAC  
CAGCTATCAGCGCTGCCTCCTTCTGTCAGGATCTAATACATCGGTATGGCGAGGGTGACAGCCTCACTCTGCAGC  
AGCTGAAGGCCCTGCTCAACCACCTGGATGTGGGAGTGGGCCGGGGTAATGTCACCCAGCACGTGCAAGGACACA  
GGAACCTCTCCACGTGCTTTAGTTCTGGAGACCTCTTCACTGCCCACAATTCAGCGAGCAGTCGCGGATTGGGA  
GCAGCGAGCTCCAGGAGTTCTGCCCCACCATCCTCCAGCAGCTGGATTCCCGGGCCTGCACCTCGGAGAACCAGG  
AAAACGAGGAGAATGAGCAGACGGAGGAGGGGCGGCCAAGCGCTGTTGAAGTGTGGGGATACGGTCTCCTCTGTG  
TGACCGTCATCTCCCTCTGCTCCCTCCTGGGGGCCAGCGTGGTGCCCTTCATGAAGAAGACCTTTTACAAGAGGC  
TGCTGCTCTACTTCATAGCTCTGGCGATTGGAACCTCTACTCCAACGCCCTCTTCCAGCTCATCCCGGAGGCAT  
TTGGTTTCAACCTCTGGAAGATTATTATGTCTCCAAGTCTGCAGTGGTGTTTGGGGGCTTTTATCTTTTCTTTT  
TCACAGAGAAGATCTTGAAGATTCTTCTTAAGCAGAAAAATGAGCATCATCATGGACACAGCCATTATGCCTCTG  
AGTCGCTTCCCTCCAAGAAGGACCAGGAGGAGGGGGTGATGGAGAAGCTGCAGAACGGGGACCTGGACCACATGA  
TTCTCAGCACTGCAGCAGTGAGCTGGACGGCAAGGCGCCCATGGTGGACGAGAAGGTCATTGTGGGCTCGCTCT  
CTGTGCAGGACCTGCAGGCTTCCAGAGTGCTTGCTACTGGCTGAAAGGTGTCCGCTACTCTGATATCGGCACTC  
TGGCCTGGATGATCACTCTGAGCGACGGCCTCCACAATTCATCGATGGCCTGGCCATCGGTGCTTCCTTCACTG  
TGTCAGTTTTTCAAGGCATCAGCACCTCGGTGGCCATCCTCTGTGAGGAGTCCACATGAGCTAGGAGACTTTG  
TCATCCTGCTCAACGCTGGGATGAGCATCCAACAAGCTCTCTTCTCAACTTCCTTTCTGCCTGCTGCTGCTACC  
TGGGTCTGGCCTTTGGCATCCTGGCCGGCAGCCACTTCTCTGCCAACTGGATTTTTTGCCTAGCTGGAGGAATGT  
TCTTGATATTTCTCTGGCTGATATGTTCCCTGAGATGAATGAGGTCTGTCAAGAGGATGAAAGGAAGGGCAGCA  
TCTTGATTCCATTTATCATCCAGAACCTGGGCCTCCTGACTGGATTACCATCATGGTGGTCTCACCATGTATT  
CAGGACAGATCCAGATTGGGTAGGGCTCTGCCAAGAGCCTGTGGGACTGGAAGTCGGGGCCTGGGCTGCCCGATC  
GCCAGCCCGAGGACTTACCATCCACAATGCACCACGGAAGAGGCCGTTCTATGAAAACTGACACAGACTGTATT  
CCTGCATTCAAAATGTCAGCCGTTTGTAATAATGCTGTATCCTAGGAATAAGCTGCCCTGGTAACCACTCTCTAGCT  
AGTGCCCTCTTGCCCTCTCCTCACCTCCTTTTTCTCTCAGTGACTCTGGAACCTGAATGCAGCTTACAAGACAAGCC  
TGACTTTTTTCTCTGATTACCTTGGCCTCCTCTTGGAACCACTGCTGAAAGGTTTTGAATCCTTTACCCAACAAT  
GCAAAAAATAGAGCCAATGGTTATAACTTGGCTAGAAATATCAAGAGTTGAATCCATAGTGTGGGGCCCATGACTC  
TAGCTGGGCACCTTGACCTCCAGCTGGCCAATAGAAGAGACAGGAGACAGGAAGCCTTCCATTTTTTTCAAAGT  
CTGTTTAATTGCCTATTACTTCTCTCAAAGAGAACCTGAAGTCAGAACACATGAGCAGGGTGAGAGGTGAGGCAA  
GGTTCATCCTGAATGGGAGAGGAAGTCGAACCACTGCTGTGTGCTTGTGTCAGGATGCTCACTTGTTCTACTGAG  
ATGCTGGATATTGATTTTGTAACAGCACCTGGTGTTCACGGCTGTCCGAGTGAGCTAACGTGGCGGTGTGGCTG  
CCTGGACCTCCTCTTTTCAAGTTAACGCTGACAGAATGGAGGCTCAGGCTGTCTGCAAGAAAACAGTTGGTTTTGGC  
TGTGATTTTGACCTCCTCTTCCCCACTGCCATCTTCTAAGAGACTTTGTAGCTGCCTCCTAGAAGCACATTCTGA  
GCACATTTGAGACCTCTGTGTTAGAGGGGAGACTGCACAACTATCCTCCCCAGGTTGAGACGCTGCAGAGTG  
GCAAGCTGACTTGTAGAAATGGGGTGCCATTTATGCTCTACTTAGACAAGGGTAATCAGAAATGGAATCAGTGCA  
GGCAAAATTTAGGATTTGCCGCTTCATAAATCAAAGCATGACTAATAGGGGGTCTCTGAAATGTAAGGGCACAA  
ACTTCACTTAGGGCATCGCAGATGTTTGCAGAATGGTTGGCCTAATGATTATGCTACAGATGGGTTTTAAATGAC  
CCGTCTAGGTTACTGCTTCCCTTGCAAAAAAGTCGAATCCTGCATTGAATTGAATATGAATTTCTCTAACTCTCT  
CCAGAAAAATGGATGGAGATAACTTGTCTTTAAACTGTAGGCCAGCCTTAGCCACTGTGGAGCCCTTGCCCTCCGA  
GCTCTGGCTTCAAGGGGAGCTCTTCTCCAGGTTCACTAGGTGAATTGATTTATTATTATCATATTGATAATGTGA  
GATTCTTTAGCCACTTTGGGGAGCCTGTCTCTCCAGAAGCCTTTCTTAGTGGTGCCACAGTTGGAGCCCAGGGG  
CCATGTTTGCAAACTGATTCATGTGCATGGCTGACAGGAGTACTGGTTCACTACCAATGCCTGAGCTTTTCTCTT  
ACATAGAAAACTGTCCACTCTCAGTAATCACAAGCAGCATCCGTTTTGTTTTCTCTTCTTGGGAGACATCTGTC  
AAACCAGGAATATTCTTGAAAAGAACGTGAGCAGGAAAACTGCTGGTGATACTTTTTTTAAGTTTTGTTTTTAT  
CTTGCCCTGTTGGCTTCAATACATTTGAGAATACGCTGAAGAGGGGAAAAATTCAGTGATGGAGATTCTAGATTAAA  
TATCAGGACTGATTTCTGGTGGGATTATGGTCCAGTTTTTACCAAAGAACCAATTCCTTGAATGTTGGAATCTAA  
CTTTTTATATTGTCATTATTATTGTTGTTTTTAAACGGTTCTTTGTCTTTTCTGTTTTATTTTCTCAAGCTGCT  
TTCAGGAGCTAGCAGAAAATAACTCAAAGTTGAAGACTCTGGAAGATTTTGCTTTAACCTAACTCGCATTGATGT

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**FIGURE 782B**

ATTAAATTTATAATTTTAGCATTCCCAATAGATCCTATCATTCCCTTAAACATAATACCCTTTGTCTTGGAGTAGA  
ATACTAAGTTAGAGTTAGTGGATTCTAGTTTAGGAGAGGAGCTCAAAACTATAATCTTTAACAAATTGAAAAAT  
GAAATAGGGTGTTTTCCCTTTTTGTGCACACCTATATTACCTTAAGAAATTTCCCTTCCATAGACAGCTGCCTCAA  
AGGGAAATCCTCTTTAAACCGTAGTTGGCGCAGAGGTCAGTCCTAGTCGGAGCTTAGGAGGGGCGGAGACGCTCA  
CATCGTCTGACTTGAGTCGCCACTGATTGTGGCAACAGCTTTGCCCTCATGAGTCAAAAATTGGCAATTTCTTTTG  
ATTTTTAGTTGTTGAATTTGCTGTTTCAAGCATTGTACATATTAGAAGTCTAAGGAGTAGCAAGTCAGTGGGAG  
GACTTTTTCACCCCTGGCATTAGCAGCTTCGACCTCATTTTCCAGATGCACCAGCTCCTATTAATAAGTTAGCAA  
GGAAAGTGTATGTCACGTGCAGGAACAGTGAGGCAGGGACAGGGGTTCTGCTCCTTCTCACTTCACCACCGGCAC  
ACAGCTTGCCCCCTGCTTTTGCCCCCAAAGGTATTTGTGTCTAGTGTCAAATTGGAGCTATTCTTCACTGGTCCT  
TAACCTTGGGTTTTAAAAAGAAGGCTTCTCTGTTTGGGTAGCGTAAGAGCTGAGTATAGTAAGTCCTCTTCCAAA  
GAGATGGCAATATGCTGGGCATCTACTTTAAACAAAGTTGTCTGATTTTGTCAAGAGAGGTTAGGATTTTATTG  
TTCTTATTTCCCTTTACAGTTCTGCAGTTCCATCACAGTATTTTTTAAATAACTCAGGTGTATGAGCAGAAATT  
AGAAAAGAAAATTAACCTTATGTGGACTGTAAATGTTTTATTTGTAAGATTCTATAAATAAAGCTATATTCTGT

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**FIGURE 783**

RVYADAPAKLLLPPPAAWDLAVRLRGAEAAASERQVYSVTMKLLLLHPAFQSCLLLTLLGLWRTTPEAHASSLGAP  
AISAASFLQDLIHYGEGDSLTLQQLKALLNHLDVGVGGRGNVTQHVGHRNLSTCFSSGDLFTAHNFSEQSRIGS  
SELQEFCTILQQLDSRACTSENQENEENEQTEEGRPSAVEVWGYGLLCVTVISLCSLLGASVVPFMKKTIFYKRL  
LLYFIALAIGTLYSNALFQLIPEAFGFNPLEDYVVSXSAVVFGGFYLFFFTEKILKILLKQKNEHHHGHSHYASE  
SLPSKKDQEEGVMEKLQNGDLDMIPQHCSSELDGKAPMVDEKVIIVGSLSVQDLQASQSACYWLKGVRYSDIGTL  
AWMITLSDGLHNFIDGLAIGASFTVSVFQGISTSVAILCEEFPHELGDVILLNAGMSIQQALFFNFLSACCCYL  
GLAFGILAGSHFSANWIFALAGGMFLYISLADMFPENNEVCQEDERKGSILIPFI IQNLGLLTGFTIMVVLTMYS  
GQIQIG



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**FIGURE 784**

GAATTCGGCACGAGCGAGTCGCGACGTCGTCGGCAAGCGGCCGCTTCCACGTAACGCGCGCCGGCGGGGGAGGG  
CGTTGGCGCGGAGCCGACGGGAACGTCCGCGCTGCGGAGCAGGGCAGGGAAGCCGGGAGGCGGGCCCGCCCGAG  
CTTGTCTTGTGCGCGAGGTACTCCGAGCACTATGTCGTCCCCGGCGTCGACCCCGAGCCGCCGCGGCAGCCGGC  
GTGGAAGGGCCACCCCGCCAGACGCCTCGGAGTGAGGATGCCAGGTCATCTCCCTCTCAGAGACGTAGAGGCG  
AGGATTCCACCTCCACGGGGGAGTTGCAGCCGATGCCAACCTCGCCTGGAGTGGACCTGCAGAGCACTGCTGCGC  
AGGACGTGCTGTTTTCCAGCCCTCCCCAAATGCATTCTTCAGCTATCCCTCTTGACTTTGATGTTAGTTCACCAC  
TGACATACGGCACTCCAGCTCTCGGGTAGAGGGAACCCCAAGAAGTGGTGTAGGGGCACACCTGTGAGACAGA  
GGCCTGACCTGGGCTCTGCACAGAAGGGCCTGCAAGTGGATCTGCAGTCTGACGGGGCAGCAGCAGAAGATATAG  
TGGCAAGTGAGCAGTCTCTAGGCCAAAACTTGTGATCTGGGGAACAGATGTAAATGTGGCAGCATGCAAAGAAA  
ACTTTCAGAGATTTCTTCAGCGTTTTATTGACCCTCTGGCTAAAGAAGAAGAAAATGTTGGCATAGATATTACTG  
AACCTCTATACATGCAACGACTTGGGGAGATTAATGTTATTGGTGAGCAATTTTTAAATGTGAAGTGTGAACACA  
TCAAATCATTGACAAAAATTTGTACAGACAACCTCATCTCTTACCCACAGGAAGTTATTCCAACTTTTGACATGG  
CTGTCAATGAAATCTTCTTTGACCGTTACCTGACTCAATCTTAGAACATCAGATTCAAGTAAGACCATTCAACG  
CATTGAAGACTAAGAATATGAGAAACCTGAATCCAGAAGACATTGACCAGCTCATCACCATCAGCGGCATGGTGA  
TCAGGACATCCCAGCTGATTCCCAGATGCAGGAGGCCTTCTTCCAGTGCCAAAGTGTGTGCCACACGACCCGGG  
TGGAGATGGACCGCGGCCGATTGCAGAGCCAGTGTGTGCGGGCGCTGCCACACCACCCACAGCATGGCACTCA  
TCCACAACCGCTCCCTCTTCTGTGACAAGCAGATGATCAAGCTTCAGGAGTCTCCGGAAGACATGCCTGCAGGGC  
AGACACCACACACAGTTATCTGTTTGTCTACAATGATCTCGTTGACAAGGTCCAGCCTGGGGACAGAGTGAATG  
TTACAGGCATCTATCGAGCTGTGCCTATTTCGAGTCAATCCAAGAGTGAGTAATGTGAAGTCTGTCTACAAAACCC  
ACATTGATGTCATTTCATTATCGGAAAACGGATGCAAACGCTCTGCATGGCCTTGATGAAGAAGCAGAACAGAAAC  
TTTTTTCAGAGAAACGTGTGGAATTGCTTAAGGAACCTTCCAGGAAACCAGACATTTATGAGAGGCTTGCTTCAG  
CCTTGGCTCCAAGCATTTATGAACATGAAGATATAAAGAAGGGAATTTTGCTTCAGCTCTTTGGCGGGACAAGGA  
AGGATTTTAGTCACACTGGAAGGGGCAAATTTTCGGCTGAGATCAACATCTTGCTGTGTGGCGACCCTGGTACCA  
GCAAGTCCCAGCTGCTGCAGTACGTGTACAACCTCGTCCCCAGGGGCCAGTACACGTCTGGGAAGGGCTCCAGTG  
CAGTTGGCCTCACTGCGTACGTAATGAAAGACCCTGAGACAAGGCAGCTGGTCCTGCAGACAGGTGCTCTTGTC  
TGAGTGACAACGGCATCTGCTGTATCGATGAGTTCGACAAGATGAATGAAAGTACAAGATCGGTATTGCATGAAG  
TCATGGAACAGCAGACTCTGTCCATTGCAAAGGCTGGGATCATCTGTCAGCTCAATGCGCGCACCTCTGTCTGG  
CAGCAGCAAAATCCCATGAGTCTCAGTGGAATCCTAAAAAACAACCATTGAAAACATCCAGCTGCCTCATACTT  
TATTATCAAGGTTTGATTTGATCTTCTCATGCTGGACCCTCAGGACGAAGCCTATGACAGGCGTCTGGCTCACC  
ACCTGGTTCGCACTGTACTACCAGAGCGAGGAGCAGGCAGAGGAGGAGCTCCTGGACATGGCGGTGCTAAAGGACT  
ACATTGCCTACGCGCACAGCACCATCATGCCGCGGCTAAGTGAGGAAGCCAGCCAGGCTCTCATCGAGGCTTATG  
TAGACATGAGGAAGATTGGCAGTAGCCGGGAATGGTTTCTGCATACCCCTCGACAGCTAGAGTCATTAATCCGCT  
TAGCAGAAGCCCATGCTAAAGTAAGATTGTCTAACAAAGTTGAAGCCATTGATGTGGAAGAGGCCAAACGCCTCC  
ATCGGGAAGCTCTGAAGCAGTCTGCAACTGATCCCCGGACTGGCATCGTGGACATATCTATTCTTACTACGGGGA  
TGAGTGCCACCTCTCGTAAACGGAAAGAAGATTAGCTGAAGCATTGAAAAAGCTTATTTTATCTAAGGGCAAAA  
CACCAGCTCTAAAAATACCAGCAACTTTTTGAAGATATTTCGGGGACAATCTGACATAGCAATTACTAAAGATATGT  
TTGAAGAAGCACTGCGTGCCCTGGCAGATGATGATTTCCTGACAGTGACTGGGAAGACCGTGCGCTTGCTCTGA  
GCCTTGAGCAAGGAAGGCTCCCTGCATGTCTATGCAATTCTGCACGCCACATGGGTGTGGTCATGCAATCATCA  
GTTGGCCGCCATCAGTGTAATAGAGCTTAAAGTCATGGTTTGCTGCATAAAAAATTTTCTAAGTTGGGTTCAA  
TATTTGTAGTGAAATATCTGTTTTTCACTTTTACGTTATAAATAAAAAATACTATGCTGGCCGGGCGCGGTGGC  
TCACACCTGTAATCCCAGCACTTTGGGAGGCCAATGTGGGTGGATCATGAGGTCAGGAGTTCAAGACCAGCCTAG  
CCAAGATGGTGAAACCCCGTCTCTAGTAAAGATAACAAAAAATTAGCTGGGCTTGATGGCATGCGCCTGTAATCC  
CAGCTACTCGGGAGGTTGAGGCAGGAGATCGCTTAAACCCAGGCGGCAGAGGTTGCAGTGAGCCAAGATCGCGCC  
ACTGCACTCCAGCCTCAGCAATAGAGTGAGACTGTCTCAAAAAAAAAA

**FIGURE 785**

IRHERVATSSASGRLPRNARRRGRALARSRRERPRCGAGQGSREAGPARACPCRAGTPSTMSSPASTPSRRGSRR  
GRATPAQTPRSEDARSSPSQRRRGEDSTSTGELQPMPTSPGVDLQSTAAQDVLFSPPQMHSAPLDFDVSSPL  
TYGTPSSRVEGTPRSGVRGTPVRQRPDLGSAQKGLQVDLQSDGAAEDIVASEQSLGQKLVIWGTDVNVAACKEN  
FQRFLOQRFIDPLAKEEENVGIDITEPLYMQRLGEINVIGEQLNVNCEHIKSFDPKNLYRQLISYPQEVIPTFDMA  
VNEIFFDRYPDSILEHQIQVRPFNALKTKNMRNLNPEDIDQLITISGMVIRTSQLIPEMQEAFFQCQVCAHTTRV  
EMDRGRIAEPSCGRCHTTHSMALIHNRSLFSDKQMIKLQESPEDMPAGQTPHTVILFAHNDLVKVPQGDVRNV  
TGIYRAVP IRVNPRVSNVKSVMYKTHIDVIHYRKTDKRLHGLDEEAEQKLFSEKRVELLKELSRKPDIERLASA  
LAPSIYEHEDIKKGILLQLFGGTRKDFSHGTGRGKFRAEINILLCGDPGTSKSQLLYVYNLVPRGQYTSKGSSA  
VGLTAYVMKDPETRQLVLQTGALVLSDNIGCCIDEFDKMNESTRSVLHEVMEQQTSLIAKAGIICQLNARTSVLA  
AANPIESQWNPCKTTIENIQLPHTLLSRFDLIFLMLDPQDEAYDRRLAHLVALYYQSEEQAEELLDMAVLKDY  
IAYAHSTIMPRLSEEASQALIEAYVDMRKIGSSRGMVSAYPQLESIRLAEAHAKVRLSNKVEAIDVEEAKRLH  
REALKQSATDPRTGIVDISILTGMSTSRKRKEELAEALKKLILSKGKTPALKYQQLFEDIRGQSDIAITKDMF  
EEALRALADDDFLTGTGKTVRLL

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**FIGURE 786**

GAATTCGGCACGAGCGAGTCGCGACGTCGTCGGCAAGCGGCCGCTTCCACGTAACGCGCGCCGGCGGGGGAGGG  
CGTTGGCGCGGAGCCGACGGGAACGTCCGCGCTGCGGAGCAGGGCAGGGAAGCCGGGAGGCGGGCCCGGCCGAG  
CTTGTCTTGTGCGCGAGGTACTCCGAGCACTATGTCTGTCGCGCGCTGCGACCCGAGCCGCCGCGGCAGCCGGC  
GTGGAAGGGCCACCCCGCCAGACGCCTCGGAGTGAGGATGCCAGGTCATCTCCCTCTCAGAGACGTAGAGGCG  
AGGATTCCACCTCCACGGGGGAGTTGCAGCCGATGCCAACCTCGCCTGGAGTGGACCTGCAGAGCACTGCTGCGC  
AGGACGTGCTGTTTTCCAGCCCTCCCCAAATGCATTCTTCAGCTATCCCTCTTGACTTTGATGTTAGTTTACCAC  
TGACATACGGCACTCCAGCTCTCGGGTAGAGGGAACCCCAAGAAGTGGTGTAGGGGCACACCTGTGAGACAGA  
GGCCTGACCTGGGCTCTGCACAGAAGGGCCTGCAAGTGGATCTGCAGTCTGACGGGGCAGCAGCAGAAGATATAG  
TGGCAAGTGAGCAGTCTCTAGGCCAAAACTTGTGATCTGGGGAACAGATGTAAATGTGGCAGCATGCAAAGAAA  
ACTTTTCAAGATTTCTTCAGCGTTTTATTGACCTCTGGCTAAAGAAGAAGAAAATGTTGGCATAGATATTACTG  
AACCTCTATACATGCAACGACTTGGGGAGATTAATGTTATTGGTGAGCAATTTTTAAATGTGAAGTGTGAACACA  
TCAAATCATTGACAAAAATTTGTACAGACAACTCATCTCTTACCCACAGGAAGTTATTCCAATTTTGACATGG  
CTGTCAATGAAATCTTCTTTGACCGTTACCCTGACTCAATCTTAGAACATCAGATTCAAGTAAGACCATTCAACG  
CATTGAAGACTAAGAATATGAGAAACCTGAATCCAGAAGACATTGACCAGCTCATCACCATCAGCGGCATGGTGA  
TCAGGACATCCCAGCTGATTCCCGAGATGCAGGAGGCCTTCTTCCAGTGCCAAAGTGTGTGCCACACGACCCGGG  
TGGAGATGGACCGCGGCCGATTGCAGAGCCAGTGTGTGCGGGCGCTGCCACACCACCCACAGCATGGCACTCA  
TCCACAACCGCTCCCTCTTCTCTGACAAGCAGATGATCAAGCTTCAGGAGTCTCCGGAAGACATGCCTGCAGGGC  
AGACACCACACACAGTTATCCTGTTTGCTACAATGATCTCGTTGACAAGGTCCAGCCTGGGGACAGAGTGAATG  
TTACAGGCATCTATCGAGCTGTGCCTATTTCAGTCAATCCAAGAGTGAGTAATGTGAAGTCTGTCTACAAAACCC  
ACATTGATGTCAATTCATTATCGGAAAACGGATGCAAAACGCTCTGCATGGCCTTGATGAAGAAGCAGAACAGAAAC  
TTTTTTTCAAGAAACGTGTGGAATTGCTTAAGGAACCTTCCAGGAAACCAGACATTTATGAGAGGCTTGCTTCAG  
CCTTGGCTCCAAGCATTTATGAACATGAAGATATAAAGAAGGGAATTTTGCTTCAGCTCTTTGGCGGGACAAGGA  
AGGATTTTAGTCACACTGGAAGGGGCAAAATTCGGGCTGAGATCAACATCTTGCTGTGTGGCGACCCTGGTACCA  
GCAAGTCCCAGCTGCTGCAGTACGTGTACAACCTCGTCCCCAGGGGCCAGTACACGTCTGGGAAGGGCTCCAGTG  
CAGTTGGCCTCACTGCGTACGTAATGAAAGACCCTGAGACAAGGCAGCTGGTCTGCGAGACAGGTGCTCTTGTC  
TGAGTGACAACGGCATCTGCTGTATCGATGAGTTGACAAGATGAATGAAAGTACAAGATCGGTATTGCATGAAG  
TCATGGAACAGCAGACTCTGTCCATTGCAAAGGCTGGGATCATCTGTGCTCAATGCGCGCACCTCTGTCTGG  
CAGCAGCAAAATCCCATTTAGTCTCAGTGGAATCCTAAAAAACAACCATTGAAAACATCCAGCTGCCTCATACTT  
TATTATCAAGGTTTGATTGATCTTCTCATGCTGGACCCTCAGGACGAAGCCTATGACAGGCGTCTGGCTCACC  
ACCTGGTTCGCACTGTACTACCAGAGCGAGGAGCAGGCAGAGGAGGAGCTCCTGGACATGGCGGTGCTAAAGGACT  
ACATTGCCTACGCGCACAGCACCATCATGCCGCGGCTAAGTGAGGAAGCCAGCCAGGCTCTCATCGAGGCTTATG  
TAGACATGAGGAAGATTGGCAGTAGCCGGGGAATGGTTTCTGCATACCCTCGACAGCTAGAGTCATTAATCCGCT  
TAGCAGAAGCCCATGCTAAAGTAAGATTGTCTAACAAAGTTGAAGCCATTGATGTGGAAGAGGCCAAACGCCTCC  
ATCGGGAAGCTCTGAAGCAGTCTGCAACTGATCCCCGACTGGCATCGTGGACATATCTATTCTTACTACGGGGA  
TGAGTGCCACCTCTCGTAAACGGAAGAAGAATTAGCTGAAGCATTGAAAAAGCTTATTTTATCTAAGGGCAAAA  
CACCAGCTCTAAAAATACCAGCAACTTTTTGAAGATATTGGGGACAATCTGACATAGCAATTACTAAAGATATGT  
TTGAAGAAGCACTGCGTGCCCTGGCAGATGATGATTTCCTGACAGTGACTGGGAAGACCGTGCGCTTGCTCTGAA  
GCCTTGAGCAAGGAAGGCTCCCTGCATGTGATGCAATTCTGCACGCCACATGGGTGTGGTCATGCAATCATCA  
GTTGGCCGCCATCAGTGTAATAGAGCTTAAAGTCATGGTTTGGCTGCATAAAAAATTTTCTAAGTTGGGTTCAA  
TATTTGTAGTGAAAGTATCTGTTTTTCAATTTTTTTCACGTTATAAAATAAAAAATACTATGCTGGCCGGGCGCGGTGGC  
TCACACCTGTAATCCCAGCACTTTGGGAGGCCAATGTGGGTGGATCATGAGGTCAGGAGTTCAAGACCAGCCTAG  
CCAAGATGGTGAAACCCCGTCTCTAGTAAAGATAACAAAAAATTAGCTGGGCTTGATGGCATGCGCCTGTAATCC  
CAGCTACTCGGGAGGTTGAGGCAGGAGATCGCTTAAACCCAGGCGGCAGAGGTTGCAGTGAGCCAAGATCGCGCC  
ACTGCACTCCAGCCTCAGCAATAGAGTGAGACTGTCTCAAAAAAAAAA

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**FIGURE 787A**

GCTAAGAGGAGTCCCTGTGTGGGCAGCTGGAGCCTTCAGATTCTCTTCAGGGGAAGAGTCCACATCCCACCTCAT  
CATGTCCCGAAGAAGCCAGCGCCTCACGCGCTACTCCAGGGTGACGATGACGGCAGCAGCAGCAGCGGAGGGAG  
CTCGGTGGCTGGGAGTCAGAGCACCTGTTTAAAGACAGTCCCTCTCAGGACCTTGAAGAGGAAATCCAGCAACAT  
GAAGCGCTGTCCCAGCGCCACAGCTGGGCCCGTCTCTGATGCACACACCTCCTACTACAGTGAGTCGCTGGT  
CCACGAGTCTGGTTCCACCCAGGAGCTCCCTGGAGGAACTGCATGGTGACGCCAACTGGGGTGAGGACCTGCG  
GGTGCGGAGGAGGAGAGGCACGGGTGGCTCAGAGAGCAGCAGGGCCAGCGGGCTTGTGGGGCGCAAGGCCACCGA  
GGACTTCTGGGCTCTTCTCGGGCTACTCCTCTGAGGACGACTACGTGGGCTACTCGGATGTGGACCAGCAGAG  
TTCCAGCTCGCGGCTCCGAAGCGCGTCTCACGGGCGGGCTCCTTACTCTGGATGGTGGCCACTTCGCCAGGCCG  
GCTCTTCAGACTTCTCTACTGGTGGGCTGGCACCACCTGGTACCGCTGACCACAGCTGCCTCCCTCCTTGACGT  
CTTCGTTTTAACCAGGCGCTTCTCGTCCCTGAAGACGTTCTCTGGTTCCTGCTGCCGCTGCTCTTGCTGACGTG  
CCTGACGTATGGTGCTTGGTATTTCTACCCCTATGGGCTGCAGACATTCCACCCTGCTTTGGTTTTCTGGTGGGC  
AGCGAAGGACAGCAGGAGGCCGGATGAGGGCTGGGAAGCCAGAGACTCATCGCCACATTTCCAGGCTGAGCAGCG  
TGTTATGTCCCGGTACACTCTCTGGAGCGGCGTCTGGAAGCTCTTGCTGCTGAATTTTCTCCAAGTGGCAGAA  
GGAGGCCATGCGGCTGGAACGTCTGGAGCTGCGGCAAGGGGCTCCTGGCCAGGGAGGTGGTGGTGGCCTGAGCCA  
CGAGGACACCCTGGCGCTGCTGGAGGGGCTAGTGAGCCGCCGTGAAGCTGCCCTGAAGGAGGATTTCCGCAGGGA  
AACTGCTGCTCGCATCCAGGAAGAAGTGTCTGCCCTGAGAGCAGAGCATCAGCAAGACTCAGAAGACCTCTTCAA  
GAAGATCGTCCGGGCTCCAGGAGTCCGAGGCTCGCATCCAGCAGCTGAAGTCAGAGTGGAAGCATGACCCA  
GGAGTCTTCCAGGAGAGCTCTGTGAAGGAGCTGAGGCGGCTGGAGGACCAGCTGGCCGGCCTGCAGCAGGAGCT  
GGCGGCTCTGGCACTGAAGCAGAGCTCGGTGGCGGAAGAAGTGGGCCTGCTGCCCCAGCAGATCCAGGCCGTGCG  
GGACGACGTGGAATCTCAGTTCCCGGCTGGATCAGTCAGTTCTTGGCCGAGGTGGAGGGGGCCGCGTGGGGCT  
CCTTCAGAGAGAGGAGATGCAAGCTCAGCTGCGAGAGCTGGAGAGCAAGATCCTCACCCATGTGGCAGAGATGCA  
GGGCAAGTCGGCCAGGGAAGCCGCGGCTCCTGAGCCTGACGCTGCAGAAAGAAGGTGTGATTGGAGTGACAGA  
GGAGCAGGTGCACCACATCGTGAAGCAGGCCCTGCAGCGCTACAGTGAGGACCGCATCGGGCTGGCAGACTACGC  
CCTGGAGTCAGGAGGGGCCAGCGTCATCAGCACCCGATGTTCTGAGACCTACGAGACCAAGACGGCCCTCCTCAG  
CCTCTTCGGCATCCCCCTGTGGTACCACTCCAGTCACCCCGAGTCATCCTCCAGCCAGATGTGCACCCAGGCAA  
CTGCTGGGCCTTCCAGGGGCCACAGGGCTTCGCCGTGGTCCGCTCTCTGCCCCGATCCGCCCCACAGCCGTAC  
CTTAGAGCATGTGCCAAGGCCTTGTACCCAAACAGCACTATCTCCAGTGCCCCCAAGGACTTCGCCATCTTTGG  
GTTTGACGAAGACCTGCAGCAGGAGGGGACACTCCTTGCGCAAGTTCACTTACGATCAGGACGGCGAGCCTATTCA  
GACGTTTCACTTTAGGCCCCCTACGATGGCCACGTACCAGGTGGTGGAGCTGCGGATCCTGACTAACTGGGGCCA  
CCCCGAGTACACCTGCATCTACCGCTTCAGAGTGCATGGGAGCCCCGCCACTAGCCCTGCTTACTGGTGCCTGC  
TGCCAGCCATCTGGGAGTGGGTGAACAGCACCCCGCCGCTTCCCCCACACGCTTGCTCGGCGCTCTGACTTCTAG  
GAGCACAAGAGAGGAGCCTGTGGCCCCATGCAGATGAAAAGGACGGGCAGGGTCTCCTGAGCAGCAGGTGGCTCG  
AGGCGGTTAGCAGGCTCCAGCAGCTCCCTTCTTCTTCCCTCTGTGCCCCGTGGCGTCTGCTTCCCATCCTGGGAG  
TGTGTATATATGTAGCATATCATGGGGACTGGGAAGTTGGGAGAGGTAGGACCTGACTGGTCTTGGCTGGGGTC  
AGGGGCTGGTGCCTGGGAGCTGATGAAGCAGGTGCCAGGGCTGTGGGAGGGGCAAGCTACGGCCTGGGCTAGGTG  
AGCTGCCCTCTGCCCCTGGGCAAGGAAGCGAGGCCCTCTGGGAGGAGGTGCTTAGCTCCAGAGCAGGATGGGACT  
TCCCCAGGCAGGAAGCACTTGATGGAGAGCTGCCAGCTCTCTACAAGGTTAGTGCCCTCCACCTAGGGAAGCC  
TGAACCACAGGGTCCCTGAGGGCCTTCGACAAAAGTGTGTATTTGTCCCGGGAGGGTAGCAGTGGGCCATGGGG  
CTTCTTGTCCTAAAGGGGACTGGCTGCTGTGATCTTCTAAGGGGCCAGGGCCAACCCTGTAGGCTTCCCCTC  
TGCTGGGGACGGTAGTTGCTTTTCTCTCTCTCTGATGCTAGGTGGGGGCCACCCTGCTCCCTGTTTCTGCTAGGG  
CCTGCCAGTGCCCCCTGAGCTTGCTTTCCACATTCTCCAGGGTATGGAGACCTAGACCTGTCTTTGGGGCCATTA  
GCATCTGGGGTTATAGCAAGAAGAGTGGGGAGCATGGAACCTCTGGGCTCTTGTGGGGACGTTTCCAGGTATCGGG  
GTGCGAGGTCTGTCTGCACCGGCCCCCACATCTAACCCAGGCCCTGATGTAGGGGTGCTCCGCTCAGGCTGCCCC  
TTGGGCTCTTGACGCTCTTGTTTCCAGGTAGTCGCCCTTCTGGTTTGTCTCTGTGGGGCAGTTGGTGGGGGCTGGG  
GGAAGAGGCTGGCAGAAGTTACCCTGGATAGGGAAGGGGGAGGAGGGGACTTTTAGAGCCAGCAGGCCCCACTGT  
ATTATGTATATATTTTTCAAGGTCTGTTTTTCTAAGTGAAGGCTAAGGGCTTGATTCTAGCCCCGTTCTGTGG  
GGCACTGGGTGATACTCAGTTTCTTGTTCCTGGCCGTGGAGAGGGGCTGGGGCACTGGTTCCGGCTGTGTCTGG  
TGGTCCGGCTGCAGGGAAGGGCAAGAAGCGGGCAGGCCTTCACTGCAGCACTGAGCCTCAAATCCGCTCTGGA

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**FIGURE 787B**

GCATGAGGCTGGATGCAGTGGTGGTGAGGCCGCCCCGCTCCATCCCGAGGCAGCCAGGCTTTGTTTTGCGCTCTC  
CTGTCACAAATGCTGCACTATTGGTTCTTAAGTTTTTTATCTCCAGATCCTAATTTATGCCTATGCAAAAAATAA  
ATGACGCCCAAGAGCTG

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**FIGURE 788**

AGTTCTCACTGAGACCTGTCACCCCGACTCAACGTGAGACGCACCGCCCGGACTCACC**ATG**CGTGAATGCATCTC  
AGTCCACGTGGGGCAGGCAGGTGTCCAGATGGGCAATGCCTGCTGGGAGCTCTATTGCTTGGAACATGGGATTCA  
GCCTGATGGGCAGATGCCAGTGACAAGACCATTGGTGGAGGGGACGACTCCTTACCACCTTCTTCTGTGAAAC  
TGGTGCTGGAACACGTACCCCGGGCAGTTTTTGTGGATCTGGAGCCTACGGTCATTGATGAGATCCGAAATGG  
CCCATACCGACAGCTCTTCCACCCAGAGCAGCTCATCACTGGGAAAGAGGATGCTGCCAACAACTATGCCCGTGG  
TCACTATACCATTGGCAAGGAGATCATTGACCCAGTGCTGGATCGGATCCGCAAGCTGTCTGACCAGTGCACAGG  
ACTTCAGGGCTTCCTGGTGTTCACAGCTTTGGTGGGGGCACTGGCTCTGGCTTCACCTCACTCCTGATGGAGCG  
GCTCTCTGTTGACTATGGCAAGAAATCCAAGCTGGAATTCTCCATCTACCCAGCCCCCAGGTGTCTACAGCCGT  
GGTCGAGCCCTACAACCTCTATCCTGACCACCCACACCACCTGGAGCACTCAGACTGTGCCTTCATGGTGGACAA  
CGAAGCAATCTATGACATCTGCCGCCGCAACCTAGACATCGAGCGCCCAACCTACACCAACCTCAATCGCCTCAT  
TAGCCAAATTGTCTCCTCCATCACAGCTTCTCTGCGCTTTGACGGGGCCCTCAATGTGGACCTGACAGAGTTCCA  
GACCAACCTGGTGCCCTACCCTCGCATCCACTTCCCCCTGGCCACCTATGCACCAGTCATCTCTGCAGAAAAGGC  
ATACCACGAGCAGCTGTCGGTGGCAGAGATACCAATGCCTGCTTTGAGCCTGCCAACCAGATGGTAAAGTGTGA  
TCCCCGGCACGGCAAGTACATGGCCTGCTGCCTGCTGTACCGTGGAGATGTGGTGCCCAAGGATGTCAACGCTGC  
CATTGCCGCCATCAAGACCAAGCGCAGCATTTCAGTTTGTGGACTGGTGCCCCACAGGCTTCAAGGTTGGTATCAA  
CTACCAGCCTCCCACTGTGGTGCCTGGGGGTGACCTGGCCAAGGTGCAGCGTGCCGTGTGCATGCTGAGCAACAC  
GACCGCCATCGCCGAGGCCTGGGCCCCGCTGGACCACAAGTTCGACCTGATGTATGCCAAGAGGGCGTTTTGTGCA  
CTGGTATGTGGGTGAGGGCATGGAGGAGGGTGAGTTCTCCGAGGCCCGTGAGGATATGGCTGCCCTGGAGAAGGA  
TTATGAGGAGGTGGGCATCGACTCCTATGAGGACGAGGATGAGGGAGAAGAA**TAA**AGCAGCTGCCTGGAGCCTAT  
TCACTATGTTTATTGCAAAATCCTTTCGAAATAAACAGTTTCCTTGACGGTTAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAA

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**FIGURE 789**

MRECISVHVGQAGVQMGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSF T T F F C E T G A G K H V P R A V F V D L E P T V I  
DEIRNGPYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDPVLDRIKLS D Q C T G L Q G F L V F H S F G G G T G S G F T  
SLLMERLSVDYGKSKLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPAN  
QMVKCDPRHGKYMACCLLYRGDVVPKDVNAAIAAIKTKRSIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV  
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEYEVGIDSYEDEDEGEE

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**FIGURE 790**

GACCGAAGCAAGAGCTGGTTCAGGTGGCAGCCACAGCAGCCTCAGGGACCTCAGCAACT**ATG**GCCTCCTGCCCAG  
ACTCTGATAATAGCTGGGTGCTTGCTGGCTCCGAGAGCCTGCCAGTGGAGACACTGGGCCCCGGCATCCAGGATGG  
ACCCAGAATCTGAGAGAGCCCTGCAGGCCCCCTCACAGCCCCCTCCAAGACAGATGGGAAAGAATTAGCTGGGACCA  
TGGATGGAGAAGGGACGCTCTTCCAGACTGAAAGCCCCCTAGTCTGGCAGCATTCTAACAGAGGAGACTGAGGTCA  
AGGGCACCCCTGGAAGGTGATGTTTGTGGTGTGGAGCCTCCTGGCCCAGGAGACACAGTAGTCCAGGGAGACCTGC  
AGGAGACCACCGTGGTGACAGGCCTGGGACCAGACACACAGGACCTGGAAGGCCAGAGCCCTCCACAGAGCCTGC  
CTTCAACCCCCAAAGCAGCTTGGATCAGGGAGGAGGGCCGCTGCTCCAGCAGTGACGATGACACCGACGTGGACA  
TGGAGGGTCTGCGGAGACGGCGGGGCGGGAGGCCGCCCCACCTCAGCCCATGGTGCCCTGGCTGTGGAGAACC  
AGGCTGGGGGTGAGGGTGCAGGCGGGGAGCTGGGCATCTCCCTCAACATGTGCCTCCTTGGGGCCCTGGTTCTGC  
TTGGCCTGGGGGTCTCTCTCTCTCAGGTGGCCTCTCAGAGTCTGAGACTGGGCCCATGGAGGAAGTGGAGCGGC  
AGGTCTCTCCAGACCCCCGAGGTGCTGGAAGCTGTGGGGGACAGGCAGGATGGGCTAAGGGAACAGCTGCAGGCCC  
CAGTGCCCTCCTGACAGTGTCCCCAGCCTGCAAAACATGGGTCTTCTGCTGGACAAGCTGGCCAAGGAGAACCAGG  
ACATCCGGCTGCTGCAGGCCAGCTGCAGGCCCAAAAGGAAGAGCTTCAGAGCCTGATGCACCAGCCCCAAAGGGC  
TAGAGGAGGAGAATGCCAGCTCCGGGGGGCTCTGCAGCAGGGCGAAGCCTTCCAGCGGGCTCTGGAGTCAGAGC  
TGCAGCAGCTGCGGGCCCCGGCTCCAGGGGCTGGAGGCCGACTGTGTCCGGGGCCCAGATGGGGTGTGCCTCAGTG  
GGGGTAGAGGCCACAGGGTGACAAGGCCATCAGGGAGCAAGGCCCCAGGGAGCAGGAGCCAGAAGTCAAGCTTCC  
TGAAGCAGAAGGAACAGCTGGAGGCTGAGGCACAGGCATTAAGGCAAGAGTTAGAGAGGCAGCGACGGCTGCTGG  
GGTCTGTACAGCAGGATCTGGAGAGGAGCTTGCAGGATGCCAGCCGCGGGACCCAGCTCATGCTGGCTTGGCTG  
AGCTGGGCCACAGATTGGCCCAGAACTGCAGGGCCTGGAGAAGTGGGGCCAGGACCCTGGGGTCTCTGCCAATG  
CCTCAAAGGCCTGGCACCAGAAGTCCCCTTCCAGAATTCTAGGGAGTGGAGTGGAAAGGAAAAGTGGTGGGATG  
GGCAGAGAGACCGGAAGGCTGAGCACTGGAAACATAAGAAGGAAGAATCTGGCCGGGAAGGAAGAAGAAGTGGG  
GAGGTCAAGGAGGACAGGGAGCCAGCAGGAAGGTGGAAGGAGGGCAGGCCAAGGGTGGAGGAGTCGGGGAGCAAGA  
AGGAGGGCAAGCGACAGGGCCCCGAAGGAACCCCCAAGGAAAAGTGGTAGCTTCCACTCCTCTGGAGAAAAGCAGA  
AGCAACCTCGGTGGAGGGAAGGGACTAAGGACAGCCATGACCCCCCTGCCATCCTGGGCAGAGCTGTTGAGGCCCA  
AGTACCGGGCACCCCAGGGCTGCTCAGGTGTGGACGAGTGTGCCCCGGCAGGAGGGCCTGACTTTCTTTGGCACAG  
AGCTAGCCCCAGTGCGGCAACAGGAGCTGGCCTCTCTGCTAAGAACATACTTGGCACGGCTGCCCTGGGCTGGGC  
AGCTGACCAAGGAGCTACCCCTCTCACCTGCTTTCTTTGGTGAGGATGGCATCTTCCGTATGACCGCCTCCGCT  
TCCGGGATTTTGTGGATGCCCTGGAGGACAGCTTGGAGGAGGTGGCTGTGCAACAGACAGGTGATGATGATGAAG  
TAGATGACTTTGAGGACTTCATCTTCAGCCACTTCTTTGGAGACAAAGCACTGAAGAAGAGGTCAAGGAAGAAGG  
ACAAGCACTCACAGAGCCCCAAGAGCTGCGGGGCCAGGGAGGGGCACAGCCATAGCCACCACCACCACCACCGGG  
GCT**AG**CACCCCTGCCCCACAGGGAATGGCCTTGGCCTGGCCCAGCCCCAAGATCCCAGCGTTATCTAACTCCTGGAG  
GGTGGACTCTGTCTTGGCTTGTGTTTGGTGTCTCAGATATCTTTCACACAGTAGAGCAAAATCACCAGCCCTGCAC  
TGATGTCACTTTATGTAGAAAAAGGCCTTAGCTGGACCTGCGTTGCCGTCTATGCAAATGCATGCAAATACTCCA  
GGCCCTGGGATGTGGGCTTGTGTTTGTCTACTGTGAAGGGGGAGATGGGAGAGGAGCCTGTTTTGGGGTGGGGTC  
TGGGGAAGGCAATCTGATTCTGAAGCTAAAGAGCTTTCATCCTCTTGAGTGTATGTCCCCATAGTGGGCCCCCTG  
ACCCACATGCTGACCGGTGCCCTTGGGATTTGACTAGAGTTGCTGGCTCGAGGCCCAGCACGAGGACTTACCCTGG  
GGTTTTGTTAGGTTTGGGAAGCAGCTGTCCCTAGGGGGTGAAGTCCCCCCCCCTTTTTTTTTTACCCTGCTTCTC  
CCACGGCTTACCTCCCTATGTGAAGTGTAGACTCAGATCCCAATAAAGTGCTGTTGCAGCTATGATGCTAGGTG  
GTTTCTAAGCACAGGGGACACCCACACCCCTGCCTGAATGGATGGGTCCATCCCAGGCACTGGTACTTGCCCC  
CTTGTCTGTATCCCCCTTTGCCCTTGCCCTTGCCCTTCCAACAAACCCTAGGCCCTTGAGAAGCTGATACTTCTC  
CTTTTGTCTACAGCTGCCTTGGCCCCACCCCTGGGAGATGTAGCAAAATTGAGTGTGGGTTTTGGAGTCTGAGCCT  
CAGGCTCAAAATCCAGGCCAAGTGATCTTGGGCAAGTTAATCTCTGGGAAGTTTGGGTTTTCTATCTCAAAAAAG  
GCGATGGAAGGGCTGGGGAAGTGATTAAATAAAAGCAACGCAAGAAAAA



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**FIGURE 791**

MASCPDSDNSWVLAGESESLPVETLGPASRMDPESEERALQAPHSPSKTDGKELAGTMDGEGTLFQTESPQSGSILT  
EETEVKGTILEGDVCGVEPPGPGDTVVQGDLDQETTIVVTGLGPDQTQDLEGQSPPQSLPSTPKAAWIREEGRCSSDD  
DTDVDMEGLRRRRRGREAGPPQPMVPLAVENQAGGEGAGGELGISLNMCLLGALVLLGLGVLLFSGGLSESETGPM  
EEVERQVLPDPEVLEAVGDRQDGLREQLOAPVPPDSVPSLQNMGLLLDKLAKENQDIRLLQAQLQAQKEELQSLM  
HQPKGLEENALRGALQQGEAFQRALESELQQLRARLQGLEADCVRGPDGVCLSGGRGPQGDKAIREQGPREQE  
PELSFLKQKEQLEAEAQALRQELERQRRLLGSVQDQLERSLQDASRGDPAHAGLAELGHRLAQKLQGLLENWGQDP  
GVSANASKAWHQKSHFQNSREWSGKEKWWDGQDRKAHWHKKKEESGREKKNWGGQEDREPAGRWKEGRPRVE  
ESGSKKEGKRQGPKEPPRKSGSFHSSGEKQKQPRWREGTKDSDPLPSWAELLRPKYRAPQGCSGVDECARQEGEGL  
TFFGTAPVRQQELASLLRITYLARLPWAGQLTKELPLSPAFFGEDGIFRHDRLRFRDFVDALEDSLEEVAVQQT  
GDDDEVDDFEDFIFSHFFGDKALKKRSGKKDKHSQSPRAAGPREGHSHSHHHHHRG

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**FIGURE 792**

CTCTTCTCACATCAGCGGGTCCAGGCCCAACCGACAGACTATGGGGGCTCCTTCACCAGGCGCTGCGTGAGTGG  
CTGCTGGGCTCTACTTCCTCAGCCACATCCCCATCACCTGTTTCATGGACCTGCAGGCGGTGCTGCCGCGGAG  
CTCTACCCAGTCGAGTTTAGAAACCTGCTGAAGTGGTATGCTAAGGAGTTCAAAGACCCACTGCTACAGGAGCCC  
CCAGCCTGGTTTAAGTCCTTTCTGTTTTGCGAGCTTGTGTTTCAGCTGCCTTTCTTTCCATTGCAACGTATGCC  
TTCCTCAAAGGAAGCTGCAAGTGGATTTCGAACCTCCTGCAATCATCTACTCTGTTACACCATGACAACCTTAATT  
CTGATACTCTCCACATTTCTGTTTGAGGATTTCTCCAAAGCCAGTGGTTTCAAGGGACAAAGACCTGAGACTTTG  
CATGAACGGTTAACCCTTGTGTCTGTCTATGCCCCCTACTTACTCATCCCATTCATACTTTTAATTTTCATGTTG  
CGGAGCCCCCTACTACAAGTATGAAGAGAAAAGAAAAAAAAAATGAAGGAAACAACCACTGGCCCCAGGGTAGAGAT  
GCCTACAGGGTGGTTGCTTGTGGATACATACAGGAACACTGCTCAGAACCACGTCCTCAGCAGCATTTGAAAC  
ACTGGCAGCAATGCACAAGAGCAAGATGGTGTGAGGAACCATGTCAAACCTCACCTTCTTCCATTTTTTTTTTT  
TTTTTGAGACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCC  
GCCTCCTGGGCTCAAGCCATCTTCCTTAGCCTCCCAAGTAGCTAGAACTACAGGTGTGTACCAACACGTATGGCT  
AATTTGTTTTGTTTTTTTTTGTGTGTGTGGAGACAGGGTTTTGCCATGTTGCCAGGTTGGTCTCGAACGCCTAGG  
CTCAAGTGATCTGCCACCTCAGTCTCCCTAAGTGCTGGGATTACAGACGTGAACCACTGGGCCCAGCCCCAAACC  
TTCACCTTCTAAGGGCACTGGGATGAACAGACCGATCGGCTTGAGGGTGGGCAAAGGGGTGTGGGCTAGGTTATA  
AGGAAGTGGTACCAAATAACTGTGTGCTGAGTTCACCGCAAGATTACTAAAAGCAGGACCAGACCAGAAACT  
GCTAAAGAACATGGCCTGTTTGACATGTTTCATGAGTCACCTGACCCACAGCATATATGCTTATGACTAAACCTC  
CACTCCTGATTCTCAAGAGTGTATCACCTGTGAGCAAAATGAATAGTGGGATATTTTGGGCCATTTTAAATGTGA  
AATTTGCCTCTTTAATGTTAATTCAAACTATATCAATGTTTTCTTGTTCACCTCTAACCAAGGAAAAAAG  
AGAAAACATACTATGCAAAGGAAGTTTAACTTAAGTTTTCTTAAGGGTCAGCCCAACAATGACTTTCAGTCAA  
ATGGATTAACTGGAAAATGTTTTGTTTCTGTTGTAAACAGATCATCCTAGGCGAAAGTTTTTTTTGTTTGT  
GCTTTTAAATTAGTTTATTTCTAAATCTTAGTCTTCCACATTTCTAGAGGCCACCTGACACAAGTCCCTGTATCT  
GAAGTCTAGCATCTCAAGGCTGATCTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAATCTTTAATACA  
GTTCCGTCATTCCCATCTTGTTTTCAGAAGAGAAGGTGGCTACAGCCAGGCATAACTTATCCACTGTGTGCATAG  
AGGGTCTCTTCAGTTGATGCTTGGCATTCCATCAGCTTTCTCTAAGTCTTTGCTCAAGTTCAAGGTAAATGA  
TGTTAGACAACAGGTCCCAGTCAGTCCCCTCTATTTTCACCCATTTTGCTCACAAGCCATATTGGCCCCGATTAGT  
GGTACTGTCTGACTCACGTGTGTGATCCAAATAAAGGTAGCTGCCGGAATT

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**FIGURE 793**

CTCTTCTCACATCAGCGGGTCCAGGCCCAACCGACAGACTATGGGGGCTCCTTCACCAGGCGCTGCGTGGAGTGG  
CTGCTGGGCCTCTACTTCCTCAGCCACATCCCCATCACCTGTTTCATGGACCTGCAGGCGGTCTGCGCGCGAG  
CTCTACCCAGTCGAGTTTAGAAACCTGCTGAAGTGGTATGCTAAGGAGTTCAAAGACCCACTGCTACAGGAGCCC  
CCAGCCTGGTTTAAAGTCCTTTCTGTTTTGCGAGCTTGTGTTTCAGCTGCCTTTCTTTCCCATTTGCAACGTATGCC  
TTCCTCAAAGGAAGCTGCAAGTGGATTCTGAACTCCTGCAATCATCTACTCTGTTTCACACCATGACAACCTTAATT  
CTGATACTCTCCACATTTCTGTTTGAGGATTTCTCAAAGCCAGTGGTTTCAAGGGACAAAGACCTGAGACTTTG  
CATGAACGGTTAACCCTTGTGTCTGTCTATGCCCCCTACTTACTCATCCCATTCATACTTTTAATTTTCATGTTG  
CGGAGCCCCCTACTACAAGTATGAAGAGAAAAGAAAAAATGAAGGAAACAACCACTGGCCCAGGGTAGAGAT  
GCCTACAGGGTGGTTGCTTGTGGATACATACAGGAACACTGCTCAGAACCCACGTCTTCAGCAGCATTTGAAAC  
ACTGGCAGCAATGCACAAGAGCAAGATGGTGTGAGGAACCATGTCAAACCCTCACCTTCTTCCATTTTTTTTTTT  
TTTTTGAGACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCC  
GCCTCCTGGGCTCAAGCCATCTTCCTTAGCCTCCCAAGTAGCTAGAACTACAGGTGTGTACCAACACGTATGGCT  
AATTTGTTTTGTTTTTTTTTGTGTGTGTGGAGACAGGGTTTTGCCATGTTGCCAGGTTGGTCTCGAACGCCTAGG  
CTCAAGTGATCTGCCCACCTCAGTCTCCCTAAGTGCTGGGATTACAGACGTGAACCACTGGGCCCAGCCCCAAACC  
TTCACCTTCTAAGGGCACTGGGATGAACAGACCGATCGGCTTGAGGGTGGGCAAAGGGGTGTGGGCTAGGTTATA  
AGGAAGTGGTACCAAATAACTGTGTGCCTGAGTTCCACCGCAAGATTACTAAAAGCAGGACCAGACCAGAAACT  
GCTAAAGAACATGGCCTGTTTGACATGTTTCATGAGTCACCTGACCCACAGCATATATGCTTATGACTAAACCCTC  
CACTCCTGATTCTCAAGAGTGATCACCTGTGAGCAAAATGAATAGTGGGATATTTTGGGCCATTTTAAATGTGA  
AAATTTGCCTCTTTAATGTTAATTCAAACCTATATCAATGTTTTCTTGTTCACCTCTAACCCAAGGAAAAAAG  
AGAAACATACTATGCAAAGGAAGTTTAACTTAAGTTTTCTTAAGGGTCAGCCCAACAATGACTTTTCAGTCAA  
ATGGATTAAACTGGAAAATGTTTTGTTTTCTGTTGTAAACAGATCATCCTAGGCGAAAGTTTTTTTTGTTTGT  
GCTTTTAAATTAGTTTATTTCTAAATCTTAGTCTTCCACATTTCTAGAGGCCACCTGACACAAGTCCCTGTATCT  
GAAGTCTAGCATCTCAAGGCTGATCTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAATCTTTTAATACA  
GTTCCGTCATTCCCCTCTTGTTCAGAAAGAGAAGGTGGCTACAGCCAGGCATAACTTATCCACTGTGTGCATAG  
AGGGTCTCTTCAGTTGATGCTTGGCATTCCATCAGCTTTCTTAAGTCTTTGCTCAAGTTCAAGGTTAAATGA  
TGTTAGACAACAGTCCCAGTCAGTCCCCTCTATTTTACCCATTTTGTCTACAAGCCATATTGGCCCGATTAGT  
GGTACTGTCTGACTCACGTGTGTGATCCAAATAAAGGTAGCTGCCGGGAATT

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**FIGURE 794**

LFHQRVQAQPTDYGGSFTRRCVEWLLGLYFLSHIPITLFMDLQAVVPRELYPVEFRNLLKWYAKEFKDPLLQEP  
PAWFKSFLFCELVFQLPFFPIATYAFLKGSKWIRTPAIIYSVHTMTTLILILSTFLFEDFSKASGFKGQRPETL  
HERLTLVSVYAPYLLIPFILLIFMLRSPYYKYEEKRKKK

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**FIGURE 795**

**ATG**TGGCTTCATCGAGTATTCCTTTGTGAATTCCTGGATGAAATTTTCAAGGCAAACAGGAAAAGCACTGAAATT  
GCTGAATGGTGGCGAACGGAGCCACGAGGGAAGGGAGCGCCGCCGCGCAGCTGCCGGGACACCAGGATACCACGCG  
GCCAGCACCGAAACGCTAGGCTCGCGCTCACAACCGCAATCTACACTGAGTAGCCGCGCGCCGAACGGCGTGACT  
AAGCCCCGCCCACACGGCGCTCCTGGCGGCCAATGGAAATGGCTTACGAGACGCCTTCTCCACGCGCTATACTTA  
TACGGACCAATGGGTGCGCCCTGTGGGGAGTGCCGCCCCCTGTCCACGAGCCTCCTTCTTCGCCAGCCAATGGA  
AGCGGTCTGCCTAGCCCTCGCGGGGGCAAGGCGGCGACCGAGGCGCGTGGGTCTGGGAAGGCGCGCGGATTTGGC  
CTCTTCTCACATCAGCGGTCCAGGCCCAACCGACAGACTATGGGGGCTCCTTCACCAGGCGCTGCGTGGAGTGG  
CTGCTGGGCTCTACTTCCTCAGCCACATCCCCATCACCTGTTCATGGACCTGCAGGCGGTGCTGCCGCGCGAG  
CTCTACCCAGTCGAGTTTAGAAACCTGCTGAAGTGGTATGCTAAGGAGTTCAAAGACCCACTGCTACAGGAGCCC  
CCAGCCTGGTTTTAAGTCCTTTCTGTTTTGCGAGCTTGTGTTTCAGCTGCCTTTCTTTCCATTGCAACGTATGCC  
TTCTCAAAGGAAGCTGCAAGTGGATTGCAACTCCTGCAATCATCTACTCTGTTTACACCATGACAACCTTAATT  
CTGATACTCTCCACATTTCTGTTTGAGGATTTCTCCAAAGCCAGTGGTTTCAAGGGACAAAGACCTGAGACTTTG  
CATGAACGGTTAACCCTTGTGTCTGTCTATGCCCCCTACTTACTCATCCCATTCATACTTTTAATTTTCATGTTG  
CGGAGCCCCCTACTACAAGTATGAAGAGAAAAGAAAAAAAAA**TGAA**AGGAAAACAACCACTGGCCCAGGGTAGAGAT  
GCCTACAGGGTGGTTGCTTGTGTGGATACATACAGGAACACTGCTCAGAACCCACGTCTTCAGCAGCATTTTGAAC  
ACTGGCAGCAATGCACAAGAGCAAGATGGTGTGAGGAACCATGTCAAACCCTCACCTTCTTCCATTTTTTTTTTT  
TTTTTGAGACAGTCTCACTCTGTTGCCAGGCTGGAGTAAAGGGCAGTGGCATGATCTCGGCTCACTGCAACCTCC  
GCCTCCTGGGCTCAAGCCATCTTCCTTAGCCTCCCAAGTAGCTAGAACTACAGGTGTGTACCAACACGTATGGCT  
AATTTGTTTTGTTTTTTTTTGTGTGTGTGGAGACAGGGTTTTGCCATGTTGCCCAGGTTGGTCTCGAACGCCTAGG  
CTCAAGTATCTGCCACCTCAGTCTCCCTAAGTGCTGGGATTACAGACGTGAACCACTGGGCCCAGCCCCAACC  
TTCACCTTCTAAGGGCACTGGGATGAACAGACCGATCGGCTTGAGGGTGGGCAAAGGGGTGTGGGCTAGGTTATA  
AGGAAGTGGTACCAATAACTGTGTTGCCTGAGTTCCACCGCAAGATTACTAAAAGCAGGACCAGACCAGAACT  
GCTAAAGAACATGGCCTGTTTGACATGTTTATGAGTCACCTGACCCACAGCATATATGCTTATGACTAAACCCTC  
CACTCCTGATTCTCAAGAGTGTATCACCTGTGAGCAAAATGAATAGTGGGATATTTTGGGCCATTTTAAATGTGA  
AATTTTGCCTCTTTAATGTTAATTCAAACTATATCAATGTTTTCTTGTTCACCTCTAACCCAAGGAAAAAAG  
AGAAAACATACTATGCAAAGGAAGTTTAACTTAAGTTTTCTTAAGGGTCAGCCCAACAATGACTTTTCAGTCAA  
ATGGATTAAACTGGAAAATGTTTTGTTTTCTGTTGTAAACAGATCATCCTAGGCGAAAGTTTTTTTTGTTTGT  
GCTTTTAAATTAGTTTATTTCTAAATCTTAGTCTTCCACATTTCTAGAGGCCACCTGACACAAGTCCCTGTATCT  
GAAGTCTAGCATCTCAAGGCTGATCTGGAAGTGTGCTAGTATGCTCCCTAGTGGATAACTTAATCTTTTAAATACA  
GTTCCGTCATTCCCCTCTTGTTCAGAAAGAGAAGGTGGCTACAGCCAGGCATAACTTATCCACTGTGTGCATAG  
AGGGTCTCTTACGTTGATGCTTGGCATTCCATCAGCTTTCTCTAAGTCTTTGCTCAAGTTCAAGGTTAAATGA  
TGTTAGACAACAGTCCAGTCAGTCCCTCTATTTTACCCATTTTGTCTACAAGCCATATTGGCCCGATTAGT  
GGTACTGTCTGACTCACGTGTGTGATCCAAATAAAGGTAGCTGCCGGGAATT

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**FIGURE 796**

MWLHRVFLCEFLDEIFKANRKSTEIAEWWRTEPRGKGAPPAAAGTPGYHAASTETLGSRSPQSTLSSRAPNGVT  
KPRPHGAPGGQWKWLTRRLHLYLYGPMGAPCGECRPLSTSLLFSPANGSGLPSRGGKAATEARGSGKARGFG  
LFSHQRVQAQPTDYGGSFTRRCVEWLLGLYFLSHIPITLFMDLQAVVPRELYPVEFRNLLKWYAKEFKDPLLQEP  
PAWFKSFLFCELVFQLPFFPIATYAFKLGSKWIRTPAIYSVHTMTLILILSTFLFEDFSKASGFKGQRPETL  
HERLTLVSVYAPYLLIPFILLIFMLRSPYYKYEKRKKK

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**FIGURE 797**

GGCTTACAGGAGGGCAGCTCTGCAGTTGGGAGGGGCACCGTCCGGAGGAGACCAGGCCTCTACACACCCCCCACT  
CTACTTATCATCCCTGCTCACACACCCTTGTTCCAAGGCTTTATGCATCGGATTTATTTTTCCAAATCAAGAGGAC  
AGTGATAGATGCATTTTCCCCAGGCTGTCTCAGAAAGGTCGCTAAATGTATACTGTTGTCAGAATTGCTGAGATC  
TCCCCCACTTTTGGTTTTTGCAGCAGTAAAACTCTTTCCACTGTGACTTATTTTCTCTCTCAGGCAGCCAGCC  
ACCTGGTCCCTTGTTGCTGACTCTAGCACAGTGGCCAGGATCCAATACGAGTCCAGGGGTGACCGCAGGATGGTGG  
GGGCAGCGGGCTTCTCCACCTACCCAGCCACCAAGGCCCTGACGCACTGCCTCCTGCACCTTCAGCACATCCCT  
GTGCACAGCTGGAAGGGTGCATGGCCCGCTCACCTTTGTTTCAGATGGGTGGAAACGCTGATGATACCAGCTCCTC  
CCTGCCGTGCCCTGCCACGGAGCAGGCATTGTGAAGTGGCTGGTGTGTCAGTCCCACGTGGCATGGCCTCCAG  
CCCAACCCACAGTGGAGACTGGAGACAGGGCAATGAGTCTGGTCGGGGGCACGTGGACATGCCCCATAGGGGGCC  
CACCCAGACTTAACAGGCAAGGTCCTGGGCATTGCGCGACGCAGGACTCAATGCTAAAGCAAGCCTGCCTGGCTC  
TGTGCCAGGGCCCCCTCTTCTGATTTACACATCCCATTTTTACACAGACCCTTCCTTCTTAATAAAGGCTGACAGT  
TCTGTTGGCAGCCAAGAACCCACACCATGAAGACAGGGAGTGAGGGGGCCTTTGTGCCAACTCCAGCACAGCTGC  
GTTCTGGGGTGTGTGAGAGGCATGTTTCGTGTCTGTGCGCTGGTGGTCTCGTGAGACAGTTCGAGGACGGGGAAA  
TTGCAGGGTGGTGGGGGCGTGAGGCTTATATGTGGAAGTGTGAGAGTTCGCCTGCAGACGGATCTGGATATAC  
ACTATGTATAATTGTTACGTGTAATTTAAATATATCTGTTTGCCATCGTCATGAGAAGATTATATGTAAGGCTC  
TGAAGGGAGAGGGAGATGTACATTCTGCCAGGCTCCTGGGGACCTTATCCGAGTCATGAAATTGATGACTGTTGA  
TCCAGTGGTGCAAGAAGCTACACTCCATGTGTTCATCACGCTTATTGACTCCTAATGTATTTTTAAGGCAAAAAATG  
TCAGCCGACTCCATCTTCACCCCTCGATTCTCGAGTCCAGCCTTTCTGTGCCAGTGCTTCACTGAGCCACAACG  
CTCTCGCCATCGGGACCCGGCTGGGCCTGGAGTCTCGGGGCACAGTTGCCATGGAGCCCTCCTGGGTCATTCTAC  
AAATGTGCTGAGTGCCAGCTGAAAACCCACAGGAGATGGAGTACCTTGGCCAAGCTTAAAGAGAAGATTTTCTC  
AGGGTATTTATTAGTGTGTCCAGCAGGGTCAGGAAGCAGGATGGAAAGATGCATTCACTGTTAATTTATTAAC  
AAGGCAATGATTTTTGTGTTTCTTGATGACAGACTATTAAGTTGGGACTTATTTTCCCATTTGAGAAGTTATAA  
TATATATTTAAGATGATAAGTTTCCTGCTTAAGTTGTGCCTTTCAGCTTCAATGAGTTAAGGAGCACTAAGGGT  
AATGATACCAATGAGGGTTGGTTTATTATCAAACCTGAATAGCTGTGGTTTCTCCAGTAAATATTTTCTTCTACT  
GAACATGGAGCCATTATTAAGAGTTGTGTGTTTTTATTATGTACATTTGTATATTTTTTTGCTTGTGTTGATGTT  
CTATTTTTCTAATAGTTTTCTTTTAGTTTTCTTAAAGTTGTGATACTAGATTTAGATTCTGATGCTAACTGCAAT  
CAGGTTGGTCTCTGCTGGGTCTCTCCTGCTTTTTATTTTACTTTAAGGACAAGTGTAGTTGTGCTCCACCACCTTT  
CAAAAAATGTGAACTGCCCTGCCTCCCTTTTTGCTGACAACACTGTGTACATTGACCACTTCCTACCATACTT  
TATGTTGTAAATCAAACCTCTTTTGTGGTACATTATCTCATGCTTCTGCAAATTCGAATAAATTCTATGGCTTCC  
AAAAAAAAAAAAAAAA

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**FIGURE 798**

MKLMTVDPVVQEATLHVSSRL



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**FIGURE 799**

GCGTCACCACAGAGGCAAGACAAGGGTCCATATCGCGGCATCCGGCTCCCGCCCGTCTTCAGGAGAGAAAGAAAA  
AATAAAATATACTTGGGGAAGTTGTACCTGCCAGAATTAGTAAGAGCTTTCTTTAAGAAGACATTTGTCAAACCTC  
AACAAATTGAAGGTTAACACCTTAAGAGTTGTAGTTACTGACCAGAAATATGGACAGACTTCTTAGACTTGGAGG  
AGGTATGCCTGGACTGGGCCAGGGGCCACCTACAGATGCTCCTGCAGTGGACACAGCAGAACAAGTCTATATCTC  
TTCCCTGGCACTGTTAAAAATGTTAAAACATGGCCGTGCTGGAGTTCCAATGGAAGTTATGGGTTTGTATGCTTGG  
AGAATTTGTTGATGATTATACCGTCAGAGTGATTGATGTGTTTGCTATGCCACAGTCAGGAACAGGTGTCAGTGT  
GGAGGCAGTTGATCCAGTGTTCCAAGCTAAAATGTTGGATATGTTGAAGCAGACAGGAAGGCCGGAGATGGTTGT  
TGGTTGGTATCACAGTCACCCTGGCTTTGGTTGTTGGCTTTCTGGTGTGGATATCAACACTCAGCAGAGCTTTGA  
AGCCTTGTCGGAGAGAGCTGTGGCAGTGGTTGTGGATCCCATTGAGAGTGTAAGGAAAGGTTGTTATTGATGC  
CTTCAGATTGATCAATGCTAATATGATGGTCTTAGGACATGAACCAAGACAAACAACCTCGAATCTGGGTCACCT  
AAACAAGCCATCTATCCAGGCATTAATTCATGGACTAAACAGACATTATTACTCCATTACTATTAACATATCGGAA  
AAATGAACTGGAACAGAAGATGTTGCTAAATTTGCATAAGAAGAGTTGGATGGAAGGTTTGACACTTCAGGACTA  
CAGTGAACATTGTAAACACAATGAATCAGTGGTAAAAGAGATGTTGGAATTAGCCAAGAATTACAATAAGGCTGT  
AGAAGAAGAAGATAAGATGACACCTGAACAGCTGGCAATAAAGAAATGTTGGCAAGCAGGACCCCAAACGTCATTT  
GGAGGAACATGTGGATGTACTTATGACCTCAAATATTGTCCAGTGTTTAGCAGCTATGTTGGATACTGTCGTATT  
TAAATTAA

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**FIGURE 800**

MDRLLRLGGGMPGLGQGPPTDAPAVDTAEQVYISSLALLKMLKHGRAGVPMMEVMGLMLGEFVDDYTVRVIDVFAM  
PQSGTGVSVEAVDPVFQAKMLDMLKQTGRPEMVVGWYHSHPGFGCWLSGVDINTQQSFEALSERAVAVVVDPIQS  
VKGKVVIDAFRLINANMMVLGHEPRQTTSNLGHLNKPSIQALIHGLNRHYYSITINYRKNELEQKMLNLHKKSW  
MEGLTLQDYSECHKHNEVVKEMLELAKNYNKAVEEEDKMTPEQLAIKNVGKQDPKRHLEEHVDVLMTSNIVQCL  
AAMLDTVVFK

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**FIGURE 801A**

GGGGACATTTTGGATTAACTTATGTAGGTTGCCAGCTAATGAATTGTAATTGATTTCAATCTTAGCTGATAAAT  
CTAATTGGTAATTTATAGAACAAATATTTGATAAGCTCCTATTAAATTGTCACCCACCAAGCGGACAGCTAACAT  
GAATTGCACTTCACTGCAGCTTTAGAGATCGGTTTAGGCTGAGACATTGCGCCTGCCTTAGGTTGCTGACTTCTT  
TATTTGAGAGCTCTGGAGACACCTAGTTTGAAAAATGTTATTTCTGTTTTTTTTGTGAGAACTTAGTAAACAAGAAA  
ATACTCTTGAGTGAAATGCAATGTATTTCTTTTGTAATCAGTGCATTGAAAATTCAAGCCAGCATATTCCTAGT  
AGATGGAAGCAAATTAAGTTGTCTTTGTAGAAAATGAAGAGCCTTTCTTCCAGCAAAAATCCCTGCTGTATGCA  
ATAGCCCTGATTAAACCCTCTCCCTTCTGCATGTTTCCCATATTACAGACTTGAGACTGTCTCATTTCCCATATGT  
AATAGACATCCAAAGAATTTCAATTGCTTTGTTGAACTTTTACTAATGATCTTGTTTTTATTTTCTCTCTTGT  
TTGGTTTTTCACCATTGATATTGTATTTAGAAGGTTTCAGGTGGGTGAAACCTCCTATTCCATGCGTAAGGTGCC  
TCGCTGAAGGGAGCTCGAGGCCTGGATCTAGGGCAGACACACAACCTCCTCCTCCTTCCAGCAAGGAACGCAC  
CGAAAAGTCACATGATGAGAAATATGGTAACGGGTTTGTAAGTGGCACAGCAAAACAATTTGCCTCCATGCCTGA  
ATCTTCTGTCTTGTTGGCTTCAGAAACAGCTTAAAAATAATTTTATTTACAAGCAAGTTATGTAAGAGAATGTTTTA  
TACTATAGCCACAATTTCTGTCAAAGATAAGTAAAGTTAATTGATATTAATAAATTATTAGAGATAATTTACTTAG  
TAAAAGCTTCTAACTCTTCTTGTGTTCAATTTTTTCTTTTTTCTTCTTGTGTTGGATTGCAGCATTCTGCTC  
TTCTGATGATGCGCTGTGACCCTGCAGTAGCGCAAAGGCTGCGCAGCGTTAATGCGCATTGCGTGCGAATGAACC  
CCTGTGAACGGTTGACTAGATGAGTAATCTGATTGACTGGCTCCCTCAGTCCTATTCTGTAGCCTTTTTGGATAA  
AATTGGGTTTTAACATACCTCGAGTCCAATACTCATTAACAAATATTCTCCATGGGCCTGTCTAGTAGATT  
AATGGATCTGGTTGGCCGTTTGTGCGTCTAGGGGTGTTCTATGTAGCGCAGCAGTTTCGAGCGATTGCGCAGTG  
CGATGCTGTTAGGTTGCGCAAGCGATGTTTGCCTCGCATTACAGGGACCTCAACCTAGGTGCAATCCTGTATG  
TGAGGTTTCAGCTTCAGTCTCTCTTGGGAGACGGGGCATTGTGAGAATGTAAGTAAAGCCTGGCTTTATGATAT  
CCTACTTGGCAGAAAGACATTTTTCTCCTCAGTAGCATAGTTTTGATGTTAGTGAGGAACATTGTTGAAGAGCAG  
CATTTCCCAAAATGTGTTTCATAGTATTCTAATAAAATGCCCAATGAAAGAAGAGTTCCATGGTCAACTAAGTTC  
AGGGAACCCCTGTTACACTATTAAAGGCTTAGGGAAGTCCAGTAAAGAAACCTATTTTCCGAATTTATTTGATCAT  
GAACTCCTTTTTTTTCAGCCATACCTCTTAACACCTCATAGAACACACTTCCGGAACAGTGGGGGTAGGAAAAC  
TCGGCCTCAAGTTGCGCCCTCTAGGTAGCACTTGAAAACATGACAAGGGCCCGTAGTTGTTTGGATAAGAGAACT  
CCAGCATAGAGCCTTATAGCAACTGACTTCCAGTTAAGTCCAGTGTAAGGGTTGGTCTTTGGTTGGCAGAACT  
GAACATGGTGGTTTGCACTTGGGTTCTGGTGGCGCAGGCGCAGGAGCAGCCAGCTGTGGCAGCGCATTAGTTTTG  
GCGCAAGCGAGCCTATGCTGCAGGGTCACTTTTTGGCTGGTCAGAGAAGGAATAATGATATCACCTTCTTCCCCC  
CTCCCCCAATCTTTTTTTTTTCCCTTTACAAATTTTCCCTTTCCCTTTACCTCCTTTCCCTCCCATCTTCTTT  
CATTAACCCCTCCTAAGGCATGTTATTTGAAAGCAATTGAGACGCAACCGAATTTGCAGTAGCTTGGAGTAATC  
TTGGCTGTGTTTTCAATGCACAAGGGGAAATTTGGCTTGCAATTCATCACTTTGAAAGGCTGTACCCCTTGACC  
CAAATTTCTGGATGCTTATATCAATTTAGGAAATGTCTTGAAAGAGGCACGCATTTTTGACAGAGCTGTGGCAG  
CTTATCTTCGTGCCCTAAGTTTGAGTCCAAATCACGCAGTGGTGCACGGCAACCTGGCTTGTGTATACTATGAGC  
AAGGCCTGATAGATCTGGCAATAGACACCTACAGGCGGGCTATCGAACTACAACCACATTTCCCTGATGCTTACT  
GCAACCTAGCCAATGCTCTCAAAGAGAAGGGCAGTGTGCTGAAGCAGAAGATTGTTATAATACAGCTCTCCGTC  
TGTGTCCCACCCATGCAGACTCTCTGAATAACCTAGCCAATATCAAACGAGAACAGGGAACATTGAAGAGGCAG  
TTCGCTTGTATCGTAAAGCATTAGAAGTCTTCCAGAGTTTGCTGCTGCCATTCAAATTTAGCAAGTGTACTGC  
AGCAGCAGGGAAAACCTGCAGGAAGCTCTGATGCATTATAAGGAGGCTATTGCAATCAGTCCTACCTTTGCTGATG  
CCTACTCTAATATGGGAAACACTCTAAAGGAGATGCAGGATGTTTCAGGGAGCCTTGCAAGTGTATACGCGTGCCA  
TCCAAATTAATCCTGCATTTGCAGATGCACATAGCAATCTGGCTTCCATTGATAAGGATTGAGGGAATATTCCAG  
AAGCCATAGCTTCTTACCGCACGGCTCTGAACTTAAGCCTGATTTTCTGATGCTTATTGTAAGTTGGCTCATT  
GCCTGCAGATTGCTGTGATTGGACAGACTATGATGAGCGAATGAAGAAGTTGGTCAGTATTGTGGCTGACCAGT  
TAGAGAAGAATAGGTTGCCTTCTGTGCATCCTCATCATAGTATGCTATATCCTCTTCTCATGGCTTCAGGAAGG  
CTATTGCTGAGAGGCACGGCAACCTGTGCTTAGATAAGATTAAATGTTCTTCATAAACCACCATATGAACATCCAA  
AAGACTTGAAGCTCAGTGATGGTTCGGCTGCGTGTAGGATATGTGAGTTCCGACTTTGGGAATCATCCTACTTCTC  
ACCTTATGCAGTCTATTCCAGGCATGCACAATCCTGATAAATTTGAGGTGTTCTGTTATGCCCTGAGCCCAGACG  
ATGGCACAACTTCCGAGTGAAGGTGATGGCAGAAGCCAATCATTTTCAATTGATCTTTCTCAGATTCCATGCAATG  
GAAAAGCAGCTGATCGCATCCATCAGGATGGAATTCATATCCTTGTAATATGAATGGCTATACTAAGGGCGCTC

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**FIGURE 801B**

[illegible]

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**FIGURE 802**

MLQGHFWLVREGIMISPSSPPPNLFFFPLQIFPPFTSFPSHLLSLTPPKACYLKAIETQPNFAVAWSNLGCVF  
 NAQGEIWLAIHHFEKAVTLDPNFLDAYINLGNVLKEARIFDRAVAAYLRALSLSPNHAVVHGNLACVYYEQGLID  
 LAIDTYRRAIELQPHFPDAYCNLANALKEKGSVAEAEDCYNTALRLCPTHADSLNNLANIKREQGNIIEAVRLYR  
 KALEVFPEFAAAHSNLSVQQQGLQEALMHYKEAIRISPTFADAYSNMGNTLKEMQDVQALQCYTRAIQINP  
 AFADAHSNLSIHKDSGNIPEAIASYRTALKLKPDFFDAYCNLAHCLQIVCDWTDYDERMKKLVSIADQLEKNR  
 LPSVHPHHSMLYPLSHGFRKAIAERHGNLCCLKINVLHKPPYEHKDLKLSDGRLRVGYVSSDFGNHPTSHLMQS  
 IPGMHNPDKFEVFCYALSPDDGTNFRVKVMAEANHFIQLSQIPCNGKAADRIHQDGIHILVNMNGYTKGARNELF  
 ALRPAPIQAMWLGYPGTSGALFMDYIITDQETSPAEEVQYSEKLAYMPHTFFIGDHANMFPHLKKKAVIDFKSN  
 GHIYDNRIVLNGIDLKAFDLSDLPVKIVKMKCPDGGDNADSSNTALNMPVIPMNTIAEAVIEMINRGQIQITING  
 FSISNGLATTQINNKAATGEEVPTIIVTTTSQYGLPEDAIVYCNFNQLYKIDPSTLQMWANILKRVPNVSVLWLL  
 RFPVAGEPNIQQYAQNMGLPQNRIFSPVAPKEEHVRRQLADVCLDTPLCNGHTTGMDVLWAGTPMVTMPGETL  
 ASRVAASQLTCLGCELELIAKNRQEYEDIAVKLGTDLEYLKKVRGKVWKQRISPLFNTKQYTMELERLYLQWWEH  
 YAAGNKPDHMIKPVEVTESA

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**FIGURE 803**

GGAGGAGGAAGCAAGCGAGGGGGCTGGTTCCTGAGCTTCGCAATTCCTGTGTGCGCCTTCTGGGCTCCCAGCCTGC  
 CGGGTCGCATGATCCCTCCGGCCGGAGCTGGTTTTTTTTGCCAGCCACCGCGAGGCCGGCTGAGTTACCGGCATCC  
 CCGCAGCCACCTCCTCTCCCGACCTGTGATACAAAAGATCTTCCGGGGGCTGCACCTGCCTGCCTTTGCCTAAGG  
 CGGATTTGAATCTCTTTCTCTCCCTTCAGAATCTTATCTTGGCTTTGGATCTTAGAAGAGAATCACTAACCAGAG  
 ACGAGACTCAGTGAGTGAGCAGGTGTTTTGGACAATGGACTGGTTGAGCCCATCCCTATTATAAAAAATGCTCAG  
 AGCAACCGGGAGCTGGTGTTGACTTTCTCTCTCTACAAGCTTTCCAGAAAGGATACAGCTGGAGTCAGTTTAGT  
 GATGTGGAAGAGAACAGGACTGAGGCCCCAGAAGGGACTGAATCGGAGATGGAGACCCCCAGTGCCATCAATGGC  
 AACCCATCCTGGCACCTGGCAGACAGCCCCGCGGTGAATGGAGCCACTGGCCACAGCAGCAGTTTGGATGCCCGG  
 GAGGTGATCCCCATGGCAGCAGTAAAGCAAGCGCTGAGGGAGGCAGGCGACGAGTTTGAACGCGGTACCGGCGG  
 GCATTCACTGACCTGACATCCAGCTCCACATACCCCCAGGGACAGCATATCAGAGCTTTGAACAGGTAGTGAAT  
 GAACTCTTCCGGGATGGGGTAAACTGGGGTTCGATTGTGGCCTTTTTCTCTCTCGGCGGGGCACTGTGCGTGGAA  
 AGCGTAGACAAGGAGATGCAGGTATTGGTGAGTCGGATCGCAGCTTGGATGGCCACTTACCTGAATGACCACCTA  
 GAGCCTTGGATCCAGGAGAACGGCGGCTGGGATACTTTTGTGGAATCTATGGGAACAATGCAGCAGCCGAGAGC  
 CGAAAGGGCCAGGAACGCTTCAACCGCTGGTTCTGACGGGCATGACTGTGGCCGGCGTGGTTCTGCTGGGCTCA  
 CTCTTCAGTCGAAAATGACAGACACTGACCATCCACTCTACCCTCCACCCCCCTTCTCTGCTCCACCACATCCT  
 CCGTCCAGCCGCCATTGCCACCAGGAGAACCCTACATGCAGCCCATGCCACCTGCCCATCACAGGGTTGGGCC  
 CAGATCTGGTCCCTTGCAGCTAGTTTTCTAGAATTTATCACACTTCTGTGAGACCCCCACACCTCAGTTCCCTTG  
 GCCTCAGAATTCACAAAATTTCCACAAAATCTGTCCAAAGGAGGCTGGCAGGTATGGAAGGGTTTGTGGCTGGGG  
 GCAGGAGGGCCCTACCTGATTGGTGCAACCCTTACCCCTTAGCCTCCCTGAAAATGTTTTTCTGCCAGGGAGCTT  
 GAAAGTTTTCAGAACCTCTTCCCCAGAAAGGAGACTAGATTGCCTTTGTTTTGATGTTTGTGGCCTCAGAATTGA  
 TCATTTTCCCCCACTCTCCCCACACTAACCTGGGTTCCTTTCTCTCCATCCCTACCCCTAAGAGCCATTTAG  
 GGGCCACTTTTGACTAGGGATTAGGCTGCTTGGGATAAAGATGCAAGGACCAGGACTCCCTCCTCACCTCTGGA  
 CTGGCTAGAGTCCTCACTCCCAGTCCAAATGTCTCTCAGAAGCCTCTGGCTAGAGGCCAGCCCCACCCAGGAGGG  
 AGGGGGCTATAGCTACAGGAAGCACCCCATGCCAAAGCTAGGGTGGCCCTTGCAAGTTTACAGCACCACCTAGTCCC  
 TTCCCTCCTTGCTCCCATGACCATACTGAGGGACCAACTGGGCCCCAAGACAGATGCCCCAGAGCTGTTTATGG  
 CCTCAGCTGCCTCACTTCTTACAAGAGCAGCCTGTGGCATCTTTGCCTTGGGCTGCTCCTCATGGTGGGTTTACAGG  
 GGAAGGGCAGGAAGGAGAGCCTGCTGCATGGGGTGGGGTAGGGCTGACTAGAAGGGCCAGTCTGCTGGCCAGGC  
 AGATCTGTGCCCCATGCCTGTCCAGCCTGGGCAGCCAGGCTGCCAAGGCCAGAGTGGCCTGGCCAGGAGCTCTTC  
 AGGCCTCCCTCTCTCTTCTGCTCCACCCTTGGCCTGTCTCATCCCCAGGGTCCCAGCCACCCCGGGCTCTCTGC  
 TGTACATATTTGAGACTAGTTTTTATTCCTTGTGAAGATGATATACTATTTTTGTAAAGCGTGTCTGTATTTATG  
 TGTGAGGAGCTGCTGGCTTGCAGTGCGCGTGCACGTGGAGAGCTGGTGCCCGGAGATTGGACGGCCTGATGCTCC  
 CTCCCTGCCCTGGTCCAGGAAGCTGGCCGAGGGTCTGGCTCCTGAGGGGCATCTGCCCTCCCCAACCCCC  
 ACCCCACACTTGTTCAGCTCTTTGAAATAGTCTGTGTGAAGGTGAAAGTGCAGTTTCAATAAACTGTGTTTA  
 CTCAGTGAAAAAAAAAAAAAAAAAAAA

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**FIGURE 804**

MSQSNRELVVDFLSYKLSQKGYSWSQFSDVEENRTEAPEGTESEMETPSAINGNPSWHLADSPAVNGATGHSSSL  
DAREVIPMAAVKQALREAGDEFELRYRRAFSDLTSQLHITPGTAYQSFEQVVNELFRDGVNWGRIVAFFSFGGAL  
CVESVDKEMQVLVSRIAAMATYLNHLEPWIQENGGWDTFVELYGNNAAAESRKGQERFNRWFLTGMTVAGVVL  
LGSLSRK

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**FIGURE 805**

GGCACGAGGCGTCCCGGCGCCACTCGGCCCAGGGCAGGGACCCCGCCACGGCCGGGACCGCCCGGCCCGGCCCA  
GCCCCGCGCTCTCCGCGCCGCCCCGCGCTCCGCACCGCGCCCTCTCCGCGTCCCCGCCCCGCGCGGCCGGACCGGG  
CAGCCAGAAAAATCATTCTTTCTTCTGGAAGGTGAACATTTGTAGCATTGATTTCCCGGATCTGGTAAC**ATGG**  
CAAAAGATGCCGGTCTAATTGAAGCCAACGGAGAACTCAAGGTCTTCATAGACCAGAACCTTAGTCCCCGGGAAAG  
GCGTGGTGTCCCTCGTGGCCGTTACCCCTCCACCGTCAACCCGCTCGGGAAGCAGCTCTTGCCAAAAACCTTTG  
GACAGTCCAATGTCAACATTGCCCAGCAAGTGGTAATTGGTACGCCTCAGAGACCGGCAGCGTCAAACACCCCTGG  
TGGTAGGAAGCCACACACCCCCAGCACTCACTTGCCTCTCAGAACCAGCCTTCCGACTCCTCACCTTGGTCTG  
CCGGAAGCGCAACAGGAAAGGAGAGAAGAATGGCAAGGGCCACGGCATTCTCCATGAAGGTCTGCGAGAAGG  
TGCAGAGGAAAGGGACCACTTCTACAACGAAGTGGCAGACGAGCTGGTTGCGGAGTTCAAGTGTGCCGACAACC  
ACATCTTACCAAACGAGTCAGCTTATGACCAGAAAAACATAAGACGGCGCGTCTACGATGCCTTAAACGTGTCTAA  
TGGCCATGAACATCATCTCCAAGGAGAAGAAGGAGATCAAGTGGATTGGTCTGCCCACCAACTCGGCTCAGGAAT  
GTCAGAACTTAGAGGTGGAAAGACAGAGGAGACTTGAAAGAATAAAACAGAAACAGTCTCAACTTCAAGAACTTA  
TTCTACAGCAAATTGCCTTCAAGAACCTGGTGCAGAGAAACCGGCATGCGGAGCAGCAGGCCAGCCGGCCACCGC  
CACCAACTCAGTCATCCACCTGCCCTTCATCATCGTCAACACCAGCAAGAAGACGGTCATCGACTGCAGCATCT  
CCAATGACAAATTTGAGTATCTGTTAATTTTGACAACACATTTGAAATCCACGATGACATAGAAGTGCTGAAGC  
GGATGGGCATGGCTTGCGGGCTGGAGTCGGGGAGCTGCTCTGCCGAAGACCTTAAATGGCCAGAAGTCTGGTCC  
CCAAGGCTCTGGAGCCATACGTGACAGAAATGGCTCAGGGAAGTGTGGAGGCGTGTTCATCACGACGGCAGGTT  
CCACGTCTAACGGCACAAGGTTCTCTGCCAGTGACCTGACCAACGGTGCAGATGGGATGCTGGCCACAAGCTCCA  
ATGGGTCTCAGTACAGCGGCTCCAGGGTGGAGACTCCGGTGTCTACGTGCGGGAGGACGACGAGGAGGACGATG  
ACTTCAACGAGAATGACGAGGACGAC**TGAC**CGTCTCCCCACTTCAGATTGGGCTTCAGGAAAACGTTTAGCGAAA  
AGAAACTTTTTTTTTAATGTGGGTTTTCTGTTTCCTTTTGGCCTACTCCCAAGAAGATATTGGTAAGCTATTGAA  
TTTAGATATGCACCTCTGATAAGCAAGGATTGTTTCCCGTAGGATTAGGACGTGCTGTGGATGTGTGTTTTGATA  
CCAGTGTGCTGATGCAGAGCGTTTATTTAGTTGTTAGGATTTTGTGTTTTTCAATTTGCTATTTTTCTTTAAGTGCA  
GAGTTCATTTTTGCCCCTGAAAAGTTTTTGCTGAGTTTGCTGAAGAAATTGTATTTCAACCACATCCATGAAAAT  
AAAACACCTCCTGTTGTGGATGGTGAGCCCCTGATGCCGCTTATTTGCCGTGAGTTTGGACGGCACCCCTGCTGG  
CGGATAGCAAGACTCTGTGGAGTTTGTTCAGTGGTACGGTGTCCAAGCAAACAGCAGAATGCAACTTTCTAAACA  
GCCCCAAGCAAACAGCAGAATTCAACTTTTTAAACAATAAACACCATCAACCTTATTGACTTTATTGTCCCTTAA  
ATTATATTGACTGTTGTGATTCCATCAAGTTTGTACACTCTTTTCTCTCCCTGTTTTGCAGCAACAAATTGCGAA  
GTGCTTTTGTGTTTGTGTTTTCGTTTGGTTAAAGCTTATTGCCATGCTGGTGGGCTATGGAGACTGTCTGGAAG  
GCTTGGAATGGTTTATTGCTTATGGTAAAATTTGCCTGATTTCTTACAGGCAGCGTTTGGAAACCTTTTATTATA  
TAGTTGTTTACATACTTATAAGTCTATCATTTAAAGACATGTACTGAAACAAATGTATTTGTTTCATAAGCATCT  
TCCTGTAATCTATTATAAAATTGAAATTAAATATAGAGAATGTTTTAACAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 806**

MAKDAGLIEANGELKVFIDQNLSPGKGVVSLVAVHPSTVNPLGKQLLPKTFGQSNVNIAQQVVIGTPQORPAASNT  
LVVGSPHTPSTHFASQNQPSDSSPWSAGKRNKGEKNGKGLRHFSMKVCEKVQRKGTTSYNEVADELVAEFSAAD  
NHILPNESAYDQKNIRRRVYDALNVLAMNIIISKEKKEIKWIGLPTNSAQECQNLEVERQRRLERIKQKQSQLQE  
LILQQIAFKNLVQRNRHAEQQASRPPPPNSVIHLPFIIVNTSKKTVIDCSISNDKFEYLFNFDNTFEIHDDIEVL  
KRMGMACGLESGSCSAEDLKMARSLVPKALEPYVTEMAQGTVGGVFITTAGSTSNGTRFSASDLTNGADGMLATS  
SNGSQYSGSRVETFPVSYVGEDDEEDDDFNENEDDD

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**FIGURE 807**

ACTTATACATCTGTAAAGGIGGTTTCAGGGACCTTTCTGAACTTAGCCCGTATCTCACTGGTGATCCCACTTCTG  
GGTATTTGCAAATCAGTTTATTAGGTTTTTAAAAGTATTGTTGCAGGCATGCGAAGGGGCCGATATACTTTTGCC  
ATGTCCAGAGTGATTTCAGGTCTTGTAATGATCATATGGGTGTAATATTGAGTAACAGGCAAATGTGGGCAGAAA  
ATATCAAATGTGGTTTTTCAGCTAAGAAGTCTGGTTGCTCTTAATTTTCAGTTACTCTCCATTGCATAGAATAAAG  
CCCCGAAGAAACGAAGAATAAGATCATGGGGAACTTGGCTTCCATGTTAAACCGTGTAAACCAGGTGTTAGAA  
TAGTAGTAAAGGACTTGTTTCTTTCACATCTATATACACTCAAAGACCTCATCGATCTTGGAACAAACATTGTTT  
CGAAGACAATGTGTATGACTGATTTGGTTATATGAAGAAATTATTTCTAGGATTTCTGTAATTCTGTGATAAA  
CAGTAATACAACTGGAATTTTACAGGTCACTATAGTAGAGGTTTGTGTTGATTTTGCCTTGCCTGTCATGC  
TCTCTCTGCCTTATAATTCTTTGTGGTGTAATTAACAAACGAACTNNNNNNNNNNNNNNNNNNNNNNNNNNNN  
NNNNNNNNNTGCAAACACATTTTAATTGACAACACTAGGGCTGTTGTACAAATAGTAATGATAGCCATGGAAG  
TTTTACCTTATTCTGTGAGAAGTGTTCTTAACTTATTAAGTGCTAAACTAAGGTTTAGTGCTTTTTTAAAGGA  
AAGTTGTCCCAGGATTCATCCTAAAGAAAGCAAAAGTTAATTCAACTGATCCACCAATGGAATTAGATGGGTAGA  
GTTGGGTTCTTGAGTTTTACCACCACCTTAGTTCCCACTGAATTTTGTAACCTCCTGTGTTTGCATCCTCTGTTCC  
TATTCTGCCCTTGCTCTGTGTCATCTCAGTCATTTGACTTAGAAAGTGCCCTTCAAAGGACCCTGTTCACTGCT  
GCACTTTTCAATGAATTAATAATTTATTTCTGTTCTAGTGGGAATGTGTCCTTTGTTTTAGTTTACAAGTAGTAAT  
TTTGACAAGATGCTTTCTTCTGATGCAGTTTGTTTTAATCACTCACCTAGTACTAGAAATGGCTTTCTAGTCAGA  
TCCTATAGTCTCTACCTGTATAGCTCTTACATACA

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**FIGURE 808**

MLSSDAVCFNHSPSTRNGFLVRSYSLYLYSSY

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**FIGURE 809A**

CCGTCCCGGGGCGGACGGGCGCGGGCGGGAGGATGGAGCTGAACTCCCTGCTGATCCTGCTGGAGGCGGCCGAGT  
ACCTGGAGCGCAGGGATCGAGAGGCCGAGCACGGCTACGCCTCGGTGCTGCCCTTCGACGGCGACTTCGCCAGGG  
AGAAAACAAAGGCGGCCCGCCTGGTGCGAAGGCCCGAACAACAGGTCTTCACACAACGAGCTAGAAAAGCACA  
GACGAGCCAACTCAGGCTGTACCTTGAGCAGCTCAAGCAACTGGTGCCCTGGGCCCCGACAGCACCCGCCACA  
CCACGCTGAGCCTCCTGAAGCGGGCCAAGGTGCACATCAAGAACTGGAGGAGCAGGACCGCCGGGCACTGAGCA  
TCAAGGAGCAGCTGCAGCAGGAGCATCGTTTCTGAAGCGGCGCCTGGAGCAGCTGTCTGGTGCAGAGCGTGGAGC  
GCGTGCGCACAGATAGCACGGGCTCTGCTGTCTCCACGGACGACTCAGAGCAAGAAGTGGACATAGAGGGCATGG  
AGTTTGGCCCTGGTGGAGCTGGACAGTGTGGCAGCAGCAGTGACGCGGACGACCACTACAGCCTGCAGAGTGGCA  
CCGGCGGGCAGAGTGGCTTCGGGCCCCACTGCCGGCGGCTGGGCGCCCCGCCCTCTCGTAGGCCCGTGCCCTCT  
GCTCCTTGGCCTGCCTGCCCGCCAGCCACGCGTGTGAGCCCTCCAGTTCTCCTTCAGTTGACGCCAGCCTCTCCA  
CAGGCCCCACTGCTGTGCCATTCTGGAAGCTCCAGCTGCTGCTGGGCTGCCTGGCACTGCCCGCTTGCCGGTCAAG  
GCCTGCCGAGCTGCCTGCCCTTCCAGCTGGGCAGAGTCCCCTGCAAGGAGGCAGGGCCCAGCTTCCACATCCGG  
AGCCCTGGTCAGCATAGCCGCCACGGTCTGTTCTCAGATTCTAATCATTCAGAAGTATTAAACGTCATTGCT  
GCAAACCTCGGCAGGTGCCGTGTGAGGGGCTTAATGACCACCACAGGGAGCTCAGACCCCAACCCTGGATCCAG  
GAGAAAGGAGTGGACCGAGGAAGGAAGGAAGGAAGGCTGTCTGTCCATCCGTCCGTCTGTCCACCTACCTGTCA  
GTCCACATAGGCTCCTGGCGTGGACAAGGGGTCTGTGAAGGGCGGGAAGTGGGTGAGCACCTGGGGCAGGTGGGT  
GGTTAAGGTCCTTCCCACTTCGCAGGTGTGAGAACCTAGGGCTGGGCTCTCGGGGCCAGGCAGGCCAGCCAGCC  
CACGCCGAGCTGGGCAGCGTCTGCTCTGGTAGGACTGTGAGACGCACACGCGCACGCACCTAGACACACCCACTC  
ATGTACATGCTCACACATGCAGACACACCTGGGCGTCCCGAGGTACATGTTCTGGGGATGATGGCCTTCAGGGG  
TCATCTGGCAAACAGCCCTGGGCTGTGCCTGGATCCCCCTCTAGCTCCTGCTCACCACGCCACCCAGTAGTC  
CTGCCTGTCTGCACAGGAGAGGGGCTTCTCTTCTGGCTGGGGCTGGGGTGAAGTGGAGGCTGGTTAAGTTGCAG  
CCGCTGGGTCTCGGGGGCTTACTCATCTCCCTTTTTTAAACAAAAAGCAAAAAAGTAAAATGCTGCACTGCCCA  
GCAGCCCGGTTAGGGCTCCTGGAGCCACCTTAGGAAAGGGCTTCTCATGAGCTCTGCTGCGGCAGCTTCAGCTGG  
CAGAGAGGCTTTCCAGAAAAAAGGCTTCTCATGAGCTCTGCTGCGGCAGCTTCAGCTGG  
CGTCCGTGTGTGCCGCTCTGTTTCTGTACAGATTTTGTATTCTATTTTCTAGCTGTTGTTGCGTCTTGT  
TTGTGAGGGGTGGGAGCCACCCAGCGTCTCAGGGACCTGTCCCTCCGTACGTCGTCAAAGTGTGCCTTGTGTC  
TTGTGTCAGGCCCTTGCCCTTCCACCCAGCATGTCCCTCGTGGCTCAGGGTGCCCCAGGCCTGCCAGCTAGTGCT  
GTCCTCCCATCTCCTGTGGGAGCCCTTCCGGCAGCCAGGGCTTCTGGAGGCGATGCAGCCAGGCCCCGTGG  
GTGGCAGGAGGGGCTGTGACCTGGTCCCCAGTGTGGCCCTCCCCAGTGGCTGGCAGGGGCTGCTTGTCTACTA  
GAGAGATGGATTCTCACCTGTACCTGACTCGAGCCCCCTGCTTCTGGCCTAGGCGAGGGTTCCAGGTTTCA  
CACTGGCAGCCAATGAAGACTGTGCTCGCTGGGTGGTGCAGGCCTGGCACCAGGAGGCTTGACCCGCCTTTCT  
TCCTGACGTCTCTGTCTTGGGGCTGGCCCATAGCAGTGCCTGCCGTGCCTCTGGTACATCTGTAGCCAATTCC  
CATATCATGGGAAAAATTCTGTCTATTTTTCAGTCGTACGCATAGACGCCCCAGGATGGGGGGCCCACTGTGGCG  
GAAGGGGGTCCCTGGAAACAACCTGGCACAGAACCTGCCCTGCAGGCTGTAGGGGGCATGGTGCCTGGAGCTGA  
GGGGCATCCGAACGCGTTGCGGGTGGTTGTGAGGAGGCTGTCTGCATCTCCTTCCGGCCCCACTGGGGTCCAGG  
GGTGCCAGAAAGGAGCTTCCCTGCCTGCCTGAGTCTGTCCCCCAGGCTTCATTTCAAACACCGTGGCACCTC  
CGAGCAAGGCGGGCCGTGTGTAAAGCTTGCTTCCCCAGCCAGCACTGCAGGGCCCTGAGGTGGTCTGTCTCCCTG  
CCCTCAATTCTTGAAGCACCAGCTCCCTGCCCCACCCTCCAGTGCCTGAGGCAGCTAGGGGCTTCTGCTCTCATC  
TCTGACCAGCAGAAATCCACCGGTGACCAGTGGTGGCCCCCTCAGCCACCCCTCCCGGCAGCTCAGCCTGTGGCTC  
TTGAGGCCGTGGTTCCACGTGGACTGGGAGGCACTCAGCCACCCGGGTGCTGTTTCACTGCCCCCTCCCTGC  
CATCAGCAGGTGGGTGAGGGGTGCCCCACTGGGTGGGGGCGCTGCTAGGAGTCAACCATGCTCCAACCTCCCA  
CTGCTCCCTGTGAGGGGGCCAGGCTGCCATCACTGGAGGCTGCAGGGACCAAGAGGCCATCACCCTGTCTATAGA  
GAGCAGACAGAAGCAGAACAGAGCCCGGGGCTCCTGAGCCTCTGCGTGTGCCCTCCAGCCACACCAGTGCTCT  
CGGCCACTGAGCACCCAGACTCAGGCTTGGGTTCGCCAGCCTTATTGGAAGGCAGCTCCCGCATACCAGGATAAC  
CCCCGCAAACCACATAGCAGACCCCGCCATCCTCGCAGAGTGGGAGAGGCTGCAGCAAGGCTTTGCCTCTGCAG  
ACCCCATCTTAGTGGCACGGTGTGGGCTGTGTCCCCGGGTGGTGAACCCTGTACCGGTCTGTGGCCCTAGG  
GTCCCTGCTCTGTCTGCCCCGGCCCGTGTGTCCGCTGGGTGAGGCAGGCTCCCCCGTGCCTGCCTCCCTCTGT  
CAGGGAACCTGGGACCCCTCCCACTGCCTGCACAGAGGACCTGACCCTCGGCCAGCAGGGTGGCCCCAGGTC

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**FIGURE 809B**

CATGTTGGGCACTAGGGCAGGTTCCGTGCCAGAGTCGGGGGCCACACGAGGGCCTGGTGCCGGTGAGGGGGGCGT  
GCGCTAGAGGGGAAAGGGCCCCCGGCCACCTGTCCACCGTGTGGGCCGTGCTGTGTCCTTATGTCATTGTAAT  
ATAAATACAGATTTTTATATCTC

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**FIGURE 810**

MELNSLLILLEAAEYLERRDREAHEGYASVLPFDGDFAREKTKAAGLVRKAPNNRSSHNELEKHRRAKLRLYLEQ  
LKQLVPLGPDSTRHTTLLKRAKVHIKKLEEQDRRALSIKEQLQQEHRFLKRRLEQLSVQSVRVRTDSTGSAV  
STDDSEQEVDIEGMEFGPGELDSVGSSDADDHYSLSQSGTGGDSGFGPHCRRLGRPALS

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**FIGURE 811**

CGCGGGCGGGAGGATGGAGCTGAACTCCCTGCTGATCCTGCTGGAGGCGGCCGAGTACCTGGAGCGCAGGGATCG  
AGAGGCCGAGCACGGCTACGCCTCGGTGCTGCCCTTCGACGGCGACTTCGCCAGGGAGAAAACAAAGGCGGCCGG  
CCTGGTGCACAAGGCCCCGAACAACAGGTCTTCACACAACGAGCTAGAAAAGCACAGACGAGCCAAACTCAGGCT  
GTACCTTGAGCAGCTCAAGCAACTGGTGCCCTGGGCCCCGACAGCACCCGCCACACCACGCTGAGCCTCCTGAA  
GCGGGCCAAGGTGCACATCAAGAACTGGAGGAGCAGGACCGCCGGGCACTGAGCATCAAGGAGCAGCTGCAGCA  
GGAGCATCGTTTCCTGAAGCGGCGCCTGGAGCAGCTGTCGGTGCAGAGCGTGGAGCGCGTGCACAGATAGCAC  
GGGCTCTGCTGTCTCCACGGACGACTCAGAGCAAGAAGTGGACATAGAGGGCATGGAGTTTGGCCCTGGTGAGCT  
GGACAGTGTGGCAGCAGCAGTGACGCGGACGACCACTACAGCCTGCAGAGTGGCACC GGCGGCGACAGTGGCTT  
CGGGCCCCACTGCCGGCGGCTGGGCCGCCCCGCCCTCTCGTAGCCCCGTGCCCTCTGCTCCTTGGCCTGCCTGCC  
CGCCAGCCACGCGTGTACGCCCTCCAGTTCTCCTTCAGTTGACGCCAGCCTCTCCACAGGCCCCACTGCTGTGCCA  
TTCTGGAAGCTCCAGCTGCTGCTGGGCTGCCTGGCACTGCCCCGCTTGCCGGTCAGGGCCTGCCGAGCTGCCTGCC  
CCTTCCAGCTGGGCAGAGTCCCCTGCAAGGAGGCAGGGCCCAGCTTCCACATCC

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**FIGURE 812**

MEINSLILLLEAAEYLERRDREAEHGYASVLPFDGDFAREKTKAAGLVRKAPNNRSSHNELEKHRRAKLRLYLEQ  
LKQLVPLGPDSTRHTTLLKRAKVHIKKLEEQDRRALSIKEQLQQEHRFLKRRLEQLSVQSVERVRTDSTGSAV  
STDDSEQEVDIEGMEFGPGELDSVGSSDADDHYSLSQSGTGGDSGFGPHCRRLGRPALS



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**FIGURE 813A**

GTTGGAGCGGCGCTGCTCGGCCGCGGACACACGAGGGACGCGCCCGAGGAGCTGCAGGTGGCAGCCCAGGCGGT  
CGAACCCGTCGGCCGCGCCGAGCCTGGAGTATTGCCTAAGTGTAATCTTGAACATGGGCGGTGCTGTGAGTGCTGG  
TGAAGACAATGAAGAGCTGATAGATAATTTGAAAGAAGCACAGTATATCCGGACTGAGCTGGTAGAGCAGGCTTT  
CAGAGCTATCGATCGTGCAGACTATTATCTTGAAGAATTTAAAGAAAATGCTTATAAAGACTTGGCATGGAAGCA  
TGGAAACATTACCTCTCAGCCCCGTGCATCTACTCGGAGGTGATGGAAGCCCTAGATCTGCAGCCTGGACTCTC  
GTTTCTGAACCTGGGCAGTGGCACTGGGTATCTCAGCTCCATGGTGGGCCTCATTCTAGGTCCTTTTGGTGTGAA  
CCATGGGGTGGAACTTCACTCAGATGTGATAGAGTATGCAAAGCAGAACTGGACTTCTTCATCAGAACAAGTGA  
TAGTTTTGACAAGTTTGACTTCTGTGAACCTTCCTTTGTTACTGGGAATTGCCTGGAGATTTCTCCGGATTGTTT  
TCAGTATGATCGTGTATACTGTGGGGCTGGCGTGCAGAAAGAGCATGAAGAGTACATGAAGAATCTTCTCAAAGT  
GGGAGGGATCCTTGTGATGCCACTGGAAGAGAAGTTGACTAAGATAACACGCACAGGTCCTTCAGCTTGGGAAAC  
CAAAAAGATTCTTGCTGTTTCTTTTGCTCCTCTGATCCAGCCCTGCCATTCAAGAGTCAGGAAAATCAAGACTTGT  
CCAGTTACCACCAGTGGCAGTTCGCAGCCTCCAGGACTTGGCTCGCATCGCCATCCGGGGCACCATTAAAAAGAT  
TATTCATCAGGAACTGTGAGCAAAAACGGAAACGGACTAAAGAACACCCCCAGGTTTAAACGAAGGAGAGTTTCG  
CCGCCGTGAATGGAACGATTGTCTTTTTGGACAAAGAAGTCTTTGCCAGTCGGATTTCCAACCCCTCAGATGA  
CAACAGCTGTGAAGACTTGAAGAGGAACGGAGGGAAGAAGAAGAGAAGACCCCGCCGGAACAAAGCCAGACCC  
CCCAGTGAACCTCTACGCCAGAAGTCTCTGAGCCTCCCTCTGCCAGATCCCTGAAATACTACTTGCTTTATTA  
CAGAGAAAAATTAAGCTCCTGTTTGAAGGGGGAAATAGGAAGAGCAGATTGCTGAGTGTGAAGTTCGTGCTGCC  
TGTGTGCTGTTGAAGGGTCACCTGGAGGCAGACGTTGTGGGGAAGGGAAGTGTGGGCTCATCCACACCATGGTT  
TTCTTCTAGTTCTGATTGACCTCTAAAATTCTATTAGTTGTATGATTGTTTACATAGTTCCACAAGACCTTC  
ATTGCATAGAAGATTGTTTTCCCAAAGTGGAGAGAATCTTCATAGAGAAAAAGAGAAGGCTGTTTCTTTTCGGC  
TCTGACGAAACACTGAAGTCTGCGTAAGAGAGACTGTTTGATGACCGTCCCTCATGCAACATGCACGGTACTCAC  
TAAAAATGAAAACACTGAAGTGGAACTAACCTGTGTTGCTTATAAAGTGTGAAAGCACAAGCTTATAAATGTATAA  
AATCTTTTCTGGGTGTGACGCACCTGCGTCCAAGTTTGAATTTTTATGATATGTACCACTTAATTACTGGCACTG  
AGTATCACTGAATTTCTTAGTTTTCTAGTGGGGAACATTATTGAGAAGCCCTCCCTTATTTTAAGTAAGTTGAT  
TAAATCTTATGTGAGTTGCCAGTTGTAATTTTTCAAAGGAAAAATTTTGATGGGGTGGAGGAATGAATTGCCAGA  
TAATCTTTCTGGAATTCGAGAGAATTCCAAAGAGGGTTTTTTTTTTTTTTTTTTTAGGACATCTTTTGATACCT  
TTAAAGAACCCTGTCAAGTAATCCTTAAAAAATATCTTGGAAAAGGAAACAGATTTTTCTGTGTGTAAGC  
AATAAGTGAAGTTACATTTGCCCTAACCTAGGGATGATTCTTTACCCAGTTTTAAAGCCCATCATGGTATTCTA  
AGGTGTTGACACCTCCATCCTCAGAGCAGGTGCAAAATATTAAATAGACTGGGGACTCTATGATGGGCAGCCTG  
TGCTTTTGACTTCAGTTTGCTATTTTTCTGTGATCATTAGTACTGATTCATAGATTCTATCTTTTATAATTC  
TGGAGAAAAAGATTTGTTAGTTTTGTAATTTTTTGTAAAGACCAAATGTATGTATTTTAGTAGCTCCATTGCATG  
AGAAGAGTGTAACCTCACACTGACTTGTGATATCAGCCTTCTCTGGGCCTTGTGTGTGGAGAGCTTTCTATCTTAC  
CAAGTGGTAGGGCTAAAAGAACACAGCCTTTTTGGTAGTCACATAGCAGAATGATCAGAGTTACATTGCTTATT  
CCAAAACATTGGTTCTTTTTAAACATTTTTTTTTTACCCAAAGAAAAGAATAATAGAAATTACTAACAATAAATA  
TAAATTCAGAGTGTTGATATAGGATTCAGTATCCAGAGTTTATTTTTAATCTTAATCCTCAGCTTCTTGGGAGTT  
GCTGGGCTTCAGTGTCTGTGGTTTACCAGCTTAGCTTGAGCTCTGGTTATTTTGGATCTTTTCTGCTTTTTT  
TAAGTAACTGAGTCATTTTTACCACACAGTCCAGTTTGCATGTATAGCTAGGAAACATGTATTGCTCTAGATTGG  
GCAGTTTAAAGTCATTTTAAAGAAAGTTAGTTCATAGTTGTTGCCTTTTAACTCATAGTCAAGCTTCAGTCTTTCA  
AAGAGAAATGTGTGATTTTCATTTACTTGCTGATATTTTGTAGTTTGGAGATCCTTGTGGGCATTATTCTAACTG  
ATACGTAGACACTTACTTGGAAATTTTTGGACATTATATTAAATGAGTGCTATCTGTGAAATTGGTTATATTAGG  
TGGCTTGACTAATGTTTTTCTATAATTGTATATGGACTGCATTTTTAAAAAAACCGCATTGCTTTATGCTAG  
ATTGTAAAAAATTATATTAGAATGCATAAGACATGTTTTTCTTCATATGCTAGACTTTTCTAGCATTTCGTAT  
TTCTGTGTTGTCAGTGTGTGATTTTTAAACCGGAATTTGGTTTTAAAAAAATCTGGTGGTAATATATGTGAGAAA  
TACTTTGGTGTTTACCTTATGAAAATAAAGGATTGTAAGTAAAGTTTCTGCGCACCTTATACCAGAATTCAGTA  
TAATACACTACTTTCTGTTTTCAACAGATAAATCATAATATAGTCTGTATTATCTGTAAGATCTGTCTTGTA  
CCACATTCTTGACAACATTTTGTCTTTGAGTAGTTGTATTTTAAATATGTGACTTTTGTCTTGAAAAGTAGTAA  
GCCATAGACTTGTGCAAAACAAGTTTCAAGTTTATAGATATTAAGTTTGTAAATGTGAGCATCAAATGTGTATGTA  
AAAATACTTTTTACCAGTCTGGAACCTGGGAAAATCCAGGGAATTTGAAACATAGATTTTAAATGAGCTGGTAAAC

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**FIGURE 813B**

ACAAATCATGTCAATAAAGGTAGTCAGGATATTTTATCCTTAGCATTGCTTCTGC

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**FIGURE 814**

MGGAVSAGEDNEELIDNLKEAQYIRTELVEQAFRAIDRADYYLEEFKENAYKDLAWKHGNIHLSAPCIYSEVMEA  
LDLQPGLSFLNLGSGTGYLSSMVGLILGPFVNVHGVELHSDVIEYAKQKLDFFI RTSDSFDKFDCEPSFVTGNC  
LEISPDQSQYDRVYCGAGVQKEHEEYMKNLLKVGILVMPLEEKLTKITRIGPSAWETKKILAVSFAPLIQPCHS  
ESGKSRLVQLPPVAVRSLQDLARIAIRGTIKKIIHQETVSKNGNGLKNTPRFKRRRVRRRRMETIVFLDKEVFAS  
RISNPSSDDNSCEDLEEREREEEEKTPPETKPDPPVNFRLQKVLSLPLPDPLKYLLLYREK

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**FIGURE 815**

CGAGGGCAGCGCCGGTCGGGAGCGCAGCGGGCGCAGCTCGGGCGGCACGGCGGGAGCGGGCGCGAGTGGTCGG  
GCCTGGCGGGCTGGACGGGGCGCCCCCTCGCTGCCCCGCGCGCTCCCCGCCGCCCCCATGAGCGCAGCCCCGCGCGG  
CCCGGGTCCGTAGGCGGGCGGGGCGCCCCCATGCTGCTGCAGCCCCGCGCGGTGCGCCCCGAGCGCGGGCTTCCCG  
CGGCCCCCTGGCCGCCCCCGGCGCCATGCACGGCTCGCAGAAGGACACCACGTTACCAAGATCTTCGTGGGCGGC  
CTGCCGTACCACACTACCAGCGCTCGCTCAGGAAGTACTTCGAGGGCTTCGGCGACATCGAGGAGGCCGTGGTC  
ATCACCGACCGCCAGACGGGCAAGTCCCGCGGTACGGCTTCGTGACCATGGCCGACCGGGCGGCAGCTGAGAGG  
GCTTGCAAAGACCCGAACCCCATCATCGACGGCCGCAAGGCCAACGTGAACCTGGCATATCTGGGCGCCAAGCCG  
CGGAGCCTCCAGACGGGCTTTGCCATTGGGGTGCAGCAGCTGCACCCACCTTGATCCAGCGGACTTACGGGCTG  
ACCCCGCACTACATCTACCCACCAGCCATCGTGCAGCCCAGCGTGGTGATCCCAGCCGCCCTGTCCCGTCGCTG  
TCCTCGCCCTACATTGAGTACAGCCGGCCAGCCCGGCCCTACGCCAGTACCCACCGGCCACCTATGACCAGTAC  
CCATACGCCGCTCGCCTGCCAGGCTGCCAGCTTCGTGGGCTACAGCTACCCTGCCGCCGTGCCCCAGGCCCTC  
TCAGCCGCAGCACCCGCGGGCACCACTTTCGTGCAGTACCAGGCGCCGAGCTGCAGCCTGACAGGATGCAGTGA

GGGGCGTTCTTGCCCCGAGGACTGTGGCATTGTACCTTCACAGCAGACAGAGCTGCCAGGCCATGATGGGCTGG  
CGACAGCCCCGGCTGAGCTTTAGTGAGGTGCCACCAGCACCCGTGCCTCCGAAGACCGCTCGGGCATTCCGCCTGC  
GCCCTGGGACAGCGGAGAGATGGCTTCTCTTTAATCTAGGTCCCATTTGTGTCTTGAGGGAGGACTTTAAGAATGA  
CTGAGAATAATTTAAAGACGCAATCCCAGGTTCTTGCACACCATGGCAGCCTCTTCTTGACCTTCTCCTGCCT  
CTCCACACTCCAGGTTCCCTCAGGCTTGTGTCCCCACTGCTGCATCGTGGCGGGGTGTACAGACCCTCTGCAGC  
CCCTGGCTGCCCTGGACTGTGCAGAGATGCCTGACTCCAGGGAAACCTGAAAGCAAGAAGTTAATGGAAGTGTAA  
TTGTAAGTTGATCCTCCCGAGCTGTGAGCGCAGTCTGAGGTGTGAGGACACGGCCTCCTGTTGGAGTCCCATTTT  
CTCCATCAGGGCACGTGGGCGGCTTCTCAAGCCCGGAGGAGCTCCCAGGCGCACAGGGGCCGCGGTAACAGGG  
GCCGCCGGCCAAAGGCCCTTTCCAGTCATAGCACTGAAGTTGCAACTTTTTTCTTGTAATTGTTTTGCTACTAA  
GATAATTTTCAAGAAGTTTCACTCTATTTTTTTCAGCGGATACTGCCGCCACCAAGAATCCAAAACCTATTTTTGACTT  
GGAGAGACTTGCTTTTGTGGTTCCGCCCCGTGGAGACGACGACAGTGTCTGTATAATAAAGTGTCTGCCGGCT  
CGCGGGCCAGGATCCTCTCGGTGGGATGGGCACCACAGACAGGAGGCCCTCAGGCCCGTGCGGGCCACTGTCTG  
CTGCCGCTGCCGGGGTGGCAGAGTGAGTTGTCTCAGGACCCCGTCACTGCGACGTTGACACTCTCTCCTTCTCT  
CCTTCCCCAACTCCCCAAACACTGTGGAAGGGAAGAAGGAAGTGATCCACAGCATTACAGGCCACTTGGGGTCTAG  
ACCATGGTGGTGCCAGCCTGGGGGGGGCAGTGGCCCTCAGCTCTGCCCGCTGGAGCGGTTGAGTGCAGAAGGGTG  
CGCCTCTTCCCTCTACCCCCGCACCACCTGCTGTGTGCCAGCCTGAGACGGTTCTGCCTGTCTTGGGGGTGGT  
GGAGGGTGGAGGCAGTTCTGCCAGCCGTGGCAGGGCTGCTATGGGGCATCCAGGGCTGTGGGGGTCTGGAGGAGG  
GGACATGAGGTGAGAGGTATCCTGGCCGAGGGCGGGGGGCAGCGGGGGTCTCCCTCCGGACCTACCTCAGGGAG  
CTGAGCGTGACGGCGCTCCAGGGCAGGCCTGGGACAGAGTCAAGGCTCAGAGAATAAAGGTAGCTAATCTCATCA  
TAATATTTTTATTAGAATGTTCTGATGATAAAAATAAACTTGTTTTCTTT

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**FIGURE 816**

MHGSQKDTTFTKIFVGGLPYHTTDASLRKYFEGFGDIEEAVVITDRQTGKSRGYGFVTMADRAAAERACKDPNFI  
IDGRKANVNLAYLGAKPRSLQTGFAIGVQQLHPTLIQRTYGLTPHYIYPPAIVQPSVVIPAAPVPSLSSPYIEYT  
PASPAYAQYPPATYDQYPYAASPATAASFVGYSYPAAVPQALSAAAPAGTTTFVQYQAPQLQPDRMQ

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**FIGURE 817**

GAGCCCAGCCGAGCGTCCGCCGCTGCCCGTGCGCCTCTGCGCTCCGCGCCATGGCCGGCCTCAACTCCCTGGAGG  
CGGTGAAACGCAAGATCCAGGCCCTGCAGCAGCAGGCGGACGAGGCGGAAGACCGCGCGCAGGGCCTGCAGCGGG  
AGCTGGACGGCGAGCGCGAGCGGCGGAGAAAGCTGAAGGTGATGTGGCCGCCCTCAACCGACGCATCCAGCTCG  
TTGAGGAGGAGTTGGACAGGGCTCAGGAACGACTGGCCACGGCCCTGCAGAAGCTGGAGGAGGCAGAAAAAGCTG  
CAGATGAGAGTGAGAGAGGAATGAAGGTGATAGAAAACCGGGCCATGAAGGATGAGGAGAAGATGGAGATTCAGG  
AGATGCAGCTCAAAGAGGCCAAGCACATTGCGGAAGAGGCTGACCGCAAATACGAGGAGGTAGCTCGTAAGCTGG  
TCATCCTGGAGGGTGAGCTGGAGAGGGCAGAGGAGCGTGCGGAGGTGTCTGAACTAAAATGTGGTGACCTGGAAG  
AAGAACTCAAGAATGTTACTAACAATCTGAAATCTCTGGAGGCTGCATCTGAAAAGTATTCTGAAAAGGAGGACA  
AATATGAAGAAGAAATTAACTTCTGTCTGACAACTGAAAGAGGCTGAGACCCGTGCTGAATTTGCAGAGAGAA  
CGGTTGCAAACTGGAAAAGACAATTGATGACCTGGAAGAGAACTTGCCCAGGCCAAAGAAGAGAACGTGGGCT  
TACATCAGACACTGGATCAGACACTAAACGAACCTTAAGTGTATTAAGCAAAAACAGAAGAGTCTTGTTCACACAG  
AAACTCTGGAGCTCCGTGGGTCTTTCTCTTCTTGTGAAGAAGTTCCTTTTGTATTGCCATCTTCGCTTTGCTG  
GAAATGTCAAGCAAATTATGAATACATGACCAAATATTTTGTATCGGAGAAGCTTTGAGCACCAGTTAAATCTCA  
TTCCTTCCCTTTTTTTTTTCAAATGGCACCAGCTTTTTCAGCTCTCTTATTTTTTCCCTTAAGTAGCATTTATTCCT  
AAGGTAGGCAGGGTATTTTCTAGTAAGCATACTTTCTTAAGACGGAGGCCATTTGGTTCCTGGGAGAATAGGCAG  
CCCCACACTTTGAAGAATACAGACCCCAGTATCTAGTCGTGGATATAATTAAAACGCTGAAGACCATAACCTTTT  
GGGTCAACTGTTGGTCAAACATATAGGAGAGACCAGGGACCATCACATGGGTAGGGATTTTCCATCCAGAGCCAAT  
AAAAGGACTGGTGGGGGCCGGGGTGGCTATTGTGGGAAGTCATAACCCACAGATAGATCAACCTAAGAATCCTG  
GCCTTCTCCACTCTCCACCATGCAGGACAAACATCTTCTCAAGCAGTCAACGTAGAATGCTTGGGAAATAGTCA  
TAATTACCCACATATAGTAATTAATAGATGGTAATTAATTGATCCTTGATGTGATGTTCTTTTGCATATTTCTT  
CATTCTAAAGTTGTTCCCTGGCCGGGAGCGTTTGCTTTTCGCCTGTAATCCCAACACTTTGGGAGGCCAGGACAGA  
TCACTTGAGGTGAGGAGTTCGAGACCAGCCCAGCCAACATGGCGAAACCATGTCTCTACTAAAAATACAAAAATT  
ATGGTGACGCCTGCCTGTAGTCCAGCTACTCGGGAGGCTGAGGCAGGAGGATCGCTTGAACCCAGGAAGTGGAG  
ACTGCAGTGAGCCGATATCGCACCACAGCGCTCCAGCCTGGTCGACAGAGTGAGACTCCATCTCAAGAAAAATA  
AAAAATAAGTTGTTCTCTGAAGAGCAAATGTCTCATTCCAGTAATGACCCACTCAGCAGGAATATGGTGGAGTTC  
AGTCCAATTCAGGTGAGCCATATCCAAAAGACCACAAGTCATTACTAAGTTGAGCAAAAGAGTTTTTATCTATTA  
GCAGAAAGGGCCTCTCTGGCAGCAGAGATTAAAACTGGCCCAACTTCATTTCATACTTCAGGGAACAGCAAAT  
TGAGGATTTACTTATCTAGGACTT

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**FIGURE 818**

MAGLNSLEAVKRKIQALQQQADEAEDRAQGLQRELDGERERREKAEGDVAALNRRIQLVEEELDRAQERLATALQ  
KLEEAEKAADESERGMKVNIENRAMKDEEKMEIQEMQLKEAKHIAEEADRKYEEVARKLVILEGELERAEEAEVS  
ELKCGDLEEELKNVTNNLKSLEAASEKYSEKEDKYEEEIKLLSDKLKEAETRAEFAERTVAKLEKTIDDLEEKLA  
QAKEENVGLHQTLDQTLNELNCI

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**FIGURE 819A**

CGGCACCGTCGTAGGTGCGGGCCGCATGAATGGAGCGCCGGCGTAAGGCAAAGCCTGGCACCGTCTGCGCGGCC  
GCTATCTGCTCCCGGAGCGTGAGTGCGGGGTGTGGGGCGTGCGCGTGCAGAGGGGGCTCAAGGCGAGCG  
CGCCGGGCAGTTGCGGGCGCGTGGCTGCTGAGGTTGGCGGCGGTGCCGCGCGCCGACGGGCCGGTGGTTGCGGG  
GCCTCCCGCCTCGACCCGGGCTGGGGGCGAGCCGTGGCGGGCGCCGGGGACCGCAAGGGGCGGAGGAAAGGAGGGG  
GCCGGTCCCGGCACGCAGAGGAGCAGCCGACC**ATG**CCCCGAGACAACATGGCCTCCTTGATCCAACGGATCGCCC  
GCCAGGCTTGCTCACCTTCCGGGGCAGCGGGGGCGGCCGCGCGCTTCCGATCGCGACGCGGCTTCTGGCGCGG  
AGGCGCCGATGCAGCCGGGCTTCCCCGAGAACCTGAGCAAGCTGAAGAGCCTCCTGACCCAGCTCCGCGCCGAGG  
ACTTGAACATCGCCCCGCGCAAGGCCACACTGCAGCCGCTGCCGCCAACCTGCCGCCAGTCACCTACATGCACA  
TCTACGAGACGGACGGCTTCAGCCTGGGCGTGTTCTGCTCAAGAGCGGCACGTCCATCCCGCTGCACGACCACC  
CGGGCATGCACGGCATGCTCAAGGTGCTGTACGGCACCGTGCGCATCAGCTGCATGGACAAGCTAGACGCGGGCG  
GCGGGCAACGGCCGCGGGGCTTGCCGCCCGAGCAGCAGTTGAGCCGCCGCTGCAGCCCCGGGAGCGAGAAGCCG  
TGCGGCCGGGCGTGCTGCGTTGCGGGGCCGAGTACACCGAGGCCAGCGGCCCTGCATCCTCACACCGCACCGGG  
ACAACCTGCACCAGATCGACGCCGTGGAAGGGCCTGCCGCCCTTCTGGACATCCTGGCCCCGCCCTACGACCCGG  
ACGATGGCCGGGACTGCCACTATTACCGGGTGCTGGAGCCGGTCAGGCCCAAGGAGGCCTCCAGCTCGGCCTGTG  
ACCTGCCTCGAGAGGTGTGGCTCCTGGAGACCCACAGGCCGATGACTTCTGGTGCGAGGGAGAACCCTATCCAG  
GTCCAAGGTCTTCCCT**TGA**AGCCACTGGCGCCAGGAGCGGTGGGCCGAAGACGTGCCCTACCCTACCACAAGG  
GCTGTGCTCTACCCCTAGCCTGGGCGTTGGATCTACTGGAATGAGCAGCAGCCGCTTCTCGGCAGCCTTGGG  
AAGCACGGGCGACTGGACAGCAGCCGCCGGGCACGGTTATGGGGGCGGGGTGGGCGGGGAGGCTAGATTGTTTCC  
TGGTACTGTCACTGCCACTGGGGCTTTGATTTGGAGGAATGGGGCAGGGGACTATCTGAAGCGCTTCCATCCTAA  
AGCCATAATGAAAATATCTTCTCTCTTCCCCATTCTATACAAAATACTAAGTGGTTTTCTTGCTCCCCTCCCT  
ACCCCTTAGTTAAATAGGGTTTATTTTCCACTCATGCCCTTATGCCTTTTTTTCTTATAGTTTTTTAACTTATTG  
ACTGTGCATGACCCAGTGGTTTGAATTGTTTTTAGTTCAAGTCATTGGTAAAACTAGGTTTAAAGGAGATGAGCT  
ACTGTTTAAAGTGAGCTGGCCTGCCTAATTAATTCTTGTGAAAATAAATGATTTTTTTCAGTTTGGGGATCATT  
CTCACAACTAATACTATGCATGTAGAGGACAAGATTTATTTTCTTTTCTCCCTTTGCCAGTAGCCACATCTGGTT  
TACTCAGGCAGCATCTACTAAGAAATTCAGCACCTGCATATCTCTGTGACATGGTCACTTAGAGCTTATCTTCCC  
TATGAATCTCCAGATCTGTGAGTCGAGCAGATTTTATGTTGCAGATTCACCTTTAATGCAAAGACTGTATTATCC  
TCACATGACTTTTTTTCTTGCTTACTGTACCTTAAAAGGTGATAGAGTAATCTGTATTTTTCTAACGGGAAGAT  
TCAAAGGAGCTGAATGTGTTATGCTTCAAACAACCTGAATGTAAAACACTCCTAGCCAGTTGTTGCATTCCCTAT  
ATTTATTTACTTCCAATATTTTACTGTAAAAGTAGGGAGAAATATTATGTTGATAGTTGTTTCATATTCTCTCAG  
GAACCTTAAATGTTCCCGACTCGGGTGATTCCAGCTGTGTTGCTGGCAGTGTTGTCTCAACCCTCTCCCTAAAATG  
ACTGAGCCCTGGGTTTCTAATGTGGTTTTCTTAGGAAGAGATAGAAGGCACAGAAGATCACAGCTAGAGAAT  
TGAGAATTAATACTACTAGCCATTTTAGGGCACAAAACCTGGGATTAAACACTTCTACTTCCCCTCCCA  
ACTCCTGAAATGAAGTCTTGCTATCTGTGACTAGTTTTATTTTGTGCTTTTAAATAGTCCGAGCAGCTTACCTT  
GTTTACACATGTATTGACACCATTTGCTTCAGGCCATGGAGCACTGTTTCTCCCTTTTTACTATTTATAGGATTC  
CGTTTTTTCACAAGACTTTTAAATAAAAAGAAATTGTAGAAATAAACACATTAAATTTGCCAGCTGTCGTCTAA  
GCCCTCTTGATTGACTTGCCCAAGTGGCAATAGAGTTCTAATATCTATAATAAAGGGAGATTGTCTATTATTAGT  
GGAATGTTGACCCCGTATGTAGAGAAACAGTACGTGCCTTTGCCTCTTTATGCACACAGAGACCCAGGGTGAGGG  
AGTATTTGTTCCAGTTTTTAAAGATAGTATAAAAAAGCAAATACTTGGTGAGTGATTTAAAAATAAAACCAAAC  
AAAAACAAAAAGATATTCCACAGGACATGCCACTTTATTATAAAACCTGACACAGGCATAGTACCAAGTATTTT  
CTGCATTGTTGCTAAAATTGTTTTATTGTAGCTCCACATTCTGGTGATGTTTAAATGCCTTTGGGGGCGAGTTTG  
AAGCAGTTCTTCATGCCACTTAGTTTGAATAAAAATTCTAGATATGCAAATGATTTTCTTAGAAAACCTTCACAA  
AATAAAAGATCTTGTTTTTTTTTCCATAGCACAGTAATGAATGTGGTTATCAATCACATACTTTTTTGGATTATA  
TTGTAGCAAAAAGTTGATTAGCTTACCAAGATTATTAATAGCAATGTATGTGTTATAATACTTAGTACATTA  
AAGCTACGAAAACCTATCCTGGCTGTAGGATAGTAATAAAGGAAGATTATGACTTCATTATGAAAAAAGAAGT  
TTTAAAGTTTTCAATTACGAGCAATTTGGAAGAAAAAACCTAAGGTGCTTTTCAAAGAGTAAGTGAATTTGTTG  
CAGGCCAAAACAGCAATATGATATCTCAGATTTAGTTCAATAAGAACAGTGAAACTTTTGGTTCACTAATAAATT  
CTGAGTAAATTAGTGGTGAAGACAAAATATAACTTGTTTTAGTGAGCCACTGAGGAAAGAATATGCTTATTACAA  
AGACAAAATGTGGTGAGAACTATCTTGACCTGTGTGCATAAACTGTTAGTCGTGACTGACTTGGTGTGTTGC



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**FIGURE 819B**

TATTGTGTTTCTATATACTCCGTCCAATATAGATAATGTTTTAATAACAACGTGTTGGGATAAAAGTTATCTTCCCC  
TTGGAAAGACTAATGAGCACAATGATATTAATCACTTTTATGGTGAATAATAAATGCAATAATTGCCTCATGGGT  
GAGAAATTGTCTGTCC

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**FIGURE 820**

MPRDNMASLIQRIARQACLTRGSGGGRGASDRDAASGAEAPMQPGFPENLSKLKSLLTQLRAEDLNIAPRKATL  
QPLPPNLPPVTYMHYETDGFSLGVFLLKSGTSLPLHDHPGMHGMLKVLYGTVRISCMDKLDAGGGQRPRALPPE  
QQFEPPLQPREREAVRPGVLRRAEYTEASGPCILTPHRDNLHQIDAVEGPAAFLDILAPPYDPDDGRDCHYYRV  
LEPVRPKEASSACDLPREVLLETTPQADDFWCEGEPYPGPKVFP

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**FIGURE 821**

GGGGGAGAGGGGGCTCAAGGCGAGCGCGCCGGGCAGTTGCGGGCGCGTGCTGCTGAGGTTGGCGGCGGTGCCGC  
GCGCCCCGACGGGGCCGGTGGTTGCGGGGCTCCCGCCTCGACCCGGGCTGGGGGCAGCCGTGGCGGCCGCCGGGGA  
CCGCAAGGGGCGGAGGAAAGGAGGGGGCCGGTCCCGGCACGCAGAGGAGCAGCCGACCATGCCCGAGACAACAT  
GGCCTCCTTGATCCAACGGATCGCCGCCAGGCTTGCTCACCTTCCGGGGCAGCTGGGGCGGCCGCGGCGCTTC  
CGATCGCGACGCGGCTTCTGGCGCGGAGGCGCCG**ATG**CAGCCGGGCTTCCCCGAGAACCTGAGCAAGCTGAAGAG  
CCTCCTGACCCAGCTCCGCGCCGAGGACTTGAACATCGCCCCGCGCAAGGCCACACTGCAGCCGCTGCCGCCAA  
CCTGCCGCCAGTCACCTACATGCACATCTACGAGACGGACGGCTTCAGCCTGGGCGTGTTCCTGCTCAAGAGCGG  
CACGTCCATCCCGCTGCACGACCACCCGGGCATGCACGGCATGCTCAAGGTGCTGTACGGCACCGTGCGCATCAG  
CTGCATGGACAAGCTAGACGCGGGCGGCGGGCAACGGCCGCGGGCCTTGCCGCCCGAGCAGAGTTTCGAGCCGCC  
GCTGCAGCCCCGGGAGCGAGAAGCCGTGCGGCCGGGCGTGCTGCGTTCGCGGGCCGAGTACACCGAGGCCAGCGG  
CCCCCTGCATCCTCACACCGCACCGGGACAACCTGCACCAGATCGACGCCGTGGAAGGGCCTGCCGCCTTCCTGGA  
CATCCTGGCCCCGCCCTACGACCCGGACGATGGCCGGGACTGCCACTATTACCGGTGCTGGAGCCGGTCAGGCC  
CAAGGAGGCCCTCAGCTCGGCCTGTGACCTGCCTCGAGAGGTGTGGCTCCTGGAGACCCACAGGCCGATGACTT  
CTGGTGCGAGGGAGAACCCTATCCAGGTCCCAAGGTCTTCCCT**TGA**AGCCACTGGCGCCCAGGAGCGGTGGGCCG  
AAGACGTGCCCTACCCTACCACAAGGGCTGTGTCTCTACCCCTAGCCTGGGCGTTGGATCTACTGGAATGAGCA  
GCAGCCGCTTCCTCGGCAGCCTTGGAAGCACGGGCGACTGGACAGCAGCCGCCGGGCACGGTTATGGGGCGGG  
GTGGGCGGGGAGGCTAGATTGTTTCTGGTACTGTCACTGCCACTGGGGCTTTGATTTGGAGGAATGGGGCAGGG  
GACTATCTGAAGCGCTTCCATCCTAAAGCCATAATGAAAATATCTTCTCTTCCCCATTCTATACAAAATACT  
AAGTGGTTTTCTTGCTCCCACTCCCTACCCCTTAGTTAAATAGGGTTTATTTTCCACTCATGCCCTTATGCCTTT  
TTTTCTTATAGTTTTTTAACTTATTGACTGTGCATGACCCAGTGGTTTGAATTGTTTTTAGTTCAAGTCATTGGT  
AAAACTAGGTTTAAAGGAGATGAGCTACTGTTTAAAGTGAGCTGGCCTGCCTAATTAATTCCTTGTGAAAATAA  
ATGATTTTTTTCAGTTTGGGGATCATTCTCACAACTAATACTATGCATGTAGAGGACAAGATTTATTTTCTTTCCTC  
CCTTTGCCCAGTAGCCACATCTGGTTTACTCAGGCAGCATCTACTAAGAAATTCAGCACCTGCATATCTCTGTGA  
CATGGTCACTTAGAGCTTATCTTCCCTATGAATCTCCAGATCTGTGAGTCGAGCAGATTTTCATGTTGCAGATTCA  
CCTTTAATGCAAAGACTGTATTATCCTCACATGACTTTTTTTCTTGCTTACTGTACCTTAAAGGTGATAGAGT  
AATTCTGTATTTTCTAACGGGAAGATTCAAAGGAGCTGAATGTGTTATGCTTCCAAACAACCTGAATGTAAACAC  
TCCTAGCCAGTTGTTGCATTCCCTATATTTATTTACTTCCAATATTTTACTGTAAAAGTAGGGAGAAATATTATG  
TTGATAGTTGTTTCATATTCTCTCAGGAACCTTAAATGTTCCCGACTCGGGTGATTCCAGCTGTGTTGCTGGCAGT  
GTTGTCTCAACCCTCTCCCTAAAATGACTGAGCCCTGGGTTCTATCTAATGTGGTTTTCTTAGGAAGAGATAGAA  
GGCACAGAAGATCACAGCTAGAGAATTGAGAATTAATACTACTAGCCATTTTAGGGCACCAAACTTGGGAT  
TAAACACTTCCTACTTCCCACTCCCACTCCTGAAATGAAGTCTTGCTATCTGTGACTAGTTTTATTTTTGTGCT  
TTAATAGTCCGAGCAGTCTTACCTTGTTTACACATGTATTGACACCATTGCTTCAGGCCATGGAGCACTGTTT  
CTCCCTTTTTTACTATTTATAGGATTCCGTTTTTTCACAAGACTTTAATAAAAAGAAATTGTAGAAATAAACAC  
ATTAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 822**

MQPGFPENLSKLKSLLTQLRAEDLNIAPRKATLQPLPPNLPPVTYMHYETDGFSLGVFLLKSGTSLPLHDHPGM  
HGMLKVLYGTVRISCMDKLDAGGGQRPRALPPEQQFEPPLQPREREAVRPGVLRRAEYTEASGPCILTPHRDNL  
HQIDAVEGPAAFLDILAPPYDPDDGRDCHYYRVLEPVRPKEASSACDLPREVWLLETPQADDFWCEGEPYPGPK  
VFP

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**FIGURE 823**

ATGCCCCCTAGGTCTCCTGTGGCTGGGCCTAGCCCTGTTGGGGGCTCTGCATGCCCAGGCCCAGGACTCCACCTCA  
GACCTGATCCCAGCCCCACCTCTGAGCAAGGTCCCTCTGCAGCAGAACTTCCAGGACAACCAATTCCAGGGGAAG  
TGGTATGTGGTAGGCCTGGCAGGGAATGCAATTCTCAGAGAAGACAAAGACCCGCAAAAGATGTATGCCACCATC  
TATGAGCTGAAAGAAGACAAGAGCTACAATGTCACCTCCGTCTGTTTAGGAAAAAGAAGTGTGACTACTGGATC  
AGGACTTTTGTTCAGGTTGCCAGCCCGGCGAGTTCACGCTGGGCAACATTAAGAGTTACCCTGGATTAAACGAGT  
TACCTCGTCCGAGTGGTGAGCACCAACTACAACCAGCATGCTATGGTGTCTTCAAGAAAGTTTCTCAAAACAGG  
GAGTACTTCAAGATCACCTCTACGGGAGAACCAAGGAGCTGACTTCGGAACTAAAGGAGAAGTTTCATCCGCTTC  
TCCAAATATCTGGGCCTCCCTGAAAACCATATCGTCTTCCCTGTCCAATCGACCAGTGTATCGACGGCTTGA

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**FIGURE 824**

MPLGLLWLGLALLGALHAQAQDSTSDLIPAPPLSKVPLQQNFQDNQFQGKQWYVVGLAGNAILREDKDPQKMYATI  
YELKEDKSYNVTSVLFRKKKCDYWIRTFVPGCQPGFTLGNIKSYFGLTSYLVRVSTNYNQHAMVFFKKVSQNR  
EYFKITLYGRTELKELTSELKENFIRFSKYLGLPENHIVFPVPIDQCIDG

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**FIGURE 825**

CACCGTCCGCAGCCCCGAGCGCCCCGGAGCCGCAGGCGCCGCCGCGCAGAGACGCCGCGGCTGCGACTAGGCGCGC  
CCAGCCGCACGTGGCGGACCCGCCCCAGGCCCGCAGTGTCTTGACCCCGCAGGCCTCCGCTCTCCTGTCTCTG  
GCCCCGTCCCCAGGGCCGCGATGAGCTTCTGAGCCGACAGCAGCCGCCGCCACCCGCGCGCCGGGGCGGCCT  
GCACCTTGCGGCAGAAAGCTGATCTTCTCGCCCTGCAGCGACTGTGAGGAGGAGGAAGAAGAGGAGGAGGAGGAGG  
GCAGCGGCCACAGCACCGGGGAGGACTCGGCCTTTCAAGAGCCCGACTCGCCGCTGCCGCCCGAGCGGAGCCCCA  
CGGAGCCCCGGGCCCGAGCGCCCGCTCGCCCGGGCCGGCCCCCGCAGCCCCGGCGAGCTGGAGGAGGACCTGT  
TGCTGCCCGGCGCCTGCCCGGGCGCGGACGAGGCGGGCGGTGGGGCGGAGGGCGACTCGTGGGAGGAGGAGGGCT  
TCGGCTCCTCGTCGCCGGTCAAGTCGCCGGCGGGCCCCCTACTTCTGGGTAGCTCTTTCTCGCCGGTGCGCTGCG  
GCGGCCCCAGGAGATGCGTCGCCGCGGGGTTGCGGGGCGCGCCGGGCGGGCGAAGGCCGCCGCTCGCCGCGGGCCG  
ACCACCCGGGCACCCCGCCACACAAGACCTTCCGCAAGCTGCGACTCTTCGACACCCCGCACACGCCCAAGAGTT  
TGCTCTCCAAAGCTCGGGGAATTGATTCCAGCTCTGTTAAACTCCGGGGTAGTTCTCTCTTTCATGGATACAGAAA  
AATCAGGAAAAAGGGAATTTGATGTGCGACAGACTCCTCAAGTGAATATTAATCCTTTTACTCCGGATTCTTTGT  
TGCTTCATTCTCAGGACAGTGTCTGTCGTAGAAAAGAGAACGTATTGGAATGATTCTGTGGTGAAGACATGGAAG  
CCAGTGATTATGAGCTTGAAGATGAAACAAGACCTGCTAAGAGAATTACAATTACTGAAAGCAATATGAAGTCCC  
GGTATACAACAGAAATTTTCATGAGCTAGAGAAAATCGGCTCTGGAGAATTTGGTTCTGTATTTAAGTGTGTGAAGA  
GGCTGGATGGATGCATTTATGCCATTAAGCGATCAAAAAAGCCATTGGCGGGCTCTGTTGATGAGCAGAACGCTT  
TGAGAGAAGTATATGCTCATGCAGTGTGGACAGCATTCTCATGTAGTTCGATATTTCTCTGCGTGGGCAGAAG  
ATGATCATATGCTTATACAGAATGAATATTGTAATGGTGGAAGTTTAGCTGATGCTATAAGTGAAACTACAGAA  
TCATGAGTTACTTTAAAGAAGCAGAGTTGAAGGATCTCCTTTTGCAAGTTGGCCGAGGCTTGAGGTATATTCATT  
CAATGTCTTTGGTTCACATGGATATAAAACCTAGTAATATTTTCATATCTCGAACCTCAATCCCAAATGCTGCCT  
CTGAAGAAGGAGACGAAGATGATTGGGCATCCAACAAAGTTATGTTTAAATAGGTGATCTTGGGCATGTAACAA  
GGATCTCCAGTCCACAAGTTGAGGAGGGCGATAGTCGTTTCTTGCAAATGAAGTTTACAGGAGAATTATACCC  
ATCTACCAAAAAGCAGATATTTTTGCGCTTGCCCTCACAGTGGTATGTGCTGCTGGTGTGAACCTCTTCCGAGAA  
ATGGAGATCAATGGCATGAAATCAGACAGGGTAGATTACCTCGGATACCACAAGTGCTTTCCCAAGAATTTACAG  
AGTTGCTAAAAAGTTATGATTATCCAGATCCAGAGAGAAGACCTTCAGCAATGGCACTGGTAAAGCATTACAGTAT  
TGCTGTCCGCTTCTAGAAAGAGTGCAGAACAATTACGAATAGAATTGAATGCCGAAAAGTTCAAAAATTCACTTT  
TACAAAAAGAACTCAAGAAAGCACAGATGGCAAAAGCTGCAGCTGAGGAAAGAGCACTCTTCACTGACCGGATGG  
CCACTAGGTCCACCACCCAGAGTAATAGAACATCTCGACTTATTGGAAAAGAAAATGAACCGCTCTGTACAGCTTA  
CTATATACTGAGCTACTCCTTTCCACCTCCCCCTGAACACTGTGACAAGAGGAAGCTAGGTTGAAATCACTGAT  
AGAATCCAGTTTGCAATTACTTTCTCGATTGGTGTGAGTAGTTTTACTGATTAGGACTTTTATTGTGAATTACAG  
TTGAAAGCTGTATTTTGATGATTGCTATGTGAGGCTTTCATCTAATCTTACCAGTCTGTCTTCTGTAGGATGTGT  
CACTGTTGGATGTTACACCAGCCTTTCAGGGTTAACCCTGTGGTGGTGTGCTGCTTATAGTTTGCTGTTGCAT  
TGTAATAAAAGGTGTCTTTCCCTGTAGTGACCTGTAAAAAGTACTCAAGGGCTTTATTACAGACATACCCTCCCT  
TTGAAAAGGGACATGCTAAAAGACTCATTACTACTCAGCCTTCAATGTACCTGTGTGTCCATCTTATATTTCTTT  
TTTTTTTAATTGTGAATTAGACTTGTATATCCCACTGGGAGCACTTTGTAGGCATTGCATGAACCATGGGATGAT  
GATTCTGTGGAGGTATTGCCCTGTGAATTTGCTGCTATTTTAGTTTTGTCTTTGCTGTAACTTGTAGCATTAAA  
CAATCATTGTTGTTAATAGGTCTTCTTTTTGAAACAATTATGTGAAATGTATAGCTGCTTTTGATGGAAAGCAGC  
TATTTGCCTTTTTTTTTTCCCTTTGAACTTTGAAGCTAGTGCAATTGGAAAAATGCACCCTTCCCTCCTTTGGAA  
TGCTGTATTAATGTAGTATAATAATTACTGGTTTTGTAACCTGTTCTGGTAATGTCCTTCCCGGACTCTTTTTAA  
ATGTCTCCCCCTAAGTTTTATACTTGATTGTATTATTAGTCTGTTTTAAATGTTTTGCCCGGTTTTTCTCTTCA  
ATATTTGTGTATATAAACCGATCTTCGTGATACTGTACATAGCTGTTTGAAATGCCAGAATGACTTCTGACATTC  
CAAGTTTTTTCACAAAATATATTTTATCTGTGATTAGCCATTTGACTAATAATACTGGCTAACAGATGTTGAAAA  
AATTGTCTGTTTTCTCATTATTTTGGTCTAAAACATGTTTGCACCTGTCTTTGACTTGTGTTTTATTAAACATTG  
ATTGGCATATTAAAAGTCACTCTGAGCTT

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**FIGURE 826**

MSFLSRQQPPPPRRAGAACTLRQKLIFSPCSDCEEEEEEEEEEGSGHSTGEDSAFQEPDSPLPPERSPTTEPGPER  
RRSPGPAPGSPGELEEDLLLPACPGADEAGGGAEGDSWEEEGFGSSSPVKSPAAPYFLGSSFSPVRCGGPGDAS  
PRGCGARRAGEGRRSPRDPHGTTPHKTFRKLRLFDTPHTPKSLLSKARGIDSSSVKLRGSSLFMDTEKSGKREF  
DVRQTPQVNINPFTPDSLLHSSGQCRRRKRTYWNDSCGEDMEASDYELEDETRPAKRITITESNMKSRYTTEFH  
ELEKIGSGEFGSVFKCVKRLDGCIIYAIKRSKKPLAGSVDEQNALREVIYAHAVLGQSHVVRYSAWAEDDHMLIQ  
NEYCNGGSLADAISENYRIMSYFKEAELKDLLQVGRGLRYIHMSLVHMDIKPSNIFISRTSIPNAASEEGDED  
DWASNKVMFKIGDLGHVTRISSPQVEEGDSRFLANEVLQENYTHLPKADIFALALTVVCAAGAEPLPRNGDQWHE  
IRQGRLPRIPQVLSQEFTELLKVMIHDPERRPSAMALVKHSVLLSASRKSAEQLRIELNAEKFKNSLLQKELKK  
AQMAKAAAEERALFTDRMATRSTTQSNRTSRLIGKKMNRSVSLTIY



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**FIGURE 827A**

TTGCTGCGTCAACTGTGTTCCCTTTGGCCTGGCTGAGTTTGATACTGTGGGGATTTCAGTTTAGGCGCTGGCCCGA  
GGATATCCACGCGGTGGTACTTCGGAGACACCTGTCTGCATCTGACTGAGCCGGCTCTCCTGGCCTCGCGCTGCA  
CATTCTCTCCTGGCGGCGGCCACCTGCAGTAGCGTTTCGCCCCGAACATGGCGACACGGAGCAGCAGGAGGGAGT  
CGCGACTCCCGTTTCTATTACCCCTGGTTCGACTGCTGCCGCCCGGAGCTCTCTGCGAAGTCTGGACGCAGAGGC  
TGCACGGCGGCGAGCGCGCCCTTGCCCCAGGACCGGGGCTTCCTCGTGGTGCAGGGCGACCCGCGCGAGCTGCGGC  
TGTGGGCGCGCGGGGATGCCAGGGGGGCGAGCCGCGCGGACGAGAAGCCGCTCCGGAGGAAACGGAGCGCTGCC  
TGCAGCCCCGAGCCCATCAAGGTGTACGGACAGGTTAGTCTGAATGATTCCACAATCAGATGGTGGTGCAGTGGG  
CTGGAGAGAAAAGCAACGTGATCGTGGCCTTTGGCCCGAGATAGCCTGGCATTGGCGAGGCCCAAGAGCAGTGATG  
TGTACGTGTCTTACGACTATGGAAAATCATTCAAGAAAATTTTCAGACAAGTTAACTTTGGCTTTGGGAAATAGGA  
GTGAAGCTGTTATCGCCAGTTCTACCACAGCCCTGCGGACAACAAGCGGTACATCTTTGCAGACGCTTATGCCC  
AGTACCTCTGGATCACGTTTGACTTCTGCAACACTCTTCAAGGCTTTTCCATCCCATTTGCGGCAGCTGATCTCC  
TCTACACAGTAAGGCCTCCAACCTTCTCTTTGGGCTTTGACAGGTCCCACCCCAACAAGCAGCTGTGGAAGTCAG  
ATGACTTTGGCCAGACCTGGATCATGATTAGGAACATGTCAAGTCTTTTCTTTGGGGAATTGATCCCTATGACA  
AACCAAATACCATCTACATTGAACGACACGAACCTCTGGCTACTCCACTGTCTTCCGAAGTACAGATTTCTTCC  
AGTCCCGGAAAACAGGAAGTGATCCTTGAGGAAGTGAGAGATTTTCAGCTTCGGGACAAGTACATGTTTGCTA  
CAAAGTGGTGCATCTCTTTGGGCAGTGAACAGCAGTCTTCTGTCCAGCTCTGGGTCTCCTTTGGCCGGAAGCCCCA  
TGAGAGCAGCCAGTTTGTGACAAGACATCCTATTAATGAATATTACATCGCAGATGCCTCCGAGGACCAGGTGT  
TTGTGTGTGTCAGCCACAGTAACAACCGCACCAATTTATACATCTCAGAGGCAGAGGGGCTGAAGTTCTCCCTGT  
CCTTGAGAACGTGCTCTATTACAGCCAGGAGGGGCGGCAGTGACACCTTGGTGAGGTATTTTGCAAATGAAC  
CATTGCTGACTTCCACCGAGTGGAAGGATTGCAAGGAGTCTACATTGCTACTCTGATTAATGGTTCTATGAATG  
AGGAGAACATGAGATCGGTATCACCTTTGACAAAGGGGGAACCTGGGAGTTTCTTCAGGCTCCAGCCTTCACGG  
GATATGGAGAGAAAATCAATTGTGAGCTTTCCAGGGCTGTTCCTTCATCTGGCTCAGCGCCTCAGTCAGCTCC  
TCAACCTCCAGCTCCGAGAAATGCCATCCTGTCCAAGGAGTCGGCTCCAGGCCTCATCATCGCCACTGGCTCAG  
TGGGAAAGAACTTGGCTAGCAAGACAAACGTGTACATCTCTAGCAGTGCTGGAGCCAGGTGGCGAGAGGCACTTC  
CTGGACCTCACTACTACATGAGGAGACCACGGCGGAATCATCACGGCCATTGCCAGGGCATGGAAACCAACG  
AGCTAAAATACAGTACCAATGAAGGGGAGACCTGGAAAACATTCTCTCTGAGAAGCCAGTGTTTGTGTATG  
GCCTCCTCACAGAACCTGGGGAGAAGAGCACTGTCTTACCATCTTTGGCTCGAACAAGAGAATGTCCACAGCT  
GGCTGATCCTCCAGGTCAATGCCACGGATGCCTTGGGAGTTCCCTGCACAGAGAATGACTACAAGCTGTGGTCAC  
CATCTGATGAGCGGGGAATGAGTGTTTGGTGGGACACAAGACTGTTTTCAAACGGCGGACCCCCCATGCCACAT  
GCTTCAATGGAGAGGACTTTGACAGGCCGGTGGTTCGTGTCCAAGTCTCTGCACCCGGGAGGACTATGAGTGTG  
ACTTCGGTTTCAAGATGAGTGAAGATTTGTGATTAGAGGTTTGTGTTCCAGATCCGGAATTTTCTGGAAAGTCAT  
ACTCCCCTCCTGTGCCTTGCCCTGTGGGTTCTACTTACAGGAGAACGAGAGGCTACCGGAAGATTTCTGGGGACA  
CTGTAGCGGAGGAGATGTTGAAGCGCGACTGGAAGGAGAGCTGGTCCCTGTCCCCTGGCAGAAGAGAACGAGT  
TCATTCTGTATGCTGTGAGGAAATCCATCTACCGCTATGACCTGGCCTCGGGAGCCACCGAGCAGTTGCCTCTCA  
CCGGGTACGGGCAGCAGTGGCCCTGGACTTTGACTATGAGCACAACTGTTTGTATTGGTCCGACCTGGCCTTGG  
ACGTCATCCAGCGCCTCTGTTTGAATGGAAGCACAGGGCAAGAGGTGATCATCAATTCTGGCCTGGAGACAGTAG  
AAGCTTTGGCTTTTGAACCCCTCAGCCAGCTGCTTTACTGGGTAGATGCAGGCTTCAAAAAGATTGAGGTAGCTA  
ATCCAGATGGCGACTTCCGACTCACAATCGTCAATTCTCTGTGCTTGATCGTCCCAGGGCTCTGGTCTCTCGTGC  
CCCAAGAGGGGGTGATGTTCTGGACAGACTGGGGAGACCTGAAGCCTGGGATTTATCGGAGCAATATGGATGGTT  
CTGCTGCCATACCTGGTGTCTGAGGATGTGAAGTGGCCCAATGGCATCTCTGTGGACGACCAGTGGATTTACT  
GGACGGATGCCTACCTGGAGTGCATAGAGCGGATCACGTTTCAAGTGGCCAGCAGCGCTCTGTCTTCTGGACAACC  
TCCCGCACCCCTATGCCATTGCTGTCTTTAAGAATGAAATCTACTGGGATGACTGGTTCACAGCTCAGCATATTCC  
GAGCTTCCAAATACAGTGGGTCCAGATGGAGATTCTGGCAAACAGCTCACGGGGCTCATGGACATGAAGATTT  
TCTACAAGGGGAAGAACACTGGAAGCAATGCCTGTGTGCCCAGGCCATGCAGCCTGCTGTGCCTGCCCAAGGCCA  
ACAACAGTAGAAGCTGCAGGTGTCCAGAGGATGTGTCCAGCAGTGTGCTTCCATCAGGGGACCTGATGTGTGACT  
GCCCTCAGGGCTATCAGCTCAAGAACAATACCTGTGTCAAAGAAGAGAACACCTGTCTTCGAACCAAGTATCGCT  
GCAGCAACGGGAACGTATCAACAGCATTTGGTGGTGTGACTTTGACAACGACTGTGGAGACATGAGCGATGAGA  
GAACTGCCCTACCACCATCTGTGACCTGGACACCCAGTTTCGTTGCCAGGAGTCTGGGACTTGTATCCCACTGT

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**FIGURE 827B**

CCTATAAATGTGACCTTGAGGATGACTGTGGAGACAACAGTGATGAAAGTCATTGTGAAATGCACCAGTGCCGGA  
GTGACGAGTACAACCTGCAGTTCGGCATGTGCATCCGCTCCTCCTGGGTATGTGACGGGGACAACGACTGCAGGG  
ACTGGTCTGATGAAGCCAACCTGTACCGCCATCTATCACACCTGTGAGGCCTCCAACCTCCAGTGCCGAAACGGGC  
ACTGCATCCCCCAGCGGTGGGCGTGTGACGGGGATACGGACTGCCAGGATGGTTCGGATGAGGATCCAGTCAACT  
GTGAGAAGAAGTGCAATGGATTCCGCTGCCCAAACGGCACTTGATCCCATCCAGCAAACATTGTGATGGTCTGC  
GTGATTGCTCTGATGGCTCCGATGAACAGCACTGCGAGCCCCCTCTGTACGCACTTCATGGACTTTGTGTGTAAGA  
ACCGCCAGCAGTGCCGTGTTCCACTCCATGGTCTGTGACGGAATCATCCAGTGCCGCGACGGGTCCGATGAGGATG  
CGGCGTTTGCAGGATGCTCCCAAGATCCTGAGTTCCACAAGGTATGTGATGAGTTCGGTTTCCAGTGTCAGAATG  
GAGTGTGCATCAGTTTGATTGGAAGTGCGACGGGATGGATGATTGCGGCGATTATTCTGATGAAGCCAACCTGCG  
AAAACCCACAGAAGCCCCAACTGCTCCCGCTACTTCCAGTTTCGGTGTGAGAATGGCCACTGCATCCCCAACA  
GATGGAAATGTGACAGGGAGAACGACTGTGGGGACTGGTCTGATGAGAAGGATTGTGGAGATTACATATTCTTC  
CCTTCTCGACTCCTGGGCCCTCCACGCTGTCTGCCCAATTACTACCGCTGCAGCAGTGGGACCTGCGTGATGGACA  
CCTGGGTGTGCGACGGGTACCGAGATTGTGCAGATGGCTCTGACGAGGAAGCCTGCCCTTGCTTGCAAACGTCA  
CTGCTGCCCTCCACTCCCACCAACTTGGGCGATGTGACCGATTGAGTTTGAATGCCACCAACCGAAGACGTGTA  
TTCCCAACTGGAAGCGCTGTGACGGCCACCAAGATTGCCAGGATGGCCGGGACGAGGCCAATTGCCCCACACACA  
GCACCTTGACTTGATGAGCAGGGAGTTCCAGTGCGAGGACGGGGAGGCCTGCATTGTGCTCTCGGAGCGCTGCG  
ACGGCTTCCTGGACTGCTCGGACGAGAGCGATGAAAAGGCCTGCAGTGATGAGTTGACTGTGTACAAAGTACAGA  
ATCTTCAGTGGACAGCTGACTTCTCTGGGGATGTGACTTTGACCTGGATGAGGCCCAAAAAATGCCCTCTGCAT  
CTTGATATATAATGTCTACTACAGGTGGTTGGAGAGAGCATATGGAAGACTCTGGAGACCCACAGCAATAAGA  
CAAACACTGTATTAAAGTCTTGAAACCAGATACCACGTATCAGGTTAAAGTACAGTTTCAAGTGTCTCAGCAAGG  
CACACAACACCAATGACTTTGTGACCCTGAGGACCCAGAGGGATTGCCAGATGCCCTCGAAATCTCCAGCTGT  
CACTCCCCAGGGAAGCAGAAGGTGTGATTGTAGGCCACTGGGCTCCTCCCATCCACACCCATGGCCTCATCCGTG  
AGTACATTGTAGAATACAGCAGGAGTGGTTCCAAGATGTGGGCTCCAGAGGGCTGCTAGTAACCTTTACAGAAA  
TCAAGAACTTATTGGTCAACACTCTATACACCGTCAGAGTGGCTGCGGTGACTAGTCGTGGAATAGGAACTGGA  
GCGATTCTAAATCCATTACCACCATAAAAGGAAAAGTGATCCCACCACCAGATATCCACATTGACAGCTATGGTG  
AAAATTATCTAAGCTTACCCTGACCATGGAGAGTGATATCAAGGTGAATGGCTATGTGGTGAACCTTTTCTGGG  
CATTTGACACCCACAAGCAAGAGAGGAGAACCTTTGAACCTCCGAGGAAGCATATTGTACACAAAGTTGGCAATC  
TGACAGCTCATACTCTATGAGATTTCTGCCTGGGCCAAGACTGACTTGGGGGATAGCCCTCTGGCATTGAGC  
ATGTTATGACCAGAGGGGTTTCGCCACCTGCACCTAGCCTCAAGGCCAAAGCCATCAACCAGACTGCAGTGGAAT  
GTACCTGGACCGGCCCCCGGAATGTGGTTTATGGTATTTCTATGCCACGTCCTTTCTTGACCTCTATCGCAACC  
CGAAGAGCTTGACTACTTCACTCCACAACAAGACGGTCATTGTAGTAAGGATGAGCAGTATTTGTTTCTGGTCC  
GTGTAGTGGTACCCTACCAGGGGCCATCCTCTGACTACGTTGTAGTGAAGATGATCCCGGACAGCAGGCTTCCAC  
CCCGTCACCTGCATGTGGTTCATACGGGCAAAACCTCCGTGGTCATCAAGTGGGAATCACCGTATGACTCTCCTG  
ACCAGGACTTGTGTATGCAATTGCAGTCAAAGATCTCATAAGAAAGACTGACAGGAGCTACAAAGTAAATCCC  
GTAACAGCACTGTGGAATACACCCTTAACAAGTTGGAGCCTGGCGGGAAATACCACATCATTGTCCAACCTGGGGA  
ACATGAGCAAAGATTCCAGCATAAAAAATTACCACAGTTTCATTATCAGCACCTGATGCCTTAAAAATCATAACAG  
AAAAATGATCATGTTCTTCTGTTTTGGAAAAGCCTGGCTTTAAAGGAAAAGCATTTTAAATGAAAGCAGGGGCTATG  
AGATACACATGTTTGATAGTGCCATGAATATCACAGCTTACCTTGGGAATACTACTGACAATTTCTTTAAATTT  
CCAACCTGAAGATGGGTCTAATAACACGTTACCGTCCAAGCAAGATGCCTTTTGGCAACCAGATCTGTGGGG  
AGCCTGCCATCCTGCTGTACGATGAGCTGGGGTCTGGTGCAGATGCATCTGCAACGCAGGCTGCCAGATCTACGG  
ATGTTGCTGCTGTGGTGGTGCCCATCTTATTCCTGATACTGCTGAGCCTGGGGGTGGGGTTTGCCATCCTGTACA  
CGAAGCACCGGAGGCTGCAGAGCAGCTTACCGCCTTCGCCAACAGCCACTACAGCTCCAGGCTGGGGTCCGCAA  
TCTTCTCCTCTGGGGATGACCTGGGGGAAGATGATGAAGATGCCCTATGATAACTGGATTTTTCAGATGACGTCC  
CCATGGTGATAGCCTGAAAGAGCTTTTCTCACTAGAAACCAATGGTGTAAATATTTTATTTGATAAAGATAGTT  
GATGGTTTATTTTAAAGATGCACTTTGAGTTGCAATATGTTATTTTATATGGGCCAAAAACNNNNNNNNNNNN  
NNNNNNNNNNNNNNNNNNNNNGAATGAATAAACTTTGTAGTAATCAACTGTGAACCTCAAACCAGGTTGATTTTA  
GTAACCAATGCTTTGATTTGACATTAATGTAGTCTTACAGGCTGTGCTTGCTGGGCATGCTTTTACGTCTGT  
GAGATAATTCGGTTCAGTAAATTGGCCAATCTTTTTATTTTCTAAGACACAGAAATGTATTTAATAAAAACCT

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**FIGURE 827C**

CGAGAGAGTGATGGGTGGAACCCCTTCTCCTTGAAAGTGTGTACAGATATTCCATTTTGTGGATATAGTTTAT  
AGGAAAGTGTGTGGATGTATTATGGCGGAAGGTTTCTTTATGTTATTTTGTAAATTTATTGGGACTCTGTGTAAG  
GCCAGGCTTTAGTGGTCATTAGACACCACATGTGTTATGAGCCCCCTACCCATAGGGTTGGGGGTGGGAAGAGAA  
GCATATTTTTTGGCATTCCGGAAGCAATCCATTTTTATTCACTTGTGTGTATGTAATGGTCTTTGGCAGGAGA  
GAGCACTGAGTCATTGCTGGAGTTCAGTTCAACAGAGCTGCAGCTTGGGAAGCCCTGTAAGCCACAGCTTCCTC  
TCTTATATTAATTGATGGAATTTTACTGTATGTGCCTCTGTACAAGATGTAGCTTTGAGAGCTACAAAATGATAA  
CACTGCTTTATTACACACTGGTTTCATTGTCAATTGCAAAAACCTACCCTGGTTGTGGGGGAGAGTTCTAGATCTG  
TGCCATGATCCATACACTGGCTAATAGAGTACATAATTTTCCATTTTCCATTTTTTGTTTTTACTTACTACTGA  
AGGATCTCAGATGTAAAATTATGTATTTGGTTTGAGATGGCCACTTATTGTCCTTAAAAATCCATACTGATATAT  
GCAGTCATTTTGAATTGGACAGTGCCTTCTCTTTTTTTTTCTCCTCTTCTTCCATCTCCCTCACCCATGCCCCA  
CCCAATCTAAAGAGACAGTGTGTACATTCTCATAGAGATAGAGAAGATCTAAAAAGTTGAGACTACTCAATCCA  
GTTAAACAACAGCAGGAGCACTAGAGTTTGTTCATTTATTCTCTCTGTAAAACAAGCTGTGCTTTTTTTCTTCTGC  
CTTTAAAAATGCCACCCGTGTATTCAAACCATGGCCACTTGATACTTATGTAGAATCCATCGTGGGCTGATGCAAG  
CCCTTTATTTAGGCTTAGTGTGTGGGCACCAATGTGCGAGCATCGTTGTGACTTGTGCTGTATGATTCTCACTGA  
AGAATTTCTTTTCCAGCCAAGAAGCAGTGAGGTCTGGGAATATTCCAAAGTCATGTCTCTGAATATGTGTCTTGA  
CGTGCAAGCTTTGTAAAACCCCATCCCCGCTTAGGTGCGAGGCATCACCTTCTCACAAGTGTTTTAGTTTCTTTTA  
ACCACAAGTATCATTCTTGGGTGATAATATAGTTTCACTTACTTAGGGATTGTTTAGAAAACAAAGAAAGAGCC  
AATTAAATTTTTTAGTTTTTGAATTTTTATTTATATGTATACTTAGATGAGTATTTTAAGCTGTGACCTTTAG  
TTTGCCATACGGGTAGGACTGTATTTTCATGTTAAACAACCTGGTGGTAATGATAAGCCTTCTTCTAGCGTATTTTCT  
CTTCTTCTGTCACTTTTCTAAGTTTTTTTTTTTTTAAAGACTGGAATTTTTTTTTGGCTTTATCTTGTCTTACCGT  
AGAGATTTGTTCAAACTCTAAGCCCTACCACCTCCCCTTAAATAAGCTCTTAAATAGTTGAATCATTAAACAAC  
CTGGTGGGAGGCAAGTCATTTAATTGAACCACTAGGAAGTGATTTTTCTTTTCTTTTCTGCCAACTTTTTGGTG  
GCATTTGTAAAAGCTGATATAAAAGGCTCTGAGATGTTATTTTCAGTTATTCCATAGGCAAGCCTTTTTACAGAG  
CATATGTCTCCAGTTGGCAGCTTGAGATATTTCCGAGCATCCGGTCTAGCTACCAGTGCCTCCCAATGCTTAGT  
GCACAGTACTGTAGACTGGCCATCACCCCTCTCCTTGAAAAATGCCACTGTGCTGTTTGAAAAAAGCAGCCTTT  
TAGGGCTAGAGTATTTTATATAAACAGAAGAGCTAAGTTCTGAAGACTAAGCTAGATAGCTGCAGCTATATGTA  
AATTGTATATTTTTATGAACTTTTGAAGCACACACTCCTGTTTCCCTCTGTGTAGCTTTGTGGGGATTTTCATGTA  
TATATGCTGTCTGAAAGAATCCAGAGGTTGGAGTGCCAATAGAAAATGAAAACAAATGCCTTGTACTACAGGCAG  
CCTCTGAAGGTGACCACATAACTGTCTTCACTGTGACCAATCGGAGTCCCTGCTTGTGTTGTGAAGAAGGGCTTT  
TGTACCTTGTGGAGATGCCACCTCAGAAGTTCACACTGTGCAGGAAAAAGGTTTTATTCTCTCCTGGCATAACAT  
TAGAATGTCAGATGCCTGCATCCATGTGGACCACGATGGGCCTCTAAAAATTGGTGGGCAGGGGGTTTTGCTTATG  
AGTTTTCTCTGGAAACCGATTTTACTCCTGGATGTATTGAATGCCCTTGAGCTTTATGAGATACGAGTCCACAT  
GGATAAAATGTTAGAGAGTGGAGTTCTACAGAGGATTCCAGGAAGAGGCCATGTCTGTGCAGTCCAGTTCCAGA  
CAGGTGAGAAGCTCCAGGAACCTACTGGCTACCTTGACAAGCTGGGTAAATAGTTATCATTCTGGGTAAGTGGTTG  
AAACTCTGACTTTTGGACAAGTAATTCCTGGGGTCTGTCTTTGGTAGCATCACCAGGGATATTTGGGTGGGACA  
GACAGAAGACACACAGCTGCCTGTTCTCTCCTGCCCATCATGTTTGGCCACTAGATGAAGCTGTACTCAGCAAT  
TTAGGGAATGTAACCTTCTCAGAACTGGCCATTTTCAAGGGGAAGCTTGGGAGAGCAATAGTATGGTGAGCCCCCT  
TAGAGATGAGCGCCTACTCCTTCTTGGCGAATGCTGCCTTCAGATGCTTACCAAGTGGTCACTGCATCTAGTAAG  
ATTATATTTCCAGTACACTTCTTAGGGCAGAAACACCATCCTATCAGGTTTGGTCACTCCCTTCTTCATGAAGG  
GAGTCATGGGGAATTCCTGAAAATTTTCTTCTTCTGCAGACAGTTGGATGAGTCCCTTAGAGAAGGCATCCAGA  
GACATAACTAACTGAATATCATCCATATTGATTTTAGGAATTGACTCTAAACTCTGTGCAGAATCTTGTGTT  
GGGATTGTATCTTGACATTCTGTTGTGTTATTTTTCTTAACTGGAGTGTGTGCTGCCTTTCAAGGTACAATTTTT  
GTGTAATAAAAGCCAGTGCATTAAGTTTATATAGACTACTTTCTATGCAAGACTGAGATATGGAATAGATAGGAA  
GAGATATGTAAGTGTGGGTACATGGACAGTAAGTGTGTTTTTCAGATGGAGTACCAGCACCGAAAATGGGTTGAGG  
GAGGATGGGTTGTATGTATGTTTCTGCCCACTAATTTTGGAGCAGCCATATTATGAATTAATCGTCACAGCCAAG  
TAATAACCCAAGAATGGTATGAGTTTCATGTGTAATAGCTCAAATGGAATAAGCATGAATGCTGGAGTGGACCAT  
TATCCTCAAATATTCTATGTCACTTCTCATTTAAAGACTCTTGTATGAATATTAGAACTTTAGGCAAAATCA  
AAAGTATTTGCGGCAAAATAAAGGCCTATTCTACTCTTATTTAAAGTGAAACACTGTATACTTGTCTCTCCAA

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**FIGURE 827D**

AGCGAAATTAAGTATTTATAATTTCAATTGCCTCGATAAGTTTCCAAGTCACTGAAATCTGCTGAAGGTTTTACT  
GTATTGTTGCACAACTTTAAGATAATTTTTGTCTCAATGTCAACTTTTTTCACTGAATAAAAAATTTAACTGGGTC  
AAGAAAACACCTCTTTGAAAATCCACTGTCTCTGTGTGTCTCGAGCTGTTCTTTAGAGCGCAATAAAGATGGCTG  
ACGCAGTCTCCAAACCCC

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**FIGURE 828**

AASTVFPLAWLSLILWGFSLGAGPRISQRWYFGDTCLHLTEPALLASRCTFSPGGGATCSSVRPNMATRSSRRES  
RLPFLFTLVALLPAGALCEVWTQRLHGGSAFLPQDRGFLVVQGDPRELRLWARGDARGASRADEKPLRRKRSAAAL  
QPEPIKVYGVVSLNDSHNQMVVHWAGEKSNVIVALARDSLALARPSSDVVSYDYGKSFKKISDKLNFGNGRS  
EAVIAQFYHSPADNKRYIFADAYAQYLWITFDFCNTLQGFSSIPFRAADLLHASKANLLLGFDNRSHPNKQLWKS  
DFGQTWIMIQEHVKSFSWGIDPYDKPNTIYIERHEPSGYSTVFRSTDFQSRNQEVILEEVDRDFQLRDKYMFAT  
KVVHLLGSEQQSSVQLWVSFGRKPMRAAQFVTRHPINEYYIADASEDQVFVCSHNNRTNLYISEAEGKFSLS  
LENVLYYSPGGAGSDTLVRYFANEPFADFHRVEGLQGVYIATLINGSMNEENMRSVITFDKGGTWEFLQAPAF  
YGEKINCELSQGC SLHLAQRSLQLNLQLRRMPLSKESAPGLIATGSGVGNLASKTNVYISSAGARWREALP  
GPHYTTWGDHGGIITAI AQGMETNELKYSTNEGETWKTFIFSEKPVFVYGLLTPGEEKSTVFTIFGSNKENVHSW  
LILQVNATDALGVPCTENDYKLWSPSDERGNELGLHKT VFKRRTPHATCFNGEDFDRPVVSNCSCTREDYEC  
FGFKMSDEL SLEVCVPDPEFSGKSYSPVPCPVGSTYRRTRGYRKISGDTCSGGDVEARLEGEVLVPCPLAEENE  
ILYAVRKSIIYRYDLASGATEQLPLTGLRAAVALDFDYEHNCYLSWSDALDVIQRLCLNGSTGQEVINSGLTVE  
ALAFEPLSLLYWDAGFKKIEVANPDGDFRLTIVNSSVLDRPRALVLPQEGVMFWTDWGDLPKGIYRSNMDGS  
AAYHLVSEDVKWPNGISVDDQWIYWTDAYLECIERTFSGQQRSVILDNLPHYAI AVFKNEIYWDWSQLSIFR  
ASKYSGSQMEILANQLTGLMDMKIFYKGKNTGSNACVPRPCSLCLPKANNRSRSCPCPEDVSSSVLPSSGLMCD  
PQGYQLKNNTCVKEENTCLRNQYRCSNGNCINSIWWCDFDND CGDMSDERNCPTTICDLDTQFRCQESGTCIPLS  
YKCDLEDDCGDNDSESHCEMHQCRSDEYNCSSGMCIRSSWVCDGDND CRDWSDEANCTAIYHTCEASNFCQRNGH  
CIPQRWACDGDTCQDGSDEDPVNCEKKCNCFRCPNGTCIPSSKHCDGLRDCSDGSDEQHCEPLCTHFMDFVCKN  
RQQCLFHSMVCDGIIQCRDGSDEDAAFAGCSQDPEFHKVCDEFQFCQNGVCISLIWKCDGMDDCGDYSDEANCE  
NPTEAPNCSRYFQFRCENGHCIPNRWKCDREND CGDWSDEKDCGDSHILPFSTPGPSTCLPNYYRCSSGTCVMDT  
WVCDGYRDCADGSDEEACPLLANVTAASTPTQLGRCDRFEFECHQPKTCIPNWKRCDGHQDCQDGRDEANCP  
THS TLTCMSREFQCEDEGEACIVLSERCDGFLDCSDESDEKACSDELTVYKVQNLQWTADFGSDVTLTWMRP  
KKMP SAS CVYNVYYRVVGESIWKTLETHSNKTNTVLKVLKPDTTYQVKVQVQCLSKAHNTNDFVTLRTPEGL  
PDAPRNQLS LPREAEGVIVGHWAPP IHTHGLIREYIVEYSRSGSKMWASQRAASNFT EIKNLLVNTLYTVRVA  
AVTSRGIGNWS DKSITTIKGVIPPPDIHIDSYGENYLSFTLTMESDIKVNKYVNLFWAFDTHKQERRTLNFRGS  
ILSHKVGNL TAHTSYEISAWAKTDLGDSPLAFEHVMTRGVRPPAPSLKAKAINQTAVECTWTGPRNVVYGIF  
YATSF LDLYRNP KSLTTSLHNKTVIVSKDEQYLFLVRVVVPYQGPSSDYVVVKMIPDSRLP  
PRHLHVHTGKTSVVIKWE SPYD SPD QDLLYAI AVKDLIRKTD RSYKVKSRNSTVEYTLNKLEPGGKYHI  
IVQLGNMSKDSSIKITTVSLSAPDALKIITE NDHVLLFWKSLALKEKHFNESRGY EIHMFDSAMNITAY  
LGNTTDNFFKISNLKMGHNYTFTVQARCLFGNQICGE PAILLYDELGSGADASATQAARST  
DVAAVVVPILFLILLSLGVGFAILYTKHRRLOSSFTAFANSHYSSRLGSAI FSSGDDLGEDDEDAPMIT  
GFSDDVPMVIA

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**FIGURE 829**

AGGCGCTGCGGAGACGCGTAGAGGAGCGCGCCCCCGCCGCGTCCGCMCCCTGGCCCGTGCCGTCACCCCGCTTC  
TCCGCGCCTCGGGCGGTACCCAGCCAGTCCCCAGCGCCGCGCTACCGCGCTGACCGGCCCTCCAGACGCCTCCCG  
GTACCCGGGACCCAGCCCGCGCGCTCGCCCGAGCCCGCGGCCGACACGTCCCCGGAGCCGGGCCTAGGGCG  
GGCGGCAGGGCGGCTCGGCGCAGTCAGGCTGGGCTCTGTAGCGTCCCCATGGCCGCGCGCGGCTGGCGGGACGGC  
TCCGGCCAGGAGAAGTACCGGCTCGTGGTGGTCGGCGGGGGCGGCGTGGGCAAGTCGGCGCTCACCATCCAGTTC  
ATCCAGTCCTATTTTGTAAACGGATTATGATCCAACCATTGAAGATTCTTACACAAAGCAGTGTGTGATAGATGAC  
AGAGCAGCCCGGCTAGATATTTTGGATACAGCAGGACAAGAAGAGTTTGGAGCCATGAGAGAACAGTATATGAGG  
ACTGGCGAAGGCTTCCTGTTGGTCTTTTCAGTCACAGATAGAGGCAGTTTGAAGAAATCTATAAGTTTCAAAGA  
CAGATTCTCAGAGTAAAGGATCGTGATGAGTTCCCAATGATTTTAATTGGTAATAAAGCAGATCTGGATCATCAA  
AGACAGGTAACACAGGAAGAAGGACAACAGTTAGCACGGCAGCTTAAGGTAACATACATGGAGGCATCAGCAAAG  
ATTAGGATGAATGTAGATCAAGCTTTCATGAACCTTGTCGGGTTATCAGGAAATTTCAAGAGCAGGAATGTCTCT  
CCTTACCAGAACCAACACGGAAAGAAAAGACAAGAAAGGCTGCCATTGTGTCAATTTTCTAGAATCCCTTCAGT  
TTTAGCTACCAACGGCCAGGAAAAGCCCTCATCTTCTCTTCTCTCTCCTCAGTTTACATCTTGTTGGTACCTTTCT  
AGCCTTAGACAAATGATCACCATGTTAGCCTTAGACGAAGAAGCTGGCTAGTCCTTTCTGTGAAGCTAATACAAT  
GGTCATTTCCAGACAAATTTAAAGGAAACACTAAGGCTGCTTCAAAGATTATCTGATTCCTTTAAAATATATGTC  
TATATACACAGACATGCTCTTTTTTTAAGTGCTTACATTTTAATAGAGATGAATCAGTTTTGGAATCTAAGCTGT  
TTGCCAAGCTGAAGCTACAGGTTGTGAATAATTTTAACTTTTGAATCATACTGCCTACTGTTACTCTAAATA  
GAAATATAGGGTTTTTTTTAATGTGAATTTTGCCTATCTTTAAACATTTCAATGTCAGCCTTTGTTAACCTTAA  
ATACACTGAATTGAATCTACAAAAGTGAACCATCTCAGACCTTTACTGATACTACAACCTTTGTTTTCTGATGGC  
CAAAATACCAATGCCTGTTGTATTTATGGATTAAAACTGCTTATAAAACCCTGTGTTACTACTCCTACTCTTG  
GAGATGATAATATTCTATGTGGTCAAATATTTGGACTCATTTAGGACTTAGATATTTTCAGTGTACTTTGATTTTTT  
AATTTAACTCTTTTTTACAGCCACGCTAAGGGTAAAAAGGAATAATTTCTCTGTCTTCTTTTCAAGTATTTT  
TGGGTAAGGGATTCAAAAACTAAAAGTGTTTTTGTTTGTAAATATAAAATATGGAATTGATCTTTCCAGGGTCAG  
AGATGATTAATGTTTTTGTATATACCTTTTATACATTATTTTCTTATCAAACCTAGTTAACAAGTATTTTTATATG  
TTTGTAAGCAGATATGCTTTTATAGCATACCTTGTGTATATGTAAAGATAAGTATTTAATTCTCACTGTTCACTT  
TTAACTGACAAAAGAAAACAAGTGGAACCTACAGAACTGTGGTAGAACTTTTACTTGCTGGTCTGGTCTTGTT  
GTACCCATCTTTGGCCAGTCACATAACTACTCAAGAAACCTTCCCAATAGAGTACAACAGGATGAGACTCTGAAA  
TCACCTTTCAGTATTCCTGCTAGATATTGATTGTTATTTCAAGTATTAAGTGTAAGCTTTTAAATGGATAATTAGT  
ATAACTGTGGATGGCATCTGATTTTGTTTTTAATTCTGTGGATTGTGTTTAAAGCAATTCAATAGTAIGTTCTGA  
TTTTGAGATGCTAAGTGGTATTGCACAGTTGTCACTTTATCAAGTGTGTACAACAGTCCCATGAAGTTTATAGAG  
CATACCTTGTATAGCTTCAGGTGCTAGAATTAAAATTGATCTGTTATCACAAAAAAAAAAAAAAAAAAAAAAGG  
CTCTTTAATTAGGCG

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**FIGURE 830**

CGCGCCTCGGGCGGTACCCAGCCAGTCCCCAGCGCCGCGCTACCGCGCTGACCGGCCCTCCAGACGCCTCCCGGT  
ACCCGGGACCCCAGCCCGGCCGCTCGCCCGCAGCCCGCCGGCCGCACACGTCCCCGGAGCCGGGCCTAGGGCGGG  
CGGCAGCGGCGGCTCGGCGCAGTCAGGCTGGGCTCTGTAGCGTCCCC**ATGG**CCGCGGCCGGCTGGCGGGACGGCT  
CCGGCCAGGAGAAGTACCGGCTCGTGGTGGTCGGCGGGGGCGGCGTGGGCAAGTCGGCGCTCACCATCCAGTTCA  
TCCAGTCCTATTTTGTAACGGATTATGATCCAACCATTGAAGATTCTTACACAAAGCAGTGTGTGATAGATGACA  
GAGCAGCCCGGCTAGATATTTTGGATACAGCAGGACAAGAAGAGTTTGGAGCCATGAGAGAACAGTATATGAGGA  
CTGGCGAAGGCTTCCTGTTGGTCTTTTCAGTCACAGATAGAGGCAGTTTGAAGAAATCTATAAGTTTCAAAGAC  
AGATTCTCAGAGTAAAGGATCGTGATGAGTTCCCAATGATTTTAATTGGTAATAAAGCAGATCTGGATCATCAA  
GACAGGTAACACAGGAAGAAGGACAACAGTTAGCACGGCAGCTTAAGGTAACATACATGGAGGCATCAGCAAAGA  
TTAGGATGAATGTAGATCAAGCTTTCATGAACCTTGTCGGGTATCAGGAAATTTCAAGAGCAGGAATGTCCTC  
CTTCACCAGAACCAACACGGAAAGAAAAAGACAAGAAAGGCTGCCATTGTGTCATTTTCT**AGAA**TCCCTTCAGTT  
TTAGCTACCAACGGCCAGGAAAAGCCCTCATCTTCTCTTCTCTCCTCAGTTTACATCTTGTTGGTACCTTTCTA  
GCCTTAGACAAATGATCACCATGTTAGCCTTAGACCAAGAAGCTGGCTAGTCCTTTCTGTGAAGCTAATACAATG  
GTCATTTCCAGACAAATTTAAAGGAAACACTAAGGCTGCTTCAAAGATTATCTGATTCTTTAAATATATGTCT  
ATATACACAGACATGCTCTTTTTTTAAGTGCTTACATTTTAATAGAGATGAATCAGTTTTGGAATCTAAGCTGTT  
TGCCAAGCTGAAGCTACAGGTTGTGAAATAATTTTTAACTTTTGGAATCATACTGCCTACTGTTACTCTAAATAG  
AAATATAGGGTTTTTTTTAATGTGAATTTTTGCCTATCTTTAAACATTTCAATGTCAGCCTTTGTTAACCTTAAA  
TACACTGAATTGAATCTACAAAAGTGAACCATCTCAGACCTTTACTGATACTACAACTTTGTTTTCTGATGGCC  
AAAATACCAATGCCTGTTGTATTTATGGATTAAAAACTGCTTATAAAAAAAAAAAAAAAAAA





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**FIGURE 832**

TTAAGCACTTGTTTTGGGTACAAGGCATTTCTGACATTTTATAAACCTACATTTAAGGGGAATTTT**TAA**AGGAAA  
TGTTTTTCTTTTTTTTTTGTTCGAGGGGGCAAGGAGGGACAGAAAAGTAACCTCTTCTTAAGTGGAATATT  
CTAATAAGCTACCTTTTGTAAGTGCCATGTTTATTATCTAATCATTCCAAGTTTTGCATTGATGTCTGACTGCCA  
CTCCTTCTTTCAAGGACAGTGTTTTTTGTAGTAAATCACTGGTTTATACAAAGCTTTATTTAGGGGGTAAAGT  
TAAGCTGCTAAAACCCCATGTTGGCTGCTGCTGTTGAGATACTGTGCTTTGGGAGTAAAAAAGAAAGTTATTC  
TTTGTCTTAAAGAATTTTAAAAAATTAGTCATGAGACTTATTCATCTTTCCAGGGAACATACTGATTGGTCTTA  
AAAGACTAGACAGTTAAGTAAAAGGTGGCTGGAACATCTATTTTCTACAAAAGTGGAAAAATGAACCTGGTTCT  
AGAAGAATGTACACCAAATAAAACATGTGAAGCAGTATTGATTCTTT

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**FIGURE 833**

LSTCFGYKAFLTFYKPTFKGNF

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**FIGURE 834**

GCACGAGCATAGACTTTTAAACTGGTACGGTTCTTAGAGATGTCCTTGGCCTTCTGTTGTTGTTGTKGTTTTTT  
TCTTTTCTTCTTCTCCTTCTCCTTCTTCTTCTTCTCCTTCTTTCTTCTTTTTTTTTTTCAGAGTCTTGCTCTG  
TCACCAAGACTGGAGTGAAGTGATGTGATCTCGGCTTACTGCAACCTGGGAGGCAGAGGTTGCAGTGAGTCGAGA  
TGGTGCCATTGCTCTCGTTTGGGCAACAAGAGTGAACTCTTGTCTCAAAAAAAAAAAAAAAAAATGAGGTTTAAGA  
CAGTTTTGTCATTACTGGTGGGATCTGGTCACACAAGATAGCATTAAACGTGACATGGCACATAAAATTGGTTAA  
AAAATTTGTTTTTTTAATTACGTAATGTAAAAGCCCAACAAACACTTTATGCAAGATTGGAATGTATCTTCAAAT  
TCAGATTTAATAAACATGTAAAGATCCTCTGTATATAAAAGTTGTATTTAATCCCTTGTGCCCCAAGAATGCTAT  
AAAAGATCCCAAGAATGTTATCTATGAAAAGATAGCAATAGGGAATGGTGAACAAATAATTTAATTTGCCAATTC  
TAAAAAACATGGACTTAAACCCCATGAAAACCTTGGTTCCATAGTTTTAACTGTTTTATGGTTCCAATACAAACC  
AGAGTGGTTTACATTCCACAATXACCAATTTGCATCCAATXTTGGGGTAATTTTXGGTATTTGCCATGGGATAC  
TATTCATTTTT

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**FIGURE 835**

MVLGLLLLLXFFSFSSSPSPSSLLLLSSFFFQSLALSPRLE

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**FIGURE 836**

TGTCGGGGACGGTAACCGGGACCCGTGCTCTGCTCCTGTCGCCTTCGCCTCCTGAATCCCTAGCCAT**ATG**CGTGA  
 GTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTCTACTGCCTGGAACA  
 CGGCATCCAGCCCAGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCCTTCAACACCTTCTT  
 CAGTGAGACGGGCGCTGGCAAGCACGTGCCCCGGGCTGTGTTTGTAGACTTGGAACCCACAGTCATTGATGAAGT  
 TCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAGGAAGATGCTGCCAATAACTA  
 TGCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTTGTGTTGGACCGAATTCGCAAGCTGGCTGACCA  
 GTGCACCCGCTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAAGTGGTTCTGGGTTACCTCCCTGCT  
 CATGGAACGCCTGTCAGTTGATTATGGCAAGAAATCCAAGCTGGAGTTCTCCATTTACCCGGCACCCCAGGTTTC  
 CACAGCTGTAGTTGAGCCCTACAACCTCCATCCTCACCACCCACACCACCCTGGAGCACTCTGATTGTGCCTTCAT  
 GGTAGACAATGAGGCCATCTATGACATCTGTCTGTAGAAACCTCGATATCGAGCGCCCAACCTACACTAACCTTAA  
 CCGCCTTATTAGCCAGATTGTGTCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTGAATGTTGACCTGAC  
 AGAATTCCAGACCAACCTGGTCCCCTACCCCGCATCCACTTCCCTCTGGCCACATATGCCCCTGTCTCTCTGC  
 TGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGACATCACCAATGCTTGCTTTGAGCCAGCCAACCAGATGGT  
 GAAATGTGACCCTGGCCATGGTAAATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTGGTTCCCAAAGATGT  
 CAATGCTGCCATTGCCACCATCAAAACCAAGCGCACGATCCAGTTTGTGGATTGGTGCCCCACTGGCTTCAAGGT  
 TGGCATCAACTACCAGCCTCCCACTGTGGTGCCTGGTGGAGACCTGGCCAAGGTACAGAGAGCTGTGTGCATGCT  
 GAGCAACACCACAGCCATTGCTGAGGCCTGGGCTCGCCTGGACCACAAGTTTGACCTGATGTATGCCAAGCGTGC  
 CTTTGTTCACCTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTAGAGGCCCGTGAAGATATGGCTGCCCT  
 TGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGAGAGGAATACT**TAAT**  
 ATCCATTCCTTTTGGCCCTGCAGCATGTCTGCTCCCAGAATTCAGCTTCAGCTTAAGTACAGATGTTAAAGC  
 TTTCTGGTTAGATTGTTTTCACTTGGTGATCATGTCTTTTCCATGTGTACCTGTAATATTTTTCCATCATATCTC  
 AAAGTAAAGTCATTAACATCA

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**FIGURE 837**

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI  
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTRLQGFLVFHSFGGGTGSGFT  
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNSILTTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVADITNACFEPAN  
QMVKCDPGHGKYMACCLLYRGDVVPKDVNAAIATIKTKRTIQFVDWCPTGFKVGINYQPPTVVPGDLAKVQRAV  
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEYEVGVDSVEGEGEEEGEE  
Y

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**FIGURE 838**

GGGCTTCCTGGGGAGGGTGTGGCAGGGTGGTGGGCATCCCCTCCCTCACCAAAGCATGGGCTCTTTGTTTCCTCT  
 TTGCCAGGCCTGGGTCCTTCCCAGTGACCCCTCAGCCTTCACTTCCTCCTCACTCCCGGGGAGCTGTGACAGGTG  
 TTTGGGGGAGGGGAGGGGGGTATGATAAGCTGGGACAGCTGCACCCACCGGTGCTCTGGTGAGATGGGGGGCCCG  
**GATG**TTGGGGAGACACATCTGCTGGGTTCCCAGCCCAAGGTCCCCAACCCCTGGCTGTCTGGCCTTGTCTGTCACC  
 CCCCCTGCCCCACTGGCAGGGACAGGAAGCTCCCCCCCCACCCCGCTTTGGGCAGTTTGCCTTGGCACGGGCCTGA  
 TCTGTTTTCTCCCCAGAGCAGCTGCTGTTCTGTCTGCTGGGCAGAGGGCTGGGTTCCCTCCGAGGTAGGCAGGGG  
 CCTCAACCCAGAGCCCCTCTCACACCCTCTTTCAACTCAGGCTTATGTCTCTCCCTCCTCCCCACCCCCACCCC  
 AGGAAGAGGAGATCCCAGAACTGGAGAT**TGAC**GTGGATGAGCTCCTGGACATGGAGAGTGACGATGCCCCGGGCTG  
 CCAGGGTCAAGGAGCTGCTGGTTGACTGTTACAAACCCACAGAGGCCTTCATTTCTGGCCTGCTGGACAAGATCC  
 GGGGCATGCAGAAGCTGAGCACACCCCAGAAGAAGTGAGGGTCCCCGACCCAGGAGAACGGTGGCTCCACAGGA  
 CAATCGCTGCCCCCAACCTCGTAGCAACAGCAATACCGGGGGACCCTGCGGCCAGGCCTGGTGCCATGAGCAGG  
 GCTCCTCGTGCCCCCTGGCCCAGGGGTCTCTTCCCCTGCCCCCTCAGTTTTCCACTTTTGGGGTTTTTTATTGTTA  
 TTAAACTGATGGGACTTTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 839**

MLGRHICWVSPRSPTLAVWPCLSPVPTGRDRKLPPHPALGSLPWHGPDFSSPEQLLFCLLGRGLGSSEVGRG  
LNPEPLSHPLSTQAYVSPSSPTPTPGRGDPRTGD



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**FIGURE 840A**

AAGTCAGCGCTGGAGTCGGCTAGGCGGCTGGAAACGGCGGCTGCCGCCGTGACTCAGGGAGGCGGGAGGCGGGG  
GAGGAGCTCTTCCTGCAGGCGTGAAACC**ATGG**TGCTCACGCTCGGAGAAAGTTGGCCGGTATTGGTGGGGAGGA  
GGTTTCTCAGTCTGTCCGCAGCCGACGGCAGCGATGGCAGCCACGACAGCTGGGACGTGGAGCGCGTCGCCGAGT  
GGCCCTGGCTCTCCGGGACCATTTCGAGCTGTTTCCACACCCGACGTTACCAAGAAGGATCTGAAGGTGTGTGTGG  
AATTTGATGGGGAATCTTGAGGAAAAGAAGATGGATAGAAGTCTACAGCCTTCTAAGGAGAGCATTTTTAGTAG  
AACATAATTTGGTTTTAGCTGAACGAAAGTCACCTGAAATTTCTGAACGAATTGTACAGTGGCCTGCAATAACGT  
ACAAACCTCTGTTGGACAAAGCTGGTTTGGGATCCATAACTTCTGTTTCGCTTTCTGGGAGATCAACAAAGAGTAT  
TTCTTTCTAAAGACCTTTTGAAGCCTATACAGGATGTAAACAGTCTTCGACTTTCTCTTACGGATAATCAGATTG  
TCAGTAAAGAATTTCAAGCTTTGATTGTGAAGCATTTAGATGAAAGCCATCTTTTAAAGGTGACAAAACTTAG  
TTGGTTCAGAAGTAAAAATTTATAGCTTGGACCCATCTACTCAGTGGTTTTTCAGCAACCGTTATAAATGGAAACC  
CAGCATCAAAAACTCTTCAAGTCAACTGTGAGGAGATTCCAGCACTGAAAATTGTTGATCCGTCCTGATTTCATG  
TTGAAGTTGTACACGATAACCTTGTGACATGTGGTAATTCTGCAAGAATTGGAGCTGTAAAACGCAAGTCTTCTG  
AGAATAATGGAACCTTGGTTTCCAAACAAGCAAAATCTTGCTCTGAGGCCTCTCCCAGTATGTGTCTGTGCAGT  
CTGTACCTACAACAGTTTTTAAAGGAGATACTGCTTGGCTGTACTGCGGCAACTCCACCTAGTAAGGACCCAAGAC  
AGCAAAGTACTCCCAGGCTGCCAACTCTCCACCTAACCTTGGAGCAAAAATTCCTCAAGGATGTCATAAAACAAA  
GTTTACCAGAGGAAATTTCTTCTGTCTAAATACAAAGTCTGAAGCTCTGAGAACAAAACCAGATGTCTGCAAAAG  
CAGGGTTGCTCTCAAAGTCCTCTCAGATTGGAAGTGGAGACTTGAAAATTCTGACTGAGCCAAAAGGCAGCTGTA  
CTCAGCCTAAGACAAACACTGATCAGGAAAACAGATTGGAGTCTGTTCCACAAGCATTGACTGGCCTTCCTAAGG  
AGTGCTTACCTACAAAGGCTTCTTCTAAGGCAGAATTGGAATTGCCAATCCTCCTGAAGTGCAGAAGCACCTAG  
AACATGCACCTTCCCCATCGGATGTTTCAAATGCACCAGAAGTGAAAGCAGGTGTCAATAGTGATAGCCCTAATA  
ACTGTTCAAGAAAAAGGTAGAACCTTCAGCTTTAGCTTGGCGATCACAGAATTTAAAGGAATCTTCAGTAAAG  
TAGATAATGAAAGCTGTTGTTCAAGAAGCAACAATAAAATCCAGAATGCCCCATCCAGGAAGTCGGTTTTGACAG  
ACCCAGCTAAACTCAAAAAGCTGCAACAGAGTGGCGAGGCTTCGTACAGGATGATTCTTGTGTGAACATCGTGG  
CACAGTTGCCATAATGCCGAGAGTGTGCTTGGACAGTCTCCGCAAGGATAAGGAGCAACAGAAGGACTCACCTG  
TGTTTTGCCGCTTCTTTCACTTCAGGAGGTTACAATTCAACAAACATGGTGTGTTGCGGGTAGAAGGCTTCTTAA  
CACCAAAACAAGTATGACAATGAAGCAATTGGCTTGTGGTTACCTTTAACCAAAAACGTTGTGGGGATTGATTGG  
ACACAGCAAAAGTACATCTTGGCCAACATTGGAGACCCTTCTGTCAAATGGTGATTTCTGAAAAGGAAGCTATGT  
CAACTATTGAGCCACACAGACAGGTTGCTTGGAAAGCGAGCTGTCAAAGGTGTTGAGAAATGTGTGATGTGTGCG  
ACACCACCATCTTCAACCTGCACTGGGTGTGTCTCGGTGTGGGTTTGGAGTATGTGTGGACTGCTACCGGATGA  
AGAGAAAAGATTGCCAACAGGGTGCTGCTTACAAGACTTTCTCTTGGCTAAAATGTGTGAAGAGTCAGATACATG  
AACCAGAGAACTTAATGCCACACAGATCATTCTGGAAAAAGCACTCTATGATGTTGGAGACATTGTTCAATTCTG  
TAAGAGCGAAATGGGGAATAAAGGCAAACTGCCCTTGTTCAAACAGGCAATTCAAACCTTTTTCAAAGCCAGCCT  
CAAAGGAAGACCTAAACAGACTTCTTTAGCTGGAGAAAAACCGACTCTTGGTGCAGTGCTCCAGCAGAATCCCT  
CAGTGTGGAGCCAGCAGCTGTGGGTGGGGAAGCAGCCTCCAAGCCAGCCGGCAGCATGAAGCCTGCCTGTCCAG  
CCAGCACATCTCTCTAAACTGGCTGGCCGACCTAACCCAGCGGAATGTCAACAAGGAAAACAAGGAAAAACAAC  
CAACAATGCCAATTTTAAAGAATGAAATCAAATGCCTTCCACCCCTCCACCTTTAAGCAAATCCAGCACAGTCC  
TCCATACGTTTAAACAGCACAAATTTGACACCCGTAAGCAACAACAATTCTGGTTTTCTCCGGAATCTCTTGAATT  
CTTCTACAGGAAAGACAGAAAATGGACTCAAGAATACACCAAAAATCCTTGATGACATCTTTGCCTCTTTGGTGC  
AAAATAAGACGACTTCTGATTTATCTAAGAGGCCTCAAGGACTAACCATCAAGCCAGCATTCTGGGCTTTGACA  
CTCCTCACTATTGGCTTTGTGATAATCGCTTGCTGTGCTTGCAAGACCCCAACAATAAGAGCAACTGGAATGTGT  
TTAGGGAGTGCTGGAAACAAGGGCAGCCAGTGATGGTGTCTGGAGTGCATCATAAATTGAACCTCTGAACCTTTGGA  
AACCTGAATCCTTCAGGAAAGAGTTTGGTGAGCAGGAAGTAGACCTAGTTAATTGTAGGACCAATGAAATCATCA  
CAGGAGCCACAGTAGGAGACTTCTGGGATGGATTTGAAGATGTTCCAAATCGTTTGAATAATGAAAAAGAACCA  
TGGTGTGAAACTTAAGGACTGGCCACCAGGAGAAGATTTTAGAGATATGATGCCTTCCAGGTTTGATGATCTGA  
TGGCCAACATTCCACTGCCCAGTACACAAGGCGAGATGGCAAACTGAATTTGGCCTCTAGGCTGCCAACTACT  
TTGTTCCGCCAGATCTGGGCCCCAAGATGTATAATGCTTATGGATTAATCACTCCTGAAGATCGGAAATATGGAA  
CAACAAATCTTCACTTAGATGTATCTGATGCAGCTAATGTATGCTGTTGTTGTTGTTGTTGTTGTTGTTGTTGTT  
AGCAAGAAGAAGAAGTCCTTAAGACCATCCAAGATGGAGATTCTGACGAACTCACAATAAAGCGATTTATTGAAG

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**FIGURE 840B**

GAAAAGAGAAGCCAGGAGCACTGTGGCACATATATGCTGCAAAGGACACGGAGAAGATAAGGGAATTTCTTAAAA  
AGGTATCAGAAGAGCAAGGTCAAGAAAACCCAGCAGACCACGATCCTATTCATGATCAAAGCTGGTATTTAGACC  
GATCATTAAAGAAAACGTCCTTCATCAAGAGTATGGAGTTCAAGGCTGGGCTATTGTACAGTTTCTTGGGGATGTGG  
TGTTTATCCCGGCAGGAGCTCCACATCAGGTTTCATAACTTATATAGCTGCATCAAAGTGGCTGAAGATTTTGT  
CTCCAGAGCATGTTAAACACTGCTTCTGGCTTACTCAGGAATCCGATATCTGTACAGACTCATACCAATCACG  
AAGATAAATTACAGGTGAAGAATGTTATCTACCATGCAGTGAAAGATGCAGTTGCTATGCTGAAAGCCAGTGAAT  
CCAGTTTTGGCAAACCT**TAA**TCTCCCTGCACATTGGAAATGAATTACAGGCAGCTGTTCAAACCTCTCAGGCAGG  
ATTCCTGTGGACTTTGAGATTCATGTTACCTCATCTTCTTTTTTAAACTGTACCCAACCTGTGAGGGTACTCTGT  
CTAATGTATATTTCTAGTGTTTACAGACAGTAAATGTGTATATGTAGTAACTATTTACAGAACATGCATCCTTAA  
ACTGTGACTTCTCACCTAGTGCAGAACTTTTACCAGGCTGTAAAAGCAAACCTCGTATCAGCTCTGGAACAATA  
CCTGCAGTTATTCTTCAGCTGTTTGGACAACCTAGATTGGGTTTATAACTATTAGGAATCACTGCACAGTTTATT  
TGGGTTGTGTTTTGTGTCTGAGTCCCTCCCTCATCCCTTAGGGTCCAGAAGAGCAATGGAGGAAGTGACAGCTA  
ATGTTGCAGTTCTTATTGTATGGCATAGGACTGGCATTATATAGCAGAAATCACTACTGTACAATTTCTTGGGG  
TTAACCATCTTTAGTTAAATGGAATTTTAATTTAAATGACGCTTTGCTAATTTTAAGTGTTAAGCATTTTGCATT  
AAAAATATTCATATAAT

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**FIGURE 841**

MVLTIGESWPVLVGRRLSLSAADGSDGSHDSWDVERVAEWPWLSGTIRAVSHTDVTKKDLKVCVEFDGESWRKR  
RWIEVYSLRRRAFLVEHNLVLAERKSPEISERIVQWPAITYKPLLDKAGLSITSVRFLGDQQRVFLSKDLLKPI  
QDVNSLRSLTDNQIVSKEFQALIVKHLDESHLLKGDKNLVGSEVKIYSLDPSTQWFSATVINGNPASKTLQVNC  
EEIPALKIVDPSLIHVEVVHDNLVTCGNSARIGAVKRKSENNGTLVSKQAKSCSEASPSMCPVQSVPTTVFKEI  
LLGCTAATPPSKDPRQQSTPQAANSPPNLGAKIPQGCHKQSLPEEISSCLNTKSEALRTKPDVCKAGLLSKSSQI  
GTGDLKILTEPKGSCQTQPKTNTDQENRLESVPQALTGLPKECLPTKASSKAELEIANPPELQKHLEHAPSPSDVS  
NAPEVKAGVNSDSPNNCSGKKVEPSALACRSQNLKESSVKVDNESCCSRSNKIQNAPSRKSVLTDPAKLKKLQQ  
SGEAFVQDDSCVNIVAQLPKCRECRLDSLRLKDKKEQQKDSPVFCRFFHFRRLLQFNKHGVLVEGFLTPNKYDNEAI  
GLWLPLTKNVVGIDLD TAKYILANIGDHFCQM VISEKEAMSTIEPHRQVAWKRAVKGVREMCDVCDTTIFNLHWV  
CPRCGFGVCVDCYMRKRNCCQGAAYKTF SWLKCVKSQIHEPENLMPTQIIPGKALYDVGDIVHSVRKWKIGAN  
CPCSNRQFKLFSKPASKEDLKQTS LAGEKPTLGAVLQQNPSVLEPAAVGGEAASKPAGSMKPACPASTSPLNWL  
DLTSGNVNKENKEKQPTM P ILKNEIKCLPPLPPLSKSSSTVLHTFNSTILTPVSNNNSGFLRNLLNSSTGKTENGL  
KNTPKILDDIFASLVQNKTTS DL SKRPQGLTIKPSILGFDTPHYWLCDNRLCLQDPNNKSNWNVVFRECWKQGP  
VMVSGVHHKLNSSELWKPESEFRKEFGEQEVDLVNCR TNEIITGATVGDFWDGFEDVPNRLKNEKEPMVLKLDWPP  
GEDFRDMMP SRFDLMANIPLPEYTRRDGKLN LASRLPNYFVRPDLGPKMYNAYGLITPEDRKYGTTNLHLDVSD  
AANVMVYVGIPKGQCEQEEVLKTIQDGDSELT IKRFIEGKEKPGALWHIYAAKDTEKIREFLKKVSEEQGGQEN  
PADHDP IHDQSWYLDRLRRLHQEYGVQGWAI VQFLGDVVFIPAGAPHQVHNLYSICIKVAEDFVSP EHVKHCFW  
LTQEFRLYSQTHTNHEDKLQVKNVIYH AVKDAVAMLKASESSFGKP

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**FIGURE 842**

CTAACCCAGTATGTTCTTCTTTTTTATGTAAGGNACAGCTTTCTCCACAGAGTCCTTTCTGCTGGTGAGGACAGC  
ATTCTGAGCAGGGCTTTGTTCTCTATGTGCATTAGGACTTTTATCATGCCCTTGTTCTGTGTGTAGTTACTTGA  
CAGCATCAAATGCCGCCTCTTCCTAATGTCCTTCAAGTTTTTCATGAACTAGCAACCCACCTTCCACCATGGTTC  
TGGGCGCCTGATTTTGCTGTGACTC

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**FIGURE 843**

GAAGGGGGCTGGGCCGGAGCCCCAGGCTCAGAGGAGGAGGAGGAGGAGCAGGAGGAGAGCCTGGCGGTGGCGGA  
GCAGGGAAAGGGGCGCAGGGAGTCTGAAAGCTCCAGGAGCAGCAGAAGGCCAGTGGCCGGTCTCCAACCAGTAC  
TGAGAAGCGCATGAGCTTCGAGTCCATTTCTTCCCTGCCAGAGGTTGAGCCGGACCCTGAGGCTGGGAGTGAGCA  
AGAGGTATTTCTGCTGTGGAAGGGCCAGTGCCGAGGAGACGCCTTCAGACACAGAATCTCCAGAAGTCCTGGA  
GACACAGCTTGATGCCCACCAGGGCCTTCTGGGGATGGACCCCCCAGGTGACATGGTGGAATTCGTGGCAGCTGA  
GAGCACTGAGGACCTTAAGGCCCTGAGCAGCGAGGAGGAAGAAGAAATGGGAGGTGCCGCCAGGAGCCTGAGAG  
CCTTCTGCCACCCTCTGTGCTGGACCAGGCCAGCGTCATTGCGGAGCGATTGTGTCAGCAGCTTCTCTCGGCGGAG  
CAGCGTGGCACAGGAGGACAGCAAGTCCAGTGGCTTTGGGAGCCCCGCGCTGGTCAGCCGGAGCAGCAGCGTGCT  
CAGCCTGGAGGGCAGCGAGAAGGGCCTGGCCCCGGCATGGCAGTGCCACAGACTCCCTCAGCTGTGAGCTCTCCCC  
AGAAGTGGACATCAGTGTGGGGGTGGCCACAGAGGACAGCCCTTCTGTCAATGGGATGGAGCCCCCAAGCCCAGG  
CTGCCCAGTGGAGCCTGACCGGTCTTCCCTGCAAGAAGAAGGAATCAGCACTCTCCACCCGAGACCGGTGTTGCT  
AGACAAGATTAAGAGCTGGTGGCCCCACTGCACCCCCGCATCGTGCAGCTCTCCACGTAATGGACAGCCACGTG  
AGCGAGCGCGTCAAGAACAAGGTCTACCAGCTGGCCCCGCCAGTACAGCCTCCGGATCAAGAGCAACAAGCCAGTG  
ATGGCCAGGCCACCCTGCAGTGGGAAAAGGTGGCCCCCTGAGAGGGATGGGAAGAGCCCCACTGTGCCCTGTCTA  
CAGGAAGAGGCTGGAGAGCCATTAGGTGGCAAAGGTAAGAGGAAGCCGGTGCTGTCTCTATTTGACTATGAGCAG  
CTGATGGCCCAGGAGCACAGCCCTCCCAAGCCCTCCTCGGTGGGGAGATGTCACCACAGCGTTTCTTCTTCAAC  
CCGTCTGCTGTGTCAGCCAGAGGACCACCTCGCCTGGGGGCCGGCCCTCCGCCCGGAGCCCCCTCAGCCCCACAGAG  
ACCTTCAGCTGGCCCCGACGTCCGTGAGCTCTGCTCCAAGTATGCCTCCCGCGATGAGGCACGCCGAGCAGGGGGC  
GGCCGGCCCCGCGGCCACCCGTCAACAGGAGCCACTCGGTGCCGAGAACATGGTAGAGCCACCTCTGTGCGGC  
AGGGTGGGCCGCTGCCGAGCCTGAGCACCAAGAGGGGCCGGGAGGCGGAGAGGCTGCCAATCCCTGGGCCT  
CTGCCCCAGAGCAAGCCGGATGGAGGCGAGACCCTGTATGTCACTGCAGACCTCACCTGGAGGACAACCGGCGG  
GTGATTGTATGGAGAAGGGACCCCTTCCAGCCCCACTGCAGGGCTGGAGGAGAGCAGTGGCCAGGGACCAAGC  
TCACCGGTGGCCCTGCTGGGGCAGGTTTCCAGACTTCCAGCAGTCTGCAGAGTGCCAGCCGAAGGAAGAGGGTTCC  
AGGGACCCGGCAGACCCGAGCCAGCAGGGCAGAGTGAGAAACCTTAGAGAGAAGTTCCAGGCCTTGAACCTCTGTC  
GGTTGATGCTGACTCCTGGGGGAGGGAGGAGTCATGTTGGAGGTTGGGGAAGAACCTGGGCATCCTTCCCCTCAA  
GCCTGGGCTCATGGAGCCCCTGCCCAGGGCCCTCAGGTGGGCGGAAAGTCCATCCCCTCCGCCCTTCAGGAAGGA  
TGCTCCCGTGTGCAGGGGTCTCCTGCCTGTGCCATCCACTGGGGCTCGAGACAATTTCCCACTCACCTGTGAGGC  
CGGTGTGGCTGCTTCCCTTGTAATAGTTGTTCTCTGGTAAGAAGCCAAATATTTAAGCTCACTTCTTCCCAGAG  
AGAGGAAGCTCTGCTCAGGCCTCCAGCGTTGGCTGGCCATGGCCACAGCCAGATGGAGGAGCCCATCCCCAGGAG  
ACTCAGGCAGTGGCCTGGAGAGGCTTTGTTCTGTAAACGGTGCCTTTTCTTAGGGTCCAGGCAGGAATGAAGCCAA  
TAATTTATTGCTTTCCATTCTGTGGTATGATGTGCGTGTGCGTGAGTGTGTGGCCCCTGTTTATTCCCCTCCTGT  
CAAGAATGAAGTGGATTTCAGTTTCAAGTACTTTTGAGGGTTGTTGTGCTGACCCTGTGGTTGTGCTGATGTACAC  
ACATTTCAATTATTTGCCAATGGTGCAATAACCACTGCTGACCAACAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 844**

AATCCAACCTCACCTCC**ATG**TTCAAGGATGTCCCTCTGACTGCAGAAGAGGTGGAATTTGTGGTGAAAAAGCATT  
GAGCATGTTCTCCAAAGATGAATCTTCAAGAAATACCACCTTTGGTCTATCAGCTTCTGGTTCTCTCCTCCAAGGG  
AAGCAGAAAGAGTGTTTTGGAAGGAATCATAGCCTTCTTCAGTGCAGTATAGCAGCACAATGAGGAACAGAG  
TGGTGACGAGCTATTGGATGTTGTCACTGTGCCATCAGGTGAACTTCGTCTATGTGGAAGGCACCATTATTCTACA  
CATTGTGTTTGCCATCAAATTGGACTATGAACTAGGCAGAGAACTCGTGAAACACTTAAAGGTAGGACAGCAAGG  
AGATTCCAATAATAACTTAAGTCCCTTCAGCATTGCTCTTCTGTCTGTAAACAAGAATACAAAGATTTTCAGGA  
CCAGGTGCTTGATCTTTTAAAGACTTCGGTTGTAAAGAGCTTAAAGGATCTTCAACTCCTCCAAGGCTCAAAATT  
TCTTCAGAATCTAGTTCCTCATAGATCTTATGTTTCAACCATGATCTTGGAAGTAGTGAAGAATAGCGTTCATAG  
CTGGGACCATGTTACTCAGGGCCTCGTAGAACTTGGTTTCATTTTGATGGATTTCATATGGGCCAAAGAAGGTTCT  
TGATGGAAAACTATTGAAACCAGCCCAAGTCTTCTAGAAATGCCAAACCAGCATGCATGTAAGCTCGGAGCTAA  
TATCCTGTTGGAACTTTTAAAGATCCATGAGATGATCAGACAAGAAATTTTGGAGCAGGTCTCAACAGGGTTGT  
TACCAGAGCATCTTCTCCCATCAGTCATTTCTTAGACCTGCTTCAAATATCGTCATGTATGCACCCTTAGTTCT  
TCAAAGTTGTTCTTCTAAAGTCACAGAAGCTTTTGACTATTTGTCCTTTCTGCCCCCTTCAGACTGTACAAAGGCT  
GCTTAAAGCAGTGACGCCCTTCTCAAAGTCAGCATGTCAATGAGAGACTGCTTGATACTTGTCTTTCGGAAAGC  
TATGTTTGCCAACCAGCTTGATGCCCCGAAATCTGCAGTTGCTGGGTTTTTGCTGCTCCTGAAGAACTTTAAAGT  
TTTAGGCAGCCTGTCATCCTCTCAGTGCAGTCAGTCTCTCAGTGTGAGTTCAGTTCATGTGGATGTTTCACAGCCA  
TTACAATTCTGTCGCCAATGAAACTTTTTGCCTTGAGATCATGGATAGTTTGAGGAGATGCTTAAAGCCAGCAAGC  
TGATGTTGACTCAGCTTTATGAGGGGTTTTATGATGTTCTTGAAGGAAGTCTCAGCTGGCTAATTCAGTCAT  
GCAAACCTGCTCTCACAGTTAAACAGTTCTATGAGCCAAACCTGATCTGCTGCCTCCTCTGAAATTAGAAGC  
TTGTATTCTGACCCAAGGAGATAAGATCTCTCTACAAGAACCCTGGATTATCTGCTGTGTTGTATTACAGCATTG  
TTTGGCCTGGTATAAGAATACAGTCATACCCTTACAGCAGGGAGAGGAGGAAGAGGAGGAGGAAGAGGCATTCTA  
CGAAGACCTAGATGATATATTGGAGTCCATTACTAATAGAATGATTAAGAGTGAGCTGGAAGACTTTGAACTGGA  
TAAATCAGCAGATTTTTCTCAGAGCACCAGTATTGGCATAAAAAATAATATCTCTGCTTTTCTTGTGATGGGAGT  
TTGTGAGGTTTTAATAGAATACAATTTCTCCATAAGTAGTTTCAGTAAGAATAGGTTTGAGGACATTCTGAGCTT  
ATTTATGTGTTACAAAAACTCTCTGACATTCTTAATGAAAAAGCGGGTAAAGCCAAACTAAAATGGCCAACAA  
GACAAGTGATAGTCTTTTGTCATGAAATTTGTGTCCAGTCTTCTCACTGCTCTTTTCAGAGTCTTGCTATGGAG  
ATACACTTCAATTCCTACTTCAGTGGAAGAGTCGGGAAAAGAAAGAGAAAGGAAAGAGCATCTCACTGCTGTGCTT  
GGAGGGTTTACAGAAAATATTAGTGCTGTGCAACAGTTCTATCAGCCCAAGATTTCAGCAGTTTCTCAGAGCTCT  
GGATGTCACAGATAAGGAAGGAGAAGAGAGAGAAGATGCAGATGTCAGTGTCACTCAGAGAACAGCATTCCAGAT  
CCGGCAATTTTCAGAGGTCCTTGTTGAATTTACTTAGCAGTCAAGAGGAAGATTTAATAGCAAAGAAGCCCTCCT  
GCTAGTCACGGTTCTTACCAGTTTGTCCAAGTTACTGGAGCCCTCCTCTCCTCAGTTTGTGTCAGATGTTATCCTG  
GACATCAAAGATTTGCAAGGAAAACAGCCGGGAGGATGCCTTGTTTTGCAAGAGCTTGATGAACTTGCTCTTCAG  
CCTGCATGTTTCGTATAAGAGTCTGTCATTCTGCTGCGTGACTTGTCAGGATATCCACGGGCATCTGGGAGA  
TATAGACCAGGATGTAGAGGTGGAGAAAACAAACCACTTTGCAATAGTGAATTTGAGAACGGCTGCCCCCACTGT  
CTGTTTACTTGTTCTGAGTCAGGCCGAGAAGGTTCTAGAAGAAGTGACTGGCTAATCACCAGCTTAAGGGACA  
AGTGAGCCAAGAAACCTTATCAGAGGCCTCTTCTCAGGCAACCTTACCAAATCAGCCTGTTGAGAAAGCTATCAT  
CATGCAACTGGGAACCTCTGCTTACATTTTCCACGAGCTGGTGACAGACGCTCTGCCATCAGGCAGCTGTGTGGA  
CACCTTGTTAAAGGACTTGTTGCAAAATGTACACCACACTTACAGCCCTTGTCAGATATTATCTCCAGGTGTGTCA  
GAGCTCCGGAGGAATTCAAAAAATATGAAAAAGCTGGTGAAGCTGTCTGGTTCTCATCTGACCCCCCTGTGTTA  
TTCTTTTCAATTTCTTACGTACAGAATAAGAGTAAGAGCCTGAACTATACGGGAGAGAAAAAGGAGAAACCTGCTGC  
CGTTGCCACAGCCATGGCCAGAGTTCTTCGGGAAACCAAGCCAATCCCTAACCTCATCTTTGCCATAGAACAGTA  
TGAAAAATTTCTCATCCACCTTTCTAAGAAGTCCAAGGTGAACCTGATGCAGCACATGAAGCTCAGCACCTCACG  
AGACTTCAAGATCAAAGGAAACATCCTAGACATGGTTCTTCGAGAGGATGGCGAAGATGAAAATGAAGAGGGCAC  
TGCATCAGAGCATGGGGGACAGAACAAAGAACCAAGCAAGAAG

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**FIGURE 845**

MFKDVPLTAEVEFVVEKALSMFSKMNLEIPPLVYQLLVLSKGSRKSVLEGIIAFFSALDKQHNEEQSGDELL  
 DVVTVP SGELRHVEGTIILHIVFAIKLDYELGRELVKHLKVGQQGDSNNNLSPFSIALLLSVTRIQRFDQVLDL  
 LKTSVVKSFKDLQLLQGSKFLQNLVPHRSYVSTMILEVVKNSVHSDHVTQGLVELGFILMSYGPKKVLDGKTI  
 ETSPSLSRMPNQHACKLGANILLETFKIHEMIRQEILEQVLNRVVTRASSPISHFLDLLSNIVMYAPLVLQSCSS  
 KVTEAFDYLSFLPLQTVQRLLKAVQPLLKVSMSMRDCLILVLRKAMFANQLDARKSAVAGFLLLKNFKVLGSL  
 SSQCSQSLSVSQVHVDVHSHYNSVANETFCLEIMDSLRRCLSQQADVRLTYEGFYDVLRRNSQLANSVMQTLLS  
 QLKQFYEPKPDLLPPLKLEACILTQGDKISLQEPLDYLLCCIQHCLAWYKNTVIPLQQGEEEEEEAFYEDLDD  
 ILESITNRMIKSELEDFELDKSADFSQSTSIGIKNNISAFVLMGVCEVLEYNFSISSFSKNRFEDILSLFMCYK  
 KLSDILNEKAGAKATKMANKTSDSLLSMKFVSSLLTALFRVLLWRYTSIPTSVESGKKEKGKISLLCLEGLQK  
 IFSAVQQFYQPKIQQFLRALDVTDKGEGEREDADVSVTQRTAFQIRQFQRSLLNLLSSQEEDFNSKEALLVTVL  
 TSLSKLLEPSSPQFVQMLSWTSKICKENSREDALFCKSLMNLFSLHVSYSKSPVILLRDLSDIHGHLGDIDQDV  
 EVEKTNHFAIVNLRTAAPTIVCLLVLSQAQKVLVEVDWLITKLKGQVSQETLSEASSQATLPNQPVKAIIMQLGT  
 LLTFFHELVTALPSGSCVDTLKDLCKMYTTLTALVRYYLQVCQSSGGIPKNMEKLVKLSGSHLTPLCYSFISY  
 VQNKSKSLNYTGEKKEKPAAVATAMARVLRETKPIPNLIFAIEQYEFKFLIHLSSKSKVNLMQHMKLSTSRDFKIK  
 GNILDMVLREDGEDENEETASEHGGQNKPAKK

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**FIGURE 846A**

GGACGAGTCGAGCCTCTGCGGCGCCGCGGGCTCCAGAAGGAGCTGAGCCTGCCACGCCGAGGACGTGGCTGCCG  
CAGCGGGAACCGCAAGAGCTTGGTGGTAGGAACGCCCTCCCCGACCCCTCTCCCGGCCCTGTGCGCATTGTGGT  
CCCAACGGCAGGCAGCAGCCCCCTTGGATAGTCCTCGGAATTTCTCGGCTGCCTCTGCCCTAAATTTCCCTTTGC  
CCGGAGGGCAGACGGCAGAAGATGGTCCCTCGCGTCTCTCCCATCTTCCGGCTATGGAACCAACACACCCAGCTC  
CACCTCTCGTCAAGCTCATCCTCCCGGGAACGTCTCCACCAGCTTCCCTTCCAGCCGACGCCGGACGAGCTGCA  
CTTCTGTCCAAGCACTTCCGCAGCTCAGAGAATGTGCTTGATGAGGAAGGCGGCCGGTCACCCCGCTCCGACC  
CCGCTCTCGCAGTCTCAGCCCGGGCCGTGCAACGGGGACCTTCGACAATGAGATTGTATGATGAATCACGTGTA  
CCGGGAGAGGTTCCCCAAGGCCACAGCACAGATGGAGGGCCGTCTGCAGGAGTTCTTGACGGCCTACGCGCCCGG  
CGCCCGGTGGCGCTGGCTGATGGCGTCTTGGGCTTCATCCACCACCAGATCGTCGAGCTGGCCCGAGACTGCTT  
GGCCAAGTCTGGCGAGAACCTCGTCACCTCCCGCTACTTCTAGAGATGCAGGAGAAGCTGGAGCGGCTTCTGCA  
GGATGCCCCATGAGCGTTCGGACAGTGAGGAGGTGAGCTTCATCGTCCAGCTTGTCGGGAAACTGCTGATCATCAT  
CTCACGGCCAGCTCGGCTGCTGGAGTGTCTGGAGTTTGACCCCTGAGGAATTTTACCACCTGCTGGAGGCGGCTGA  
GGGCCATGCGCGGGAGGGCCAAGGCATTAAGACTGACCTTCCACAGTACATCATTGGGCAGCTGGGCCTGGCCAA  
GGACCCCTGGAGGAGATGGTGCCACTGAGTCACCTCGAAGAAGAACAGCCCCCAGCACCTGAGTCCCCAGAGAG  
CCGCGCCCTGGTTCGGCCAGTCACGGAGGAAGCCATGCGAAAGCGACTTTGAGACCATCAAACCTCATTAGCAACGG  
AGCCTATGGGGCCGTCTACCTGGTTCGGCACCGTGACACACGGCAGCGCTTTGCCATCAAGAAGATCAACAAACA  
GAACTTGATCCTGCGTAACCAGATCCAGCAGGTCTTTGTGGAGCGTGACATTCTCACCTTTGCCGAGAACCCTT  
TGTGGTCAGCATGTTCTGCTCCTTTGAGACCCGGCGCCACCTATGTATGGTCATGGAATACGTGGAAGGCGGCGA  
CTGCGCCACGCTCCTGAAGAACATGGGCCCCGTGCCCCGTGGACATGGCCCGCCTGTACTTCGCCGAGACGGTGT  
GGCGCTGGAGTACCTGCATAACTATGGCATCGTGACCGTGACCTCAAACCAGACAATCTGCTCATCACCTCGCT  
TGGCCACATCAAGCTCACGGACTTCGGCCTGTCCAAGATCGGCCTCATGAGCATGGCCACCAACCTCTATGAGGG  
CCACATCGAGAAGGACGCCCCGAGAGTTTCATCGACAAGCAGGTGTGTGGGACGCCGGAGTACATAGCCCCGAGGT  
GATCTTCCGCCAGGGCTATGGGAAGCCAGTGGACTGGTGGGCCATGGGCGTCGTCCTCTATGAGTTTCTGGTGGG  
CTGCGTGCCTTTCTTTGGAGATACCCCCGAGGAACCTTTCGGTTCAGGTGGTCAGCGATGAGATCATGTGGCCAGA  
GGGAGATGAGGCCCTTCCAGCAGACGCCCAGGACCTCATCACAGGTGCTCCGGCAGAGCCCGCTGGACCGTCT  
GGGCACTGGTGGCACCCACGAAGTGAAGCAGCACCCCTTTTTCTGGCCCTGGACTGGGCAGGGCTTCTCCGACA  
CAAAGCCGAGTTCTGTGCCCCAGCTCGAAGCCGAGGATGATACCAGCTACTTTGACACACGTTCCGAACGTTACCG  
CCATCTGGGCTCCGAGGACGACGAGACCAATGATGAAGAATCGTCCACAGAGATCCCCAGTTCTCCTCCTGCTC  
CCACCGGTTTCAGCAAGGTCTACAGCAGCTCTGAGTTCTTGGCCGTCCAGCCCACTCCTACCTTCGCTGAAAGGAG  
CTTCAGTGAAGACCGGGAGGAGGGGTGGGAGCGCAGCGAAGTGGACTATGGCCGCCGGCTGAGTGCTGACATCCG  
GCTGAGGTCTTGGACATCCTCTGGATCCTCCTGTGAGTCATCTTCGTCCCAGCCGAGCGGGGTCCAGCCCATC  
TCTCCTGAATACCATCAGCCTGGACACAATGCCAAGTTTGCTTCTCATCAGAGGATGAGGGGGTAGGCCCAGG  
CCCTGCAGGCCCCAAGAGGCCCGTCTTCACTTAGGGGAGCCTGACCCCCACCAGCGGCCACCCAGTGATGCC  
CAAGCCCTCGAGCCTTTCTGCCGACACAGCTGCTCTCAGCCACGCCCGCTACGGAGCAATAGCATCGGCGCCCG  
ACACTCCACACCAAGGCTCTGGATGCCGCGCGGGCCGCCGCTTGGGGGCCCAAGAGACCCAGCCCTGAGAA  
GTCCAGAGCCTCCTCCAGCGGTGGCAGTGGTGGCGGAGTGGGGGCCGCGTGCCCAAGTCAGCCTCTGTCTCTGC  
CCTGTCCCTCATCATCACGGCAGATGATGGCAGCGCGGCCCTCATGAGCCCCCTTTCCCCGCGCTCTCTGTCT  
CTCGAACCCTCGTCCCGTGACTCTTCGCCGAGCCGAGACCCGTCCCCGTGTGTGGCAGCCTGCGGCCCCCAT  
CGTTATCCACAGCTCTGGCAAGAAGTACGGCTTCAGCCTGCGGGCGATCCGCGTCTACATGGGTGATAGCGACGT  
CTACACTGTGCACCACGTCTGTCTGGAGTGTGGAGGACGGAAGCCCCGCCAGGAGGCGGGCTGCGGGCTGGGGA  
CCTCATCACCCACATCAACGGGGAGTCAGTGCTGGGGCTGGTGACATGGACGTCGTGGAGCTGCTGCTGAAGAG  
CGGCAACAAGATATCCCTGCGGACCACAGCCCTGGAGAACACCTCCATCAAGGTGGGGCCCCGCCGGAAGAATGT  
GGCCAAGGGCCGCATGGCACGCAGGAGCAAGAGGAGCCGTGGCGGGGAGACCCAGGATCGGCGGAAGTCACTTTT  
CAAGAAGATCTCCAAGCAGACCTCCGTGCTGCACACCAGCCGAGCTTCTCCTCCGACTCCACCACTCACTGTC  
ATCCAGTGAGAGCCTCCCCGGCTCGCCACCCACAGCCTCTCCCCAGCCCCACCACTCCCTGCCGAAGCCAGC  
CCCTGATGTCCCAGCAGATACCACTGCATCCCCACCCAGCGCATCCCCGAGCTCCAGCAGCCCCGCTCCCCAGC  
TGCTGCTGGCCACACCCGCCCGAGCTCCCTGCACGGCCTGGCTGCCAAGCTTGGGCCACCCCGCCCCAAGACTGG  
CCGCCGAAGTCCACCAGCAGCATCCCGCCCTCCCCGCTGGCCTGCCCCGCCATCTCCGCGCCCCCACCCGCTC



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**FIGURE 846B**

GCCCTCGCCCCCTGCCCGGGCACCCGCCCGCACCTGCCCGATCCCCGCGGCTGCGCCGGGGCCAGTCAGCTGACAA  
GCTGGGCACAGGGGAGCGGCTGGATGGGGAGGCGGGGCGGCGCACTCGTGGGCCAGAGGCCGAGCTCGTGGTCAT  
GCGGCGGCTGCACCTGTCCGAGCGCCGAGACTCCTTCAAGAAGCAGGAGGCCGTGCAGGAGGTTAGCTTCGATGA  
GCCGAGGAGGAGGCCACTGGGCTGCCACCTCAGTGCCACAGATCGCCGTGGAGGGCGAGGAAGCCGTGCCAGT  
AGCTCTCGGGCCACCGGAAGAGACTGATCCCCCTGCCAGGTCTCTCCCTGGCATCAAAGTTACGCGTTTTCTTGT  
GCAATGTTTTTCCGTAAAGTCATGCCTGGATGGGGACTGAGCCACCAGCCTGACACCCAGAAGGCGAGAAGCCA  
TCTCGGTCTTGTGGAAGGTGGAGACATCGCTTGTGTTCTGGTGTCAATCAGGGGGCTGGATGGGGCAAGAATG  
GGGGACAAGGGTGGCTTTGTAAATAGCAGCAAATCCCTGCAACTAATTTATTACTTTTTTTTTCTTTTTTTTTT  
TTTTTTTGAGACAGAGTCTCACTCTGTTGCCCGGCTGGAGTGACGCGCGTGATCTCAGCTCACTGCAACCTCC  
GCCTCCCAAGTTCAAGCGATTGTCTGCCTCAGCTTCCCAAGTGGCTGGGATTACAGGCGCCACCCTATGCCC  
AGCTAATTTTTTGTATTTTTAGTACAGACGGGGTTTACCCTGTTGGTTCAGGCTGGTCTCGAACTCCTGACCTCA  
TGATTTGCCTGCCTTTGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACTGGGGCCAGCCTAATTTATTACT  
TTTTATAAGCGATAGCCGTACTGAGCCGCCCCCTGAAGGCGGCTGCCAGGTCTTGCCCCAGGCACCTGGGACTCT  
GTTTGCAGGCCCTGCCCTCTGGGCTGAGAAGGATGCACCTTTGGACAAGTCATCTGTGTTTGTGTTTTCCAGTTTT  
TCTGTACTTTTTAAGTGTTTTGTGTTACCTGGTCTCATTCCCTCCCCACACCTACCCATTTGAGGGGATGGAGT  
TGAAGTCACCTGGTCACCTGTACCGGCCAGTTCGGCTACAACCTGGAGTGTCCGTAAACAATTCTCTCACCCA  
CAAAACAATGTAATCCCAGCGATGGACTGGATTCTGAAGGCCACTTCCACCATCATAGCTGCCATGCCAGGCA  
GTGCCTGCTCTATATATAGAGTCTGCCTCCAATCTGCTGGCTTCAGCCTGGAGAAGGGATATGGGAGCTGGAGC  
TTTGATGGATGAATAGGTGTTACCGGATCTGGGCAGAGGGGTCATCCGCTCCCCAGGTGGGCACTGATAAAGGA  
AGGTACAGGCCTCACCTGGAAGTCCAAGGCAGCCTCCAGAAATGCTCGGCTGTCTCGGGGCACGCTCCAGTATG  
CCAGTCTGCGGGATTACGTCCAGCTACTTCCAGAAACACTCAGTGTCCCCTCCCCTCAGGCTCTGCCTTGGCCT  
GGCCTTGTCCAGTCTACCCTGGACAAGATGCCGTGTGTTTGGAGGCCAGCAGAGTAAGCCCTTGCCGTGATGTG  
TCTGAAACACCTGTTAGGGGTTCCCTCCATATGTGAGAGCCTCTCTGGGATGAAGTTCAAGCCAGAAAACCCAGT  
CGAGGCTCAAGTTTGAATTTAGCTTCACTGTGTGGCTCTGGGAAAATGGCTTTCCCACTCTGTGCCTCAGTTTC  
CTTGTGTTTACAAGACTAATCCCATTGACTGTTTATTAAGCACCTACTGTGTGCCAAGCGTTTTACGTGGCTTC  
TCCCTCAGCCAGCCTTGAGAAGGCTGGAGGTGGTGTGTCATCACCTCCATTTTACAGACAAAGCAGCTGAGACCCCA  
GCGAGGGGCGGAGACCTGTCCACGATCACCCAGCAGGAGTCGTGGCAGAACGGAGCATCAGCCAGACCCTGTTG  
TGGGCGTTGTCATCAAGGGAGCTTGAATGGAGGGTCTGGTGTGATACAGCCGACTCCAGCCCCAGCTCATCCC  
CCATGATGCTGTGTGACCCACTGGGCACTCTGGTGAGGGAGCTTCCAGACATCAACAGCCCCTCTGCTTCCCT  
TTCTGAGTCCCCTGTCCAGCACTGCCTAGTGTGGAGGGTAGACCAAGGCTGTGCATGATTACCCCCCTCCTTCC  
ATCCTGGAGCTGGCAGTGAATAAAAGCCCGTATTTAC

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**FIGURE 847**

DESSLRRRGLQKELSLPRRGRGCRSGNRKSLVVGTPSPTLSRPLSPLSVPTAGSSPLDSPRNFS AASALNFPFA  
RRADGRRWSLASLPSSGYGTNTPSSSTLSSSSSSSRERLHQLPFQPTDELHFLSKHFRSSENVLDEEGGRSPRLRP  
RSRSLSPGRATGTFDNEIVMMNHVYRERFPKATAQMEGRLOEFLTAYAPGARLALADGVLGFIHHQIVELARDCL  
AKSGENLVTSRYFLEMQEKLRLQDAHERSDSEEVSFIVQLVRKLLIIISRPARLLECLEFDPEEFYHLLAEAE  
GHAREGQGIKTDLPQYIIGQLGLAKDPLEEMVPLSHLEEEQPPAPESPESRALVGQSRRKPCESDFETIKLISNG  
AYGAVYLVRRHRDTRQRFIAKKINKQNLILRNQIQQVFVERDILTFAENPFVVS MFCSFETRRHLCMVMEYVEGGD  
CATLLKNMGPLPVDMARLYFAETVLALEYLHNYGIVHRDLKPDNLLITSLGHIKLTDFGLSKIGLMSMATNLYEG  
HIEKDAREFIDKQVCGTPEYIAPEVIFRQGYGKPVDDWAMGVVLYEFLVGCVPFFGDTPEELFGQVVSDEIMWPE  
GDEALPADAQDLITRLLRQSPDLRLGTGGTHEVKQHPFFLALDWAGLLRHKAEFVPLEAEDDTSYFDTRSERYR  
HLGSEDDDETND EESSTEIPQFSSCSHRFSKVYSSSEFLAVQPTPTFAERSFSEDREEGWERSEVDYGRRLSADIR  
LRSWTSSGSSCQSSSSQPERGPPSPSLLNTISLDTMPKFAFSSSEDEGVGPGPAGPKRPVFI LGEPDPPPAATPVMP  
KPSSLSADTAALSHARLRNSIGARHSTPRPLDAGRGRRLGGPRDPAPEKSRASSSGGSGGGSGGRVPKSASVSA  
LSLIITADDGSGGPLMSPLSPRSLSSNPSSRDSSPSRDPSPVCGSLRPPIVIHSSGKKYGFSLRAIRVYMGDSDV  
YTVHHVVWSVEDGSPAQEAGLRAGDLITHINGESVLGLVHMDVV ELLKSGNKISLRRTALENTSIKVG PARKNV  
AKGRMARRSKRSRRRETQDRRKS LFKKISKQTSVLHTSRFS SGLHHSLSSES LPGSPTHSLSPSPTTPCRSPA  
PDVPADTTASPPSASPSSSSPASPAAAGHTRPSSSLHGLAAKLGP RPRTGRRKSTSSIPPSPLACPPISAPPPRS  
PSPLPGHPPAPARSPRLRRGQSADKLGTGERLDGEAGRRTRGPEAE LVMMRRLHLSERRDSFKKQEA VQEVSFDE  
PQEEATGLPTSV PQIAVEGEEAVPVALGPTGRD

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**FIGURE 848**

AGAAGAAGCTGGCCAAGGATATGGGAGCAACCACC**ATG**GACCAGAAGTCTCTCTGGGCAGGTGTAGTGGTCTTGC  
TGCTTCTCCAGGGAGGATCTGCCTACAACTGGTTTGCTACTTTACCAACTGGTCCCAGGACCGGCAGGAACCAG  
GAAAATTCACCCCTGAGAATATTGACCCCTTCCTATGCTCTCATCTCATCTATTCAATTCGCCAGCATCGAAAACA  
ACAAGGTTATCATCAAGGACAAGAGTGAAGTGATGCTCTACCAGACCATCAACAGTCTCAAAACCAAGAATCCCA  
AACTGAAAATTCTCTTGTCCATTGGAGGGTACCTGTTTGGTTCCAAAGGGTTCCACCCTATGGTGGATTCTTCTA  
CATCACGCTTGGAATTCATTAACCTCCATAATCCTGTTTCTGAGGAACCATAACTTTGATGGACTGGATGTAAGCT  
GGATCTACCCAGATCAGAAAGAAAACACTCATTTCACTGTGCTGATTCATGAGTTAGCAGAAGCCTTTCAGAAGG  
ACTTCACAAAATCCACCAAGGAAAGGCTTCTCTTGACTGCGGGCGTATCTGCAGGGAGGCAAATGATTGATAACA  
GCTATCAAGTTGAGAACTGGCAAAAGATCTGGATTTTCATCAACCTCCTGTCCTTTGACTTCCATGGGTCTTGGG  
AAAAGCCCCCTTATCACTGGCCACAACAGCCCTCTGAGCAAGGGGTGGCAGGACAGAGGGCCAAGCTCCTACTACA  
ATGTGGAATATGCTGTGGGGTACTGGATACATAAGGGAATGCCATCAGAGAAGGTGGTCATGGGCATCCCCACAT  
ATGGGCACTCCTTCACACTGGCCTCTGCAGAAACCACCGTGGGGGGCCCCTGCCCTCTGGCCCTGGAGCTGCTGGAC  
CCATCACAGAGTCTTCAGGCTTCCTGGCCTATTATGAGATCTGCCAGTTCCTGAAAGGAGCCAAGATCACGCGCC  
TCCAGGATCAGCAGGTTCCCTACGCAGTCAAGGGGAACCAAGTGGGTGGGCTATGATGATGTGAAGAGTATGGAGA  
CCAAGGTTCAAGTTCTTAAAGAATTTAAACCTGGGAGGAGCCATGATCTGGTCTATTGACATGGATGACTTCACTG  
GCAAATCCTGCAACCAGGGCCCTTACCCTCTTGTCCAAGCAGTCAAGAGAAGCCTTGGCTCCTTG**TGA**AGGATTA  
ACTTACAGAGAAGCAGGCAAGATGACCTTGCTGCCTGGGGCCTGCTCTCTCCAGGAATTCTCATGTGGGATTCC  
CCTTGCCAGGCTGGCCTTTGGATCTCTCTTCCAAGCCTTTCCTGACTTCCTCTTAGATCATAGATTGGACCTGGT  
TTTGTCTTCTGCTGAGCTGTTGACTTGTGGCCCTGAAGTACAATAAAAAAATTCATTTTGCTCCAGTA

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**FIGURE 849**

MDQKSLWAGVVLLLLQGGSAYKLVCYFTNWSQDRQEPGKFTPENIDPFLCSHLIYSFASIENNKVIIKDKSEVM  
LYQTINSLKTKNPKLKILLSIGGYLFGSKGFHPMVDSSSRLEFINSIILFLRNHNFDGLDVSWIYPDQKENTHF  
TVLIHELAEAFQKDFTKSTKERLLLTAGVSAGRQ MIDNSYQVEKLAKDLDFINLLSFDFHGSWEKPLITGHNSPL  
SKGWQDRGPSSYYNVEYAVGYWIHKGMPSEKVVVGIPITYGHSFTLASAETTVGAPASGPGAAGPITESSGFLAYY  
EICQFLKGAKITRLQDQQVPYAVKGNQWVGYYDDVKSMETKVQFLKNLNLGGAMIWSIDMDDFTGKSCNQGPYPLV  
QAVKRSLGSL

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**FIGURE 850A**

GGAATAACAAAACATGCTCTTAACCATCATCCCCCTCCAGAGAAGCTGGAGGAAATTTCCCCACCAGTGACAGT  
CATGAGAAAGACACAAGTTCCCAAAGCAAGTCTGACATCACAAGAGAATCATCTTTTACATCAGCCGACACTGGG  
AATTCAGTGTCTGCTTTTCCAAGTTATACAGGCGCAGGGATATCTACTGAAGGAAGCTCGGACTTCTCCTGGGGA  
TATGGTGAAGTTCGATCAAAATGCCACTGAAAAAGTCCAGACAATGTTACAGCCATTGATGAAGTCTTGTATGAG  
CAGAAGTTGAGTGTGCATACCAAGAGTCTACAAGAAGAGTGCCAACAGTGGACAGCTAGCTTTCTCACCTCAGG  
ATTCTAGGTAGGCAGATAATCACTCCAAGTGAAGGTTATAGATTGTATCCTAGATCCCCTTCTGCTGTTTCCGCT  
TCATATGAAACAACCTTGTCTCAAGAAAGAGATTCTACTATATTTGGTATAAGGGGAAAGAAGTTACATTTTTCA  
TCTTCTTATGCTCATAAAGCATCTTCCATTGCCAAATCCTCCAGCTTTTGTTCATGGAAGAGATGAGGAAGAC  
TCTATAATCGTCTCAGAAGGAATAATTGAGGAATACCTAGCATTCGATCACATAGATATAGAAGAGGGATTTCAT  
GGGAAGAAATCAGAAGCAGCTACAGAGAAACAGAAATTAGGGTATCCTCCCATTGCTCCATTTTACTGCATGAAA  
GAAGATGTCTTGTCTTATGTGTTTGACAGTGTATGGTGCAGGTTGTGAGCTGTATGGAGCAGTTGACACGTAGT  
CACTGGGAAGGATTGCTCTGATGATGAGAGTAATGTTGCAGTTACCAGACCCGATTGAGAAAGTTTCTGTGTG  
CTGAGTGAAGTACATCCTTTGGTGTTACCGCGAGTGCCACAGTCTAAGGTGCTGTACATTACCTCAAATCCGATG  
AGTCTCTGTCAAGCAAGCAGACATCAGCCAAATGTGAATGATCTCTTGGTTCATGGAATGCCTCTACAGCCAAGA  
AATCTCTCCCTAATGGACAAGCTCCTAGATCTTGATGACAAGCTACTTATGAGGCCTGGGTCCAGTACCATCCTT  
TCAACTCGAAATGGCCAAATCGAGCTGTGGAGTTTGTACATCATCTCTGTGCATACACAGTGCAGTCCACCAGG  
AGACGCAATCCACCACCACGAAGTCTTTCATCCGATCAGCAGAGCCATTGATGTGCTGAAACACCAAGATCTGTG  
GAAGAAATCCTCAGAGGAGCCCGAGTCCCAGTGGCACCCGACTCGCTCTCCTCTCCCTCACCAGCCCCCTGAGT  
CGAAATAATCTGCTACCACCTATTGGCACAGCTGAAGTGAACATGTGAGCACTGTGGGGCCACAAAGACAGATG  
AAACCCCATGGCGACTCTAGTCGAGCTCAAAGTGCAGTGGTGGATGAACCTAACTATCAGCAGCCACAAGAAAGG  
CTCCTTTTGGCCGACTTTTTTCCCCAGGCCCAACACAAGTCAATCATTTTTTGTGCTGGATACACAGTATCGTCGCTCA  
TGTGCAGTTGAGTATCCTCATCAGGCCCGACCTGGCAGGGGATCTGCAGGTCCTCAGTTACATGGGTCTACAAAA  
TCTCAAAGCGGAGGCAGACCAGTCTCTCGAACCAGGCAGGGACCAATAAGGCAAATGAGAAGAATCTATCAGGCTG  
CAGGAAACACGAGATTTTCATGAAGCAGTATTCAGTCATCAAGTGTGATGCAGAGCTTGTATAGAAGATCGACTAGAA  
ATCATCTTCATGAAGAGTGATTTTGGCACAAGTGACCGAAGAACAAAACACCATAGCAGCCAAAAATGACATGAG  
TGTTGTTTCTATCTCCAGTTACTGTCTCTTTTTCAGCAGAAATTAACCTATCCCATTGGAAGGCAAGTTTGTACCC  
AAAGATGCAACAGTGAATAATACCCAAATCACTGCTCATGTTATCTCTTAACAATGATCAGTTCAATCATATAGG  
ATTTGATGAGCTCACACATACACAAAAGCAGCAAAATCATCAGTGACAATATCACTGGCTTCAGAATACTTCAGC  
CTGTGTTTCAATTTCTGGAGAGTTGTACTCAGTTTTTAAGTCATTTTGTGTTGAAAATCTGACCTCATCAAAATAGAT  
GTCATTCCCTAAACTCTCTTTAGATGTCTTACCCTATCAGCAGATTAAATGGAAGGGGTGTGTAATACTAAAAACA  
TAAATGTTAAGCATTAGTATAAAGTAACTTCTGTAATAAATTATATCGCATATTTTTTTCAGATAGGACAGCTCAA  
CCTTACGATGCCTACCTGATGCCAGGTGATGCTTATTTTCTTCTTAAAGTAGGTTACTGGTCATATCTTTTTTCC  
AAATATTAAATGCACCTTGGCAGATATTCTCTGTCAGCTCTAAGGAAAGGAAATCAATTTAAAAATAATTTGTAG  
AATCTACTATTGAGCCACCAAAGTATAATTCCCTAAAAGTTAAGAAACCCTGGCAATTAATTCAGCATAAACAT  
ATCCTATAAACAGCAGGAGAGGTTTCTGATTTTACTGTGGACCTTTTCTTAAAGGGCATTTCATGAATGCA  
GCAACAGTTTTAACTATGGCTTACATTTATTTTAAATTTCACTAAATACAAATCTTGATTGTGTCATGCCAGTTTAA  
GATCTTATTAATTTTTCAGAAATGGATAAATTCAAATAATCATAAATTACGGTAACCTTTTATTATACCAAGGTGTT  
CTAATGCCATCATATGAAGACAGATGCTTCAAACAACCTGCATTAAATTTATTTTTTAAATAAAATTTAAATCTAT  
TTTTAACCTATTTGTAGTCACAAACCGAAAACGTGTGCTCTTTACCTTAGAGCTAAAGGCTTACTTTTATGCATAC  
GGTATATTTAATAGTCTACAAATCAAAGATTTAAACAGTCCCTTAAAAATTCATATATTTTTCATACCAACTCAT  
CTACATAGAAATGAAAATCTCTATTGTTCTCACAAACCATTACCATGAGTTCACTATAACAACCTGGATCAATATG  
GCTTGCCTTTTCAAAGTTAAAGAATCAGAAAGGGGCTGTAAAGAGTCATTTAGCCCAATTCCTTACCCTGTGTG  
TTTTCCCTCAAAGCCAGTGCAATTTTTTTTTTAAACAAAAACTGGACATGTTTAAATACATACAGTTTGACAAATT  
TGGATTTCACTCTTTGTTTTGATGTAGTAACTCTTTTATAAAAGGGAACAGATTTCAGACAAGCTCAGTGGCCCAA  
CTGAAGACATTGAGCAATTAATGGCAGGACTTCAGTAATCAGTGGCAGGACTACAACATACATCTCTTCATGCTA  
GGGAACACAGGCTCTCTATTATAAAGCTGACCAGGGCTATTGTTTTCCCTTTTCTCTCATCCTAAACACCATTC  
ATATTTTTCTAGGTCACATTTTAGTGGGATCATTTACAAAGCCCCCAGAACTTAATCATCATGTTTTACCTTTT  
TTATTGAATTATATACACCTCTTACAAAATGCTTGAAGTAATTTAACACCTGTACATCAGTACAAAACCTGGCT

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**FIGURE 850B**

GAGTAAATGAAGAGAGGATCTATTCAAGATCATTAAAGACCAAATGTAAACTGGGAAGTATGTGGAAGATAGCTG  
TCCAGCAAGTGTCTGGAAGGTGTTCTAGCTGGGTAGAGAGCCTATTCTAACAGACACGCACATCGCAGAAAGCAG  
CATGAACAGAACCACATCCTAGATAAGAGTTCTGTGTACAGAAGATCCATGGAGGCAAGTGCTGTCAGGAAGGAC  
ACTGCCTCCCTCCACCCTCCCAAATGTCACCACCAAGTTCCTTCAGGTGAGACCTCACACAATGTCAAGTGCTTT  
CTAGGAAATACTAAGATCAGGTTGAGAGATTCTGCTTGGTCTAGTCAATCTGAAAAATTCAGGCTGGAAAGACAC  
CTTTTCTCAAGAGCTGAATTGACTTTTGCCTTCAAATCCTGCCTGCACCTTGCCTACGATGGCATCAATTTACAC  
CTAAGGACCTTTGAAGAGAAAAATTCATTATTTCTTTTCTTTCTTGAGAGCAGATTTTTTCCCTCCTCCTTTGG  
AAGATTTGCAGTACTTTGCTTCCATCTGAGCCAGAAAATTGTCCATTTCTTTTGCCGATCCTTTTGTCTGCTCT  
GTTTGAGAAGTTAAACACAAGCTTTCACAACATTATCCATAGACAGAAAGTACCTAGTGTTGCCAGGGGCTGG  
AAAAGTGGAATAACTACTAATGGGTATGGAGTTTTTTTTGGAATGGTGAAAATGTCCTACAATTGGTGTTAATAAT  
TGTAAAACTTTGTAATAACACTTAAACCACCAAATTGTACACTTTAAAAGGACAAATAGAAGGTATGCGGTTAT  
GTCTTAAAAGAAGAAAAACAAAATACAACATTCCAAAGAAAATATTAGCAGTAGGAATCAGATCATTAAAGATGTG  
GCAACAACTGCCAAGTTTACCTGAATGGCTGCCTTCAGGCTATCCACGCCCTTCATCAAGCCCCAACTCCTTTCT  
GCTCATTTCTGCTTCTTTGGCCTCTTCCTGAGCCTGAAACAGGAACCTCACATGAGACTCAGGGCCACCAGGAAAT  
GCTTAAATACATACTCTTTCCCAAAGCAAATCTATAATTCTGTTTCAATTTTATGAATATATGAATAGACAAA  
ATGAATCGAATTACATAACTATGTCATTATTAAATGGCAACAATGCTGACAGCAAGCAGTAGATCCTCTGATTC  
CAATTACCATTTGTTTTTTACCCAATTCTATTTGCTAGAGGTAGTAAGTACTCTGGCACTCATAAATCACATGAT  
GATAAAAAGGAACATGAGGCCGGGTATGGTGGCTCACAACCTGTAATCCCCATACCTTGGGAGGCCAAGGTGGGAG  
GATCACTTGAACCTCAGGAGTTCAAGACCTGCCTGGGTAACATAGTGAGACCTCAGTTCTATAAAAAAGAAAAGAA  
ATGAGCCTGGTGTGGTGGCATGTGCTTGTAGTCCCAGCTACTAGGGAGGCTGAGGTGGGAAGATGGCTTCAGTCT  
GAGAGTTCAGGCTGCAATAAGCTGTGATCATGCCTCTGCACTCCAGCCTGGGTGATGGAGATGCCATCTCTTAGA  
AAAAAGAG

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**FIGURE 851**

GITKHALNHPPPEKLEEISPTSDSHEKDTSSQSKSDITRESSFTSADTGNSLSAFPSTGAGISTEGSSDFSWG  
YGELDQNATEKVQTMFTAIDELLYEQKLSVHTKSLQECCQWTASFPHLRILGRQIITPSEGYRLYPRSPSAVSA  
SYETTLSQERDSTIFGIRGKKLHFSSSYAHKASSIAKSSSFCSMERDEEDSIIVSEGIIEEYLAFDHIDIEEGFH  
GKKSEAATEKQKLGYPPIAPFYCMKEDVLAYVFDVWCKVVSCMEQLTRSHWEGFASDDENAVATRPDSESSCV  
LSELHPLVLPVVPQSKVLYITSNPMSLCQASRHQPNVNDLLVHGMPLOPRNLSLMDKLLDLDKLLMRPGSSTIL  
STRNWPNAVEFSTSSLSYTVQSTRRRNPPRTLHP ISTSHSCAETPRSVEEILRGARVPVAPDSLSSPSPTPLS  
RNNLLPPIGTAEVEHVSTVGPQRQMKPHGDSSRAQSAVVDEPNYQQPQERLLLPDFFPRPNTTQSFLDQTQYRRS  
CAVEYPHQARPGRGSAGPQLHGSTKSQSGRPVSRTRQGP

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**FIGURE 852A**

GGAATAACAAAACATGCTCTTAACCATCATCCCCCTCCAGAGAAGCTGGAGGAAATTTCCCCACCAGTGACAGT  
CATGAGAAAGACACAAGTTCCCAAAGCAAGTCTGACATCACAAGAGAATCATCTTTTACATCAGCCGACACTGGG  
AATTCAGTGTCTGCTTTTCCAAGTTATACAGGCGCAGGGATATCTACTGAAGGAAGCTCGGACTTCTCCTGGGGA  
TATGGTGAAGTTCGATCAAAATGCCACTGAAAAAGTCCAGACAATGTTACAGCCATTGATGAAGTCTTGTATGAG  
CAGAAGTTGAGTGTGCATACCAAGAGTCTACAAGAAGAGTGCCAACAGTGGACAGCTAGCTTTTCCCTCACCTCAGG  
ATTCTAGGTAGGCAGATAATCACTCCAAGTGAAGGTTATAGATTGTATCCTAGATCCCCCTTCTGCTGTTTCCGCT  
TCATATGAAACAACCTTGTCTCAAGAAAGAGATTCTACTATATTTGGTATAAGGGGAAAGAAGTTACATTTTTCA  
TCTTCTTATGCTCATAAAGCATCTTCCATTGCCAAATCCTCCAGCTTTTGTCTATGGAAAGAGATGAGGAAGAC  
TCTATAATCGTCTCAGAAGGAATAATTGAGGAATACCTAGCATTTCGATCACATAGATATAGAAGAGGGATTTCAT  
GGGAAGAAATCAGAAGCAGCTACAGAGAAACAGAAATTAGGGTATCCTCCCATTGCTCCATTTTACTGCATGAAA  
GAAGATGTCTTGCTTATGTGTTTGACAGTGTATGGTGCAGGTTGTGAGCTGTATGGAGCAGTTGACACGTAGT  
CACTGGGAAGGATTTGCCTCTGATGATGAGAGTAATGTTGCAGTTACCAGACCCGATTAGAAAGTTTCTGTGTG  
CTGAGTGAAGTACATCCTTTGGTGTACCGCGAGTGCCACAGTCTAAGGTGCTGTACATTACCTCAAATCCGATG  
AGTCTCTGTCAAGCAAGCAGACATCAGCCAAATGTGAATGATCTCTTGTTTCATGGAATGCCTCTACAGCCAAGA  
AATCTCTCCCTAATGGACAAGCTCCTAGATCTTGATGACAAGCTACTTATGAGGCCTGGGTCCAGTACCATCCTT  
TCAACTCGAAATTGGCCAAATCGAGCTGTGGAGTTTGTACATCATCTCTGTGCATACACAGTGCAGTCCACCAGG  
AGACGCAATCCACCACCACGAAGTCTTTCATCCGATCAGCAGAGCCATTTCATGTGCTGAAACACCAAGATCTGTG  
GAAGAAATCCTCAGAGGAGCCCGAGTCCCAGTGGCACCCGACTCGCTCTCCTCTCCCTCACCGACGCCCCCTGAGT  
CGAAATAATCTGCTACCACCTATTGGCACAGCTGAAGTGGAAACATGTGAGCACTGTGGGGCCACAAGACAGATG  
AAACCCCATGGCGACTCTAGTCGAGCTCAAAGTGGCGTGGTGGATGAACCTAACTATCAGCAGCCACAAGAAAGG  
CTCCTTTTGGCCGACTTTTTTCCCCAGGCCCAACACAAGTCAATCATTTTTTGTGGATACACAGTATCGTCGCTCA  
TGTGCAGTTGAGTATCCTCATCAGGCCCGACCTGGCAGGGGATCTGCAGGTCTCAGTTACATGGGTCTACAAAA  
TCTCAAAGCGGAGGCAGACCAGTCTCTCGAACCAGGCAGGGACCATAAGGCAAATGAGAAGAATCTATCAGGCTG  
CAGGAAACACGAGATTTTCATGAAGCAGTATTTCAGTCATCAAGTGATGCAGAGCTTGTATAGAAGATCGACTAGAA  
ATCATCTTCATGAAGAGTGATTTTGGCACAAGTGACCGAAGAACAACACCATAGCAGCCAAAAATGACATGAG  
TGTTGTTTCTATCTCCAGTTACTGTCTCTTTTTCAGCAGAAATTAACCTATCCCATTGGAAAGGCAAGTTTGTACCC  
AAAGATGCAACAGTGAATAATACCCAAATCACTGCTCATGTTATCTCTTAACAATGATCAGTTCAATCATATAGG  
ATTTGATGAGCTCACACATACACAAAAGCAGCAAATCATCAGTGACAATATCACTGGCTTCAGAATACTTCAGC  
CTGTGTTTCAATTTCTGGAGAGTTGTACTCAGTTTTAAGTCATTTTGTGTTGAAAATCTGACCTCATCAAATAGAT  
GTCATTCTTAAACTCTCTTTAGATGTCTTACCCTATCAGCAGATTAAATGGAAGGGGTGTGTAATAAAAAACA  
TAAATGTTAAGCATTAGTATAAAGTAACTTCTGTAATAAATTATATCGCATATTTTTTTCAGATAGGACAGCTCAA  
CCTTACGATGCCACCTGATGCCAGGTGATGCTTATTTTCTTCTTAAAGTAGGTTACTGGTCATATCTTTTTTCC  
AAATATTAAATGCACCTTGCCAGATATTCTCCTGCAGCTCTAAGGAAAGGAAATCAATTTAAAAATAATTTGTAG  
AATCTACTATTGAGCCACCAAAGTATAATTCCCTAAAAGTTAAGAAACCCTGGCAATTAATTCAGCATAAACAT  
ATCCTATAAACAGCAGGAGAGGTTTTCAGCTTTCTGATTTTACTGTGGACCTTTTCTTAAAGGGCATTTCATGAATGCA  
GCAACAGTTTTTAACTATGGCTTACATTTATTTTAAATTTCACTAAATACAAATCTTGATTGTCATGCCAGTTTTA  
GATCTTATTAATTTTTCAGAAATGGATAAATTCAAATAATCATAAATTACGGTAACTTTTTATTATACCAAGGTGTT  
CTAATGCCATCATATGAAGACAGATGCTTCAAACAACCTGCATTAAATTTATATTTTTTAAATAAAATTTAAATCTAT  
TTTTAACCTATTTGTAGTCACAAACCGAAAACGTGTGCTCTTTACCTTAGAGCTAAAGGCTTACTTTATGCATAC  
GGTATATTTAATAGTCTACAAATCAAAGATTTAAACAGTCCCTTAAAAATTCATATATTTTTCATACCAACTCAT  
CTACATAGAAATGAAAATCTCTATTGTTCTCACAAACCATTACCATGAGTTCACTATAACAACCTGGATCAATATG  
GCTTGCCCTTTCAAAGTTAAAGAATCAGAAAGGGGCTGTAAAGAAGTCATTTAGCCCAATTCCTTACCCTGTGTG  
TTTTCCCTCAAAGCCAGTGCAATTTTTTTTTTAAACAAAAAACTGGACATGTTTAAATACATACAGTTTGACAAAT  
TGGATTTCACTCTTTGTTTTGATGTAGTAAGTCTTTTATAAAAGGGAACAGATTTCAGACAAGCTCAGTGGCCCAA  
CTGAAGACATTTCAGCAATTAATGGCAGGACTTCAGTAATCAGTGGCAGGACTACAACATACATCTCTTCATGCTA  
GGGAAACCAGGCTCTCTATTATAAAGCTGACCAGGGCTATTGTTTTCCCTTTTCTCTCATCCTAAACACCATTC  
ATATTTTTCTTAGGTCACATTTTAGTGGGATCATTTACAAAGCCCCCAGAACTTAATCATCATGTTTTTACCTTTT  
TTATTGAATTATATACACCTCTTACAAAAATGCTTGAAGTAATTTAACACCTGTACATCAGTACAAAACCTGGCT



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**FIGURE 852B**

GAGTAAATGAAGAGAGGATCTATTCAAGATCATTAAAGACCAAATGTAAACTGGGAAGTATGTGGAAGATAGCTG  
TCCAGCAAGTGTCTGGAAGGTGTTCTAGCTGGGTAGAGAGCCTATTCTAACAGACACGCACATCGCAGAAAGCAG  
CATGAACAGAACCACATCCTAGATAAGAGTTCTGTGTACAGAAGATCCATGGAGGCAAGTGCTGTCAGGAAGGAC  
ACTGCCTCCCTCCACCCTCCCAAATGTCACCACCAAGTTCCTTCAGGTGAGACCTCACACAATGTCAAGTGCTTT  
CTAGGAAATACTAAGATCAGGTTGAGAGATTCTGCTTGGTCTAGTCAATCTGAAAAATTCAGGCTGGAAAGACAC  
CTTTTCTCAAGAGCTGAATTGACTTTTGCCTTCAAATCCTGCCTGCACCTTGCCTACGATGGCATCAATTTACAC  
CTAAGGACCTTTGAAGAGAAAAATTCATTATTTCTTTTCTTTCTTGAGAGCAGATTTTTTCCCTCCTCCTTTGG  
AAGATTTGCAGTACTTTGCTTCCATCTGAGCCAGAAAATTGTCCATTCCTTTTGCCGATCCTTTTGTCTGCTCT  
GTTTGAGAAAGTTAAACACAAGCTTTCACAACATTATCCATAGACAGAAAGTACCTAGTGGTTGCCAGGGGCTGG  
AAAAGTGGAAATACTACTAATGGGTATGGAGTTTTTTTGGAAATGGTGAAAATGTCCTACAATTGGTGTTAATAAT  
TGTAACCTTTGTAAATACACTTAAACACCAAATTTGTACACTTTAAAAGGACAAATAGAAGGTATGCGGTTAT  
GTCTTAAAAGAGAAAACAAAATACAACATTCCAAAGAAAATATTAGCAGTAGGAATCAGATCATTAAAGATGTG  
GCAACAAACTGCCAAGTTTACCTGAATGGCTGCCTTCAGGCTATCCACGCCTTCATCAAGCCCCAACTCCTTTCT  
GCTCATTCTGCTTCTTTGGCCTCTTCCTGAGCCTGAAACAGGAACTCACATGAGACTCAGGGCCACCAGGAAAT  
GCTTAAATACATACTCTTTCCCAAAGCAAATCTATAATTCTGTTTCAATTTTATGAATATATGAATAGACAAA  
ATGAATCGAATTACATACTATGTCAATTCATTAAATGGCAACAATGCTGACAGCAAGCAGTAGATCCTCTGATTC  
CAATTACCATTTGTTTTTTACCCAATTCTATTTGCTAGAGGTAGTAAGTACTCTGGCACTCATAAATCACATGAT  
GATAAAAAGGAACATGAGGCCGGGTATGGTGGCTCACAACCTGTAATCCCCATACCTTGGGAGGCCAAGGTGGGAG  
GATCACTTGAACCTCAGGAGTTCAAGACCTGCCTGGGTAACATAGTGAGACCTCAGTTCTATAAAAAAGAAAAGAA  
ATGAGCCTGGTGTGGTGGCATGTGCTTGTAGTCCCAGCTACTAGGGAGGCTGAGGTGGGAAGATGGCTTCAGTCT  
GAGAGTTCAGGCTGCAATAAGCTGTGATCATGCCTCTGCACTCCAGCCTGGGTGATGGAGATGCCATCTCTTAGA  
AAAAAGAG

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**FIGURE 853A**

GCGGCGGTGCGGCCAGGCTGCAGCTGAGCGCTCTGCGCGGCGCAGCCGGGTCTCCCGCGTGTACCACGCCGTGA  
CAGGTGCAGAGTCCGGGCTGAGGACCCACCTGCAGCCGCCGCCGCGATGCCACCATGCGGAGGACCGTGTGCGGA  
GATCCGCTCGCGCGCCGAAGGTTATGAGAAGACAGATGATGTTTCAGAGAAGACCTCACTGGCTGACCAGGAGGA  
AGTAAGGACTATTTTCATCAACCAGCCCCAGCTGACAAAATTCTGCAATAACCATGTCAGCACTGCAAAATACAA  
CATAATCACATTCTTCCAAGATTTCTCTACTCTCAGTTCAGAAGAGCTGCTAATTCATTTTTCTCTTTATTGCG  
ACTGCTGCAGCAAATACCTGATGTGTCACCAACAGGTCGTTATACAACACTGGTTCCTCTCTTATTTATTTTAGC  
TGTGGCAGCTATCAAAGAGATAATAGAAGATATTAAACGACATAAAGCTGATAATGCAGTGAACAAGAAACAAAC  
GCAAGTTTTGAGAAATGGTGCTTGGGAAATTGTCCACTGGGAAAAGGTGGCAGTAGGGGAGATAGTGAAAGTGAC  
CAATGGGGAACATCTCCCAGCAGATCTCATCAGTCTGTCTCAAGTGAGCCCCAAGCCATGTGCTACATTGAAAC  
ATCCAACCTTAGATGGTGAAACAAACTTGAAAATTAGACAGGGCTTACCAGCAACATCAGATATCAAAGACGTTGA  
CAGTTTGATGAGGATTTCTGGCAGAATTGAGTGTGAAAGTCCAAACAGACATCTCTACGATTTTGTTGGAAACAT  
AAGGCTTGATGGACATGGCACCGTTCCACTGGGAGCAGATCAGATTCTTCTTCGAGGAGCTCAGTTGAGAAATAC  
ACAGTGGGTTTCATGGAATAGTTGTCTACACTGGACATGACACCAAGCTGATGCAGAATTCACCAAGTCCACCACT  
TAAGCTCTCAAATGTGGAACGGATTACAAATGTACAAATTTTGATTTTATTTTGTATCTTAATTGCCATGTCTCT  
TGTCTGTTCTGTGGGCTCAGCCATTGGAATCGAAGGCATTCTGGAAAAGACTGGTATCTCAATCTAAACTATGG  
TGGCGCTAGTAATTTTGACTGAATTTCTTGACCTTCATCATCTTTTCAACAATCTCATTCCTATCAGCTTATT  
GGTTACATTAGAAGTTGTGAAATTTACCCAGGCATACTTCATAAATTGGGATCTTGACATGCACTATGAACCCAC  
AGACACTGCTGCTATGGCTCGAACATCTAATCTGAATGAGGAACCTGGCCAGGTTAAATACATATTTTCTGACAA  
AACTGGTACTCTGACATGCAATGTAATGCAGTTTAAAGAAGTGCACCATAGCGGGAGTTGCTTATGGCCATGTCCC  
TGAACCTGAGGATTATGGCTGCTCTCCTGATGAATGGCAGAACTCACAGTTTGGAGATGAAAAACATTTAGTGA  
TTCATCATTGCTGGAAAATCTCCAAAATAATCATCCAACCTGCACCTATAATATATGAATTTCTTACAATGATGGC  
AGTCTGTACACAGCAGTGCCAGAGCGAGAAGGTGACAAGATTATTTATCAAGCAGCATCTCCAGATGAGGGAGC  
ATTGGTCAGAGCAGCCAAGCAATTGAATTTTGTTTTCTACTGGAAGAACACCCGACTCGGTGATTATAGATTCACT  
GGGGCAGGAAGAAAGATATGAATTGCTCAATGTCTTGAGTTTACCAGTGCTAGGAAAAAGATGTCAGTGATTGT  
TCGCACTCCATCTGGAAAAGTTACGACTCTACTGCAAAGGAGCTGACACTGTAATTTATGATCGACTGGCAGAGAC  
GTCAAAATACAAAGAAATTACCCTAAAACATTTAGAGCAGTTTGTCTACAGAAGGGTTAAGAACTTTATGTTTTGC  
TGTGGCTGAGATTTTCAGAGAGCGACTTTTACAGGAGTGGCGAGCAGTCTATCAGCGAGCATCTACATCTGTGCAGAA  
CAGGCTACTCAAACCTCGAAGAGAGTTATGAGTTGATTGAAAAGAATCTTCAGCTACTTGGAGCAACAGCCATTGA  
GGATAAATTACAAGATCAAGTGCTGAAACCATAGAAACGCTAATGAAAGCAGACATCAAATCTGGATCCTTAC  
AGGGGACAAGCAAGAAACTGCCATTAACATCGGACACTCCTGCAAACCTGTTGAAGAAGAACATGGGAATGATTGT  
TATAAATGAAGGCTCTCTTGATGGAACAAGGGAACTCTCAGTCGTCAGTGTACTACCCTTGGTGATGCTCTCCG  
GAAAGAGAATGATTTTGCTCTTATAATTGATGGGAAAACCTCAAATATGCCTTAACCTTGGAGTACGACAGTA  
TTTCTTGACTTAGCTTTGTCTATGCAAAGCTGTCAATTTGCTGTGCGGTTTCTCCTCTTCAAAAATCTGAAGTTGT  
TGAGATGGTTAAGAAACAAGTCAAAGTCGTAACGCTTGCAATCGGTGATGGAGCAAATGATGTCAGCATGATACA  
GACAGCGCACGTTGGTGTTGGTATCAGTGGCAATGAAGGCCTGCAGGCAGCTAATTCCTCTGACTACTCCATAGC  
TCAGTTCAAATATTTGAAGAATTTACTGATGATTCAATGCTGCTGGAACCTATAACAGAGTCTCCAAGTGCATCTT  
ATACTGCTTCTACAAGAATATAGTGCTCTATATTATCGAGATCTGGTTTGCCTTTGTTAATGGCTTTTCTGGACA  
GATCCTCTTTGAAAGATGGTGTATAGGTCTCTATAACGTGATGTTTACAGCAATGCCTCCTTTAACTCTTGGAAT  
ATTTGAGAGATCATGCAGAAAAGAGAACATGTTGAAGTACCCTGAATTATACAAAACATCTCAGAATGCCCTGGA  
CTTCAACACCAAGGTTTTCTGGGTTTCATTGTTTTAAATGGCCTCTTCCACTCAGTTATTCTGTTTTGGTTTTCCACT  
AAAAGCCCTTCAGTATGGTACTGCATTTGGAATGGGAAAACCTCGGATTATCTGCTACTGGGAAAACCTTTGTGTA  
CACTTTTGTGGTGATAACTGTGTGTTGAAAGCTGGATTGGAGACATCATATTGGACATGGTTCAGCCACATAGC  
GATATGGGGGAGCATCGCACTCTGGGTGGTGTGTTTTGGGAATCTACTCATCTCTGTGGCCTGCCATTCCGATGGC  
CCCTGATATGTCAGGAGAGGCAGCCATGTTGTTTCAGTTCTGGAGTCTTTTGATGGGCTTGTATTATCCCTGT  
GGCATCTCTGCTCCTTGATGTGGTGTAAGGTTATCAAGAGGACTGCTTTTAAACATTGGTTCGATGAAGTTCA  
GGAGCTGGAGGCAAAATCTCAAGACCCAGGAGCAGTTGTACTTGGAAAAGCCTGACCGAGAGGGCGCAACTGCT  
CAAGAACGCTTTTAAAGAAGAACCGTGAACCTTGTACCGCTCTGAATCCTTGCAACAAAATCTGCTCCATGGGTA  
TGCCTTCTCTCAAGATGAAAATGGAATCGTTTCACAGTCTGAAGTGATAAGAGCATATGATACCACGAAACAGAG

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**FIGURE 853B**

GCCCCACGAATGG**TGA**TGGGGAGAGCCTGAAAGGCAGGCTCTGTTACCTCTCTAAGGAGAGCTACCAGGTTGTCA  
CCGCAGTCTGCTAACCAATTCCAGTCTGGTCCATGAAGAGGAAAGGTAGATCTGAGCTCATCTCGCTGATGGACA  
TTCAGATTCATGTATATTATAGACATAAGCACTGTGCAACTGTACTGTAACACCATCTCTTTTGGATTTTTTTAA  
GGTATTTGCTAAGTCTTTGTAAACGGAAATTGAAAATGACCTGGTATCTTGCCAGAGGGCTTTCTTAAACGGAGA  
ATAAGTCAGTATTCTTATGCCATTACTGTGGGGCTGTAACCTGACTGTCTAGTTTATTGGCTGTACCACAAGGTAAC  
CAACCATTAAAAAACTCTAAATGATATTTAGTTAAAGGGACTCTTGGTATCCAGACTTAGATTTTCAAGGATATGCT  
GAAACAAACCAGCATTCTTAAGGAACTGACTCACCTTCCTGAGCAAAATTTCTAAACAAGCATTGTGTGCCAAAA  
TTGTCTTGATAAATGTTTGCCAAAAGAGGTTTCAAGTGTGTTTTCTAGTTTCAAGTGTATGCCAGAAATGTA  
AGAGAAAGTTTACTTCCAGTTCCGCTGTAAGATCTGCATGCCTGACTTTCCAAATGTAAGAGTGATTTACAAAA  
TGAATATTTTCAAGGCATTTGCTACTAAAATCGGTGATGTTGCACCTTTGGCCTTACAAATGCTTCTTTGTTGTTT  
GTCGTGTTTTATTTGTTAGAGGACACACGTGTTAATGTGACTCTGTTGTTATGACACTGATTTTTCAAATATGTA  
TGTTTCAGGTATTTCTGATGAAGTTTTCATCATCATTTAGATTTTTCTAAAAATCTGGCTAATGCAGTAGATTGAG  
TGATGTCATTTTGTCTTAAAGTTTTTCCTCTTAAGAAACATATGCTACGTATTTACGTGGGATTTCCAAAGCTTC  
TGTTGCAATATTTGGAATAACATGTCAGATAAATGCATGGGCTTTTGTCTGTGTTCCAGTTCCCACTAGAGATG  
CCTGTGTCTTGTGTAGCACACCCAGTGTATGGTGACTGCCCCCTATACTGAAGACTGAAAATTATTTACAGTT  
CACTCATCAAATAGTTCCCAAAATTCGTCACATGCTGCTTATTGGGACAAATAGGTAGTACATTTTCCCCATTTA  
AAAAATGCGGATTTTACTCAGGCCGGTAACTTTACAGTCAGAGGACACGTTTCATCATGAGTAGCTTTTGTAGTA  
TGTTTTAAATGTATCTTCAGTTCAATTATTTTTCAGCATTTACAAGACATCTGAAAATGGCTATTTTGCTACCAA  
CAGTAAATGAAGGGCTGTTTAAAAACCACAACCAGTTTTCTACACTATTTTTTAAATAATACTTTTCAATTTGAAA  
AAAAGGAATTAGTTTTTTCAGATACACTTCAGAGATTGAAGCAAACTATTTGCCTTTTACTCAAAGCCTGCTTGCC  
TTTACATGGACTTACCAGCAAAATAGGTAGAATTTCTCTTTTAAAAAAGTCAACTAGAAATTGAGAAGAGGTGA  
TTTTTTTTTCAGATCGCTTCTCGAGTTTAAATATTTTTCACATTCTTTTACCCTTTTCTCAATCTAGATTTAAAT  
TAGGATATATGTCATTTTCTTGTCTGATTTGTAGCTCCTTAGTTACCAGTATGCCTCTCCATTTTCTACAAATA  
AGAGGTTATAACACATATACATAATTCTAACCTTAAGGGAACACACGTTTACATACTTTACTTCCCAAGCCCTTC  
CTGTTTGGGGTACAGATTGAGAGAGTCATGAATCAACACATCTAGCAAGACCACAGGTGTAAGAGTCTAAGATCG  
TCTTCAAATTTCTGAAGTCCCAGTCTTTACCTGTCCAGTGAATGAATATTCAGAGCAGCTTTTCTGGGCTTCCC  
AGTGGTGATAGCTGAGGTCAAACCACAAAAATAAGAAAGCAAGAGTGAAATGCACCCCTCCAGAGAAACACTTT  
GTAGTGTTTAAATCTGTTAATAGAGAAGAGCTGCTTCTGTTTGCCTCACTTCATCAGTGGCACCCCTTCTGCAGA  
ATTTTAATATAAAAAACATTATGGATATAATAGAACTGGATTTTCTGACTTAAAAATGTAAGTTTTATTTTAACT  
TGAAACGTGGATTGTTTCTGTGGAGCTCTTAAACATGAGAAGAATACTTACGGTTGATAATGTGTAACATGATCT  
GAAATGTGACTAATTTGAGCCTCTTTGTCCATCGTCTGTTTTTGAATTATTGACATTGTCAGTCTCTTTGCTT  
CCTGGGTGAGACTTGGGGTTTGGGGACAGGGAATGACCTTCTTGGTGAACTTAAAAATATAACATTGCAATTGC  
AGTGACTTTACAGTGTTAAATTAGAGAAAATAGTCTGATTTTTTAAACCTTCCTTAACTGGAAAAAGTCACATG  
GTTTTACCAGGATTGAAATAAACAGTCAATGTGACTTTTAAACATGTGTTTTTTGAAATAAAGGGCACGTACTCT  
TCAATTAATAAGTTCTTATAGGGACTCTGGCAAATGCTAACACAGTTGCTTTACAATGTTTACAATTCAGACAA  
TACGACTTATAATAGAAAATCCTCATTCAATTTAGCATTGAAAAGCTGGAAGTGCTTCTTTAATGTTGAATAGTA  
TACAGTGGTATTGAGCATGGACTTTCTAAATGTTTTATATATACATATAAAAAATATATTGGTGTCTCACACCCAG  
AAAGATGTTATATTGTAGATATTATTAGGAAAACAGTGTTTCTCAGGAACGTTGTAAATTTTAAATGATATATGT  
ACTTCCCGTCTCCCACTTCTGTGCTCTAATGTGAGACTGCTTACAGCAGTGTGCTAAGTTAATGGAAAA  
CTTTTTCTAATCAAGTCAGGTGAATGTGTATTCTGCTAAATAATGTTAGCCATTTACATGAATTGTATGGTCATT  
AAATGGAATCAGTGATTCTCTTTAATTTCCAGAGGGGAAATGAATTATGGAAATCAGTCAGCATTCTGATCATT  
AAATTTTATACTTTAATTTTGGCGTTTACGATTCTAAATATCCAATGTGAAAGTCACATGATAATTTGTTTTGCA  
TTGCGTGCCTGTACAACACTTACAATTTGTCATTTAAATGTTTTCTCGGGAAATGAATGCTAGTCAGAAAGTA  
ATAGATTGTATTATTCATAGTTTTTAAATTTATGACAATGTCATAATTACTACAAAGCTAAATAATCGTGTTTTATT  
TTTGTGCAGTTGCCCTTTGATAGTTCTTGGTTTTTAAACCTATTAAGTGATAATCTTACAAATAGTCATCTACA  
AAATTTATGGAGAAAGTGCCAGCCCATTCACATCACATGGACCAGGAATCTTTTGTAAATGACTTAAGGTAAC  
ATCATGCAGTTTCACTGCTAATAAATGCTTTTTTAAATGATGAGCATTCTATAATGACTCGTAAGATACCATAGTC  
TGATTTTTCTCACATTAATAAATACTGAAGTCACTTGTGTAACGTAGTTATACTTTGTCTGATTTTAAATTAACCTT

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**FIGURE 853C**

CAACAGCTATTAAAGTGGAATGTAAGTTAAATTTTGAAGGAAAGGAAATAAATGTTTTCCATATTTTCGTCTTGAT  
TTACTTTCTGTATGAGAACAGCTGTGTTTTTGATAGGTTTATGGTTTGCATGAGTTCATATTTAAAGTGATCCAG  
GCCAATGCATGGCTATTGCTGTAAATCTTGATGTTTATTTCTGCCTTGTAAGTTCTATCACGGCCTACCTGGAA  
TTTAAAATTCAGTAGACAAATTAATTGGTCCTCTGCACAACTTTTTAATAAGTAGATTATTTACAAAGAAATT  
TGAACAAATTTAATTGAATCTTTTGTTTAGCTTGCCTCTAAGAACTTTTCTTAATAAAGCTCCCCAAACTTCTCA  
GCAAATAAATCTCCCTTAAGTAGGAAAAC TAGATTTTCATATTTGCTTACTTTGAATTAACAGCAACTTTCCACAG  
GTAAATCTGTTCTTGCAAAGATGTGAGCAGAATAGTTAAAAATAATATTTTTATGTTTCATGGTTCTAAATGGAA  
GCCATAAATGCAGTAAATACTATCTGTTGTTTAACTACTTTAATCGTCATTTTTTACATTTTCAAGTTTATTAGG  
TTAAGAAAAACAGGGCAGCCTTGGAAGGCAGCTACTACAGAAAAC TGCAGTTTTGCGTTAAAGATAAAGTAGTAT  
TTTCAGCTCCCTGAAAAACCATTCCTGCTGAAACTGCTGTAGAAATTGTGAAGCTGCATGAGTGGAGAGTATTGA  
ATCTGTGGTTATAGTAGTTTTCTCAGGTTTGTATCTTGATGTTTGATGCACTGTGTTTTATAGTTATTAAAAT  
TGAGTAATATTATTTCTATGCAGTGTTATGTGTCATTGGCCTTTTGTGAATGTGCATGTTTTAAACTGCAAATTT  
TAAACATTTTGTCCCTCTAATTGTTATTAAAAATGAAATAAACTTTACCATTACTTAAAAAAA

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**FIGURE 854**

MPTMRRTVSEIRSRAEGYEKTDVVSEKTSADQEEVRTIFINQPQLTKFCNNHVSTAKYNIITFLPRFLYSQFRR  
AANSFFLFIALLOQIPDVSPTRYTTLVPLLFILAVAAIKEIIEDIKRHKADNAVNNKQTQVLRNGAWEIVHWEK  
VAVGEIVKVTNGEHLPLADLISLSSEPQAMCYIETSNLDGETNLKIRQGLPATSDIKDVDLSLMRISGRIECESPN  
RHLYDFVGNIRLDGHGTVPLGADQILLRGAQLRNTQVHGVVYTGHDTKLMQNSTSPPLKLSNVERITNVQILI  
LFCILIAMSLVCSVGSIAWNRHSGKDWYLNLYGGASNFGNFLTFLILFNNLIPISLLVTLEVVKFTQAYFIN  
WDLDMHYEPTDTAAMARTSNLNEELGQVKYIFSDKTGTLTCNVMQFKKCTIAGVAYGHVPEPEGYCSPDEWQNS  
QFGDEKTFSDSSLENLQNNHPTAPIIYEFLTMMAVCHTAVPEREGDKIIYQAASPDEGALVRAAKQLNFVFTGR  
TPDSVIDSLGQEERYELNVLEFTSARKRMSVIVRTPSGKLRLYCKGADTVIYDRLAETSKYKEITLKHLEQFA  
TEGLRTLCLFAVAEISESDFQEWRAVYQRASTSVQNRLKLEESYELIEKNLQLLGATAIEDKLQDQVPETIETLM  
KADIKIWILTGDKQETAINIGHSCKLLKKNMGMIVINEGSLDGTRETLRHCCTLGDALRKENDFALIIDGKTLK  
YALTFGVRQYFLDLALSCKAVICCRVSPLOKSEVVEMVKKQVKVVTLAIGDGANDVSMIQTAVHGVGISGNEGLQ  
AANSSDYSIAQFKYLKNLLMIHGAWNYNRVSKCILYCFYKNIVLYIEIWFVAFVNGFSGQILFERWCIGLYNVMF  
TAMPPLTLGIFERSKRKENMLKYPELYKTSQNALDFNTKVFVWHCLNGLFHSVILFWFPLKALQYGTAFNGKTS  
DYLLLGNFVYTFVVIITVCLKAGLETSYWTWFSHIAIWGSIALWVVFLLGIYSSSLWPAIPMAPDMSGEAAMLFSSGV  
FWMGLLFIPVASLLLDVVYKVIKRTAFKTLVDEVQELEAKSQDPGAVVLGKSLTERAQLLKNVFKKNHVNLYRSE  
SLQQNLLHGYAFSQDENGIVSQSEVIRAYDTTKQRPDEW

**FIGURE 855**

CGACGCGGGAGCCGCACGCGCCGGACGAGGCTCGCTGCGCTCCCTGTTGCCAGCGCGGGCCCGTTGAGGCGGAG  
CCCTCAGTTCCCGGCCAGGACACGGTCTGGGCGCCGAATCTCCGGCCGAAGAGCGGCGGCGGCAGCGGCGGGAA  
AAAAATGAAGAATGAAATTGCTGCCGTTGTCTTCTTTTTCACAAGGCTAGTTCGAAAACATGATAAGTTGAAAAA  
AGAGGCAGTTGAGAGGTTTGTGAGAAAATTGACCCTAATACTTCAAGAAAAATATAAAAATCACTGGTATCCAGA  
AAAACCATCGAAAGGACAGGCCCTACAGATGTATTCTGTGTCAATAAAATTTTCAGAGAGTTGATCCTGATGTCCTGAA  
AGCCTGTGAAAACAGCTGCATCTTGTATAGTGACCTGGGCTTGCCAAAGGAGCTCACTCTCTGGGTGGACCCATG  
TGAGGTGTGCTGTCTGTAGAGATGGGGTTTTACCATTGTTGGCCAGACTGCTCTCAAACCTCTGACCTCGTGATCCG  
CCCGCCTTGGCCTCCCAAAGCGCTGGATTACAGGCGTGAGCCACTGCGCCCGCCTCCTCCTTTTTTGATTATGTA  
TGGAGAGAAAAACAATGCATTCATTGTTGCCAGCTTTGAAAATAAAGATGAGAACAAGGATGAGATCTCCAGGAA  
AGTTACCAGGGCCCTTGATAAGGTTACCTCTGATTATCATTTCAGGATCCTCTTCTTCAGATGAAGAAACAAGTAA  
GGAAATGGAAGTGAAACCCAGTTCGGTGACTGCAGCCGCAAGTCCTGTGTACCAGATTTTCAGAACTTATATTTCC  
ACCTCTTCCAATGTGGCACCCTTTGCCCAGAAAAAAGCCAGGAATGTATCGAGGGAATGGCCATCAGAATCACTA  
TCCTCCTCCTGTTCCATTTGGTTATCCAAATCAGGGAAGAAAAAATAAACCATATCGCCCAATTCAGTGACATG  
GGTACCTCCTCCTGGAATGCATTGTGACCGGAATCACTGGATTAATCCTCACATGTTAGCACCTCACTTAACTTCG  
TTTTTGATTGTGTTGGTGTGATGTTGAGAAAAAGGTAGAATAAACCTTACTACACATTAAGTTAAAGTTCTT  
ACTAATAGTAGTGAAGTTAGATGGGCCAAACCATCAAACCTATTTTTATAGAAGTTATTGAGAATAATCTTTCTT  
AAAAAATATATGCACTTTAGATATTGATATAGTTTGAGAAATTTTATTAAAGTTAGTCAAGTGCCTAAGTTTTTA  
ATATTGGACTTGAGTATTTATATATTGTGCATCAACTCTGTTGGATACGAGAACCCTGTAGAAGTGGACGATTTG  
TTTTAGCCCTTTGAGAATTTACTTTATGGAGCGTATGTAAGTTATTTATATACAAGGAAATCTATTTTATGTGCG  
TTGTTTAAGAGAATTGTGTGAAATCATGTAGTTGCAATAAAAAATAGTTTGAGGCAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAA

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**FIGURE 856**

MKNEIAAVVFFFTRLVRKHDKLKEAVERFAEKLTLILQEKYKNHWPEKPSKGQAYRCIRVNKFQRVDPDLKA  
CENSILYSDLGLPKELTLWVDPCEVCCRRDGVSPCWPDCSQTPDLVIRPPWPPKALDYRREPLRPASSFLIMYG  
EKNNAFIVASFENKDENKDEISRKVTRALDKVTSDYHSGSSSSDEETSKEMEVKPSSVTAAASPVYQISELIFPP  
LPMWHPLPRKKPGMYRGNGHQNHYPFVPFGYPNQGRKNKPYRPIPVTWVFPFGMHCDRNHWINPHMLAPH

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**FIGURE 857**

AATTTGGGGCCAAGATTAAACACCCCTCCTGCAGGAGGAAGACAGCCACCAGCGGCTGCTCATGGGGCTGATGGTG  
TCTGAGCTAAAAGACCATTTTTTGAGACACCTACAGGGTGTAGAAAAGAAGAAAATTGAACAGATGGTTCTGGAC  
TACATTTCAAAACTGCTGGATCTCATTGGCCACATCGTAGAAACCAATTGGAGGAAACATAATCTTCATTCCCTGG  
GTTCTCCACTTCAATAGTCGTGGCAGTGTCTGAATTTGCAGTTTTTCACATCATGACCAGGATTCTGGAAGCT  
ACAAACAGTTTGTGTTTTACCTCTGCCTCCTGGTTTTTCATACTCTGCACACCATCCTCGGGGTCCAGTGTCTCCCT  
TTGCATAACCTGCTGCATTGCATTGACAGTGGAGTGTGCTTCTCACTGAAACAGCTGTCATAAGGCTCATGAAA  
GATCTGGATAATACAGAGAAAAATGAAAACTGAAATTCAGTATCATTGTGCGGCTTCCTCCGCTTATTGGGCAG  
AAGATTTGTAGACTTTGGGATCATCCTATGAGTTCTAACATCATTTCGCGGAACCACGTGACGCGACTGCTTCAG  
AACTATAAGAAACAGCCTCGGAATTCTATGATTAAACAAGTCATCGTTCAGTGTAGAATTTCTGCCTCTGAACTAC  
TTCATTGAAATTCTGACAGATATAGAGTCCTCCAATCAAGCCCTGTATCCTTTTGAAGGACATGACAATGTGGAT  
GCAGAATTTGTAGAGGAAGCAGCTCTGAAACACACCGCGATGCTTTTAGGCTTATGAAAAAGAAAACGCAATTGG  
ATCTGCTGCTGCCATTTTAATCTTGCTCATTAACTTACTCCTCTGAGAATTCCTTAACAATATTTAAAATTGGT  
AACAAAAATAGTTTAGCCATAATTGTTTAGCCATGTGAGTTTCAGGTTGGTACACGTTTCAGACAGAACTGCTGTA  
TCACATTCCAATTTTGAATAGCCAGTGAGCAATCAAGTGTAGAGAAATGATAAATGGCCTAAGAAGGCATACAGT  
GGCATAAACGATGCTCTTCCTAGTAGCTTAATAGGCCACAAGCTAGTTTCTGTTGCACTCTGAAATAAAATATGC  
TTTAAAAATGTAGGGAACAGTGCTTAGAAAAGCAAAAACCTAGGTGTGTCATTGAAATAATAGGCATAAAAATTAA  
ATGTTACATAAGAACACTATTTGGAAAGAGGGTCCTTTTAAAAACTGAATTTGTAATAATCAGATTTGCCATGT  
CCCAGTCCAGAATAATTTGTACTTAGTATTTGCAGCAGGGTTTGTCTTTGTGAATTCAGATGAAACATATTTATT  
TTTTTTTATTTATAAAAGGTTGATTTAGGAATATTTTGTGAGTCATTAAAAACCTGAAAACATAAAAAAAAAA  
AAAAAAA



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**FIGURE 858**

NLGPRLTPLLQEEDSHQRLLMGLMVSELKDHFLRHLQGVEKKKIEQMVDYISKLLDLICHIVETNWRKHNLSW  
VLHFNSRGSAAEFVAFHIMTRILEATNSLFLPLPPGFHTLHTILGVQCLPLHNLLHCIDSGVLLLTETAVIRLMK  
DLDNTEKNEKLKFSIIVRLPPLIGQKICRLWDHPMSSNII SRNHVTRLLQNYKKQPRNSMINKSSFSVEFLPLNY  
FIEILTDIESSNQALYPFEGHDNVDAEFVEEAALKHTAMLLGL

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**FIGURE 859A**

GGCCGCGAGTGCATCTTCCACGAACCTAATTCATCTCTCCAGCAAAGGACACATCTCTCCAGCAAAGGACACCTC  
TCTCCAGCAAAGGACACCTGCAGAGATGTCCCCAGTCCTTCACTTCTATGTTTCGTCCCTCTGGCCATGAGGGGGC  
AGCCTCTGGACACACTCGGAGGAACTGCAAGGGAACTGCCAGAGCTGCAGGGCGTCGAGACTGAACTGTGCTA  
CAACGTGAACTGGACAGCTGAGGCCCTCCCCAGTGTGAGGAGACAAAGAAGCTGATGTGGCTGTTTGGTTGCC  
CTTACTGCTGGATGATGTTGCTCGGGAGTCCTGGCTCCTTCCTGGCTCCAATGACCTGCTGCTGGAGGTCGGGCC  
CAGGCTGAACTTCTCCACCCCAACATCCACCAACATCGTGTCTAGTGTGCCGCGCCACTGGGCTGGGGCCTGTGGA  
TCGTGTGGAGACCACCCGGCGCTACCGGCTCTCGTTTGCCCCACCCCCGTCAGCTGAGGTGGAAGCCATTGCTCT  
GGCTACCCTGCACGACCGGATGACAGAGCAGCACTTCCCCCATCCCATCCAGAGTTTCTCCCCTGAGAGCATGCC  
GGAACCCCTCAATGGCCCTATCAATATACTGGGTGAGGGCCGGCTTGCGCTGGAGAAGGCCAACCAGGAGCTTGG  
TCTGGCTTTAGACTCTTGGGACCTAGACTTCTACACCAAGCGCTTCCAGGAGCTACAGCGGAACCCGAGCACTGT  
GGAGGCCTTTGACTTGGCGCAGTCCAATAGCGAGCACAGCCGACACTGGTTCTTCAAGGGCCAGCTCCACGTGGA  
TGGGCAGAAGCTGGTGCACCTCACTGTTTGAGTCCATCATGAGCACCCAGGAATCCTCGAACCCCAACAACGTCTT  
CAAATTCGTGTGATAACAGCAGTGAATCCAGGGAAAGGAAGTCCGATTCTACGGCCTGAGGACCCACACGGCC  
AAGCCGCTTCCAGCAACAGCAAGGGCTGAGACATGTTGTCTTACAGCAGAGACTCACAACTTTCACAGGAGT  
ATGCCCCCTTAGTGGTGCAACCACTGGCACAGGGGGCCGGATTTCGAGATGTCCAGTGCACAGGCCGCGGGGCCA  
CGTGGTGGCTGGCACTGCCGGCTATTGCTTTGGAATCTGCATATTCCAGGTTACAATCTGCCCTGGGAGGATCT  
AAGCTTCCAGTATCCTGGGAATTTTGCCCGGCCCTGGAGGTTGCCATTGAAGCCAGTAATGGAGCTTCTGACTA  
TGGCAACAAGTTTGGGGAACCACTGCTGGCTGGCTTCGCCGCTCCTTGGGCCTCCAGCTCCAGACGGCCAGCG  
GCGTGAGTGGATCAAGCCCATCATGTTTAGTGGGGCATTGGGTCCATGGAAGCTGACCACATAAGCAAGGAGGC  
CCCAGAGCCAGGCATGGAAGTTGTAAAGGTTGGAGGTCCCGTCTACAGGATTGGAGTTGGAGGTGGAGCTGCTTC  
ATCTGTGCAGGTGCAGGGAGATAACACCAGTGACCTGGACTTTGGGGCTGTGCAGCGAGGAGACCCGGAGATGGA  
ACAGAAGATGAACCGTGTGATCAGGGCTTGTGTGGAGGCCCCCAAGGGAAACCCCATCTGCAGCCTTCATGATCA  
GGGCGCTGGTGGCAATGGCAATGTCTAAAAGAGCTGAGTGACCCAGCTGGAGCCATCATTTACACCAGCCGCTT  
CCAGCTTGGGGACCCAAACCCCTGAATGCCCTGGAAATCTGGGGGGCTGAGTACCAGGAATCAAATGCTCTTCTGCT  
GAGGTCCCCCAACCGGGACTTCTGACTCATGTCTAGTGCCCGTGAACGTTGCCCGGCTTGCTTCGTGGGCACCAT  
CACTGGAGACCGGAGAATAGTGCTGGTGGACGATCGGGAGTGTCTGTGTCAGAAGAAATGGCCAGGGGGATGCCCC  
CCCGACACCCCCGCCAACCCCTGTGGACCTGGAGCTCGAATGGGTGCTGGGCAAGATGCCTCGGAAGGAGTTCTT  
CCTGCAGAGGAAGCCCCCATGCTGCAGCCTCTGGCCTTGCCCCAGGGCTGAGCGTGCACCAGGCTCTGGAGAG  
GGTTCTGAGGCTGCCCCGCCGTGGCCAGCAAGCGCTACCTACCAATAAGGTGGACCGCTCCGTGGGAGGCCTGGT  
GGCCAGCAGCAGTGCCTGGGGCCCTGCAAACTCCTCTGGCAGATGTAGCGGTTGTGGCACTGAGCCATGAGGA  
GCTCATAGGGGCTGCCACAGCCTTGGGAGAACAGCCAGTCAAGAGCCTGCTGGACCCAAAAGTCGCCGCCCGCT  
GGCCGTGGCCGAAGCCCTACCAACCTGGTGTTTGTCTGTGGTCACTGACCTCCGGGATGTGAAGTGTAGCGGAA  
CTGGATGTGGGCAGCCAAGCTCCAGGGGAGGGCGCAGCTTTGGCGGATGCCTGTGAGGCTATGGTGGCAGTGAT  
GGCAGCCCTGGGTGTGGCAGTGATGGTGGCAAGGACTCCCTCAGCATGGCTGCTCGGGTTGGCACTGAGACCGT  
GCGGGCTCCTGGGTCACTGGTCATCTCAGCCTATGCCGTCTGCCAGACATCACAGCCACTGTGACCCAGACCT  
CAAGCATCCTGAAGGGAGAGGCCATCTGCTCTATGTGGCTCTGAGCCCTGGGCAGCACCGGCTCGGGGGCACAGC  
TCTGGCCAGTGCTTCTCCAGCTTGGGGAACACCCCTCCAGACCTGGACCTTCTGAGAACTTGGTGGCGGCCTT  
CAGCATCACTCAGGGGCTGTGAAAGACCGCCTCCTCTGCTCAGGCCACGATGTCAGTGACGGAGGCCTCGTCAC  
ATGCCTGCTGGAGATGGCCTTTGCTGGAATTTGCGGGCTACAGGTGGATGTGCCTGTCCCCAGGGTTGATGTCTT  
GTCTGTGCTGTTTCGCTGAGGAGCCAGGCCTCGTGTGGAGGTGCAGGAGCCAGACCTGGCCCAGGTGCTGAAGCG  
TTACCGGGATGCTGGCCTCCATTGCCTGGAGCTGGGCCACACAGGCGAGGCCGGGGCCCCACGCCATGGTCCGGGT  
GTCAGTGAACGGGGCTGTGGTTCTGGAGGAGCCTGTTGGGGAGCTGCGAGCCCTCTGGGAGGAGACGATTTCCA  
GCTGGACCGGCTACAGGCAGAGCCTCGCTGTGTGGCAGAGGAGGAACGGGGCTGAGGGAGCGGATGGGGCCAG  
CTATTGCCTGCCCCCACCTTTCCCAAAGCCTCCGTGCCCCGTGAGCCTGGTGGTCCCAGCCCCGAGTCGCCAT  
CTTGCGAGAGGAGGGCAGTAATGGAGACCGGGAGATGGCCGATGCCTTCCACTTAGCTGGGTTTGAGGTATGGGA  
CGTGACCATGCAGGACCTCTGCTCTGGGGCAATTGGGCTGGACACTTTCCGTGGCGTGGCCTTCGTGGGCGGCTT  
CAGCTATGCAGATGTCTGGGCTCTGCCAAAGGGTGGGCAGCTGCTGTGACCTTTCATCCCAGGGCTGGGGCTGA  
GCTGAGGCGCTTCCGGAAGCGGCCAGACACCTTCAGCCTGGGCGTGTGTAATGGCTGTCAACTGCTGGCTCTGCT

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**FIGURE 859B**

CGGCTGGGTGGGAGGCGACCCCAATGAGGATGCTGCAGAGATGGGCCCTGACTCCCAGCCAGCCCGGCCAGGCCT  
TCTGCTACGCCACAACCTGTCTGGGCGCTACGAGTCTCGCTGGGCCAGCGTGCGTGTGGGGCCTGGGCCAGCCCT  
GATGCTGCGAGGGATGGAGGGCGCCGTGCTGCCCGTGTGGAGTGCACGCGGGAAGGTTACGTAGCATTTCCTTC  
TCCGGAACCTCCAAGCTCAGATTGAGGCCAGGGGCTTGGCTCCACTGCACTGGGCTGATGATGACGGGAACCCAC  
AGAGCAGTACCCTCTGAATCCCAATGGGTCCCCAGGGGGCGTGGCTGGCATCTGCTCCTGTGATGGCCGCCACCT  
GGCTGTGATGCCTCACCCTGAGCGGGCCGTTAGGCCTTGGCAGTGGGCATGGCGACCCCTCCATTTGATACTCT  
GACCACCTCCCCCTGGCTCCAGCTCTCTATCAATGCCCCGAACTGGACCCTGGAAGGGAGCTGCTTGACTGGCCAC  
AGGGGCTCACCTGGGCCCCATGGCTTTTACCTAAGTGGGTCTGCCCCCTCCCCCATGACCTTCAGGAGCACCC  
CATATTATTTCCAAAAATATCTTGGACAGACAAGGACCAAAATGCCAAAATCTCAGCGGACTCGATGATCTGCCT  
GCTGATGTTCTTCTGTGGCTGTGTCTATTTTTCAGTTCTGCTCTAACATGGCATGCCCTTTCTCAGCCCAGGAAA  
CAGCATGTGGTTTACAGAGAAAAGAGCGACAAGGAAAAGTTAGGACTCCTGAGGTCCGAACAGGGGCTTCTGTTGCC  
CACTTCACAACACCCAGTGATCACCGGTGTGCAATTGCCTCCTTGGCTCTGAGGGATGTTTTGCGCTCCCTTTTC  
TCATCATTGGGGTTAGCGGGTGCAGACAAATTCAGCAATAGTATGCAGATCAGCCCCCTACCACCTCATTGTTCT  
CATCTGGAACCTGAAACTTTCTGGATTTCTCTTGAAGTGCTACACTGCACTGAATGTAAGGAATTGTTGCTTGTGG  
AAGTTTCTCAGCGTTTCTGGCTGTCTTAGGGCTGGCCTCAGAACCCAGCATTCTGTTATTTGCTTTCTAAATTAG  
CAGCTCTCTTTTTTTTTTTTTTTTTTTGAGGCAGTCTCACTCTGTCACCCAGGCTGGAGTGCAGTGGCGTGATCTCG  
GCCCCACTGCAACCTCTGCCTCCTGGGTTCAAGCAATTTCTGCTCAGCCTCCCGAGTAGCTGGGAGTACAGGC  
ACACACCACCACCCAGCTAATTTTTGTATTTTGTAGTAGAGATAGGGTTTACCCTGTCTCCCAGGCTGGTCTC  
AAACTCCTAACCTCAAGTGATTGCCTGCCTCGGCCTCCCAAAGTGCTGGGATTACAGGTGGGAGCCACTACAGC  
TGGCCCAGCAGCTCTGTTTCTGATAGAGGTGGTTGGGGCTCTCATCCCTAGATCCTAACCTTTTAGTATGCTGGA  
ATTCTACTCTTCACTTACTGCATTGACTGTTGTTGATTAGTTATTATTGCAAAGCACTGCCACCGGCCTCAGGGA  
GTTTATGTGTAATAGAATTAATAATAATAGCTGTGTATAACACTTAGCTCAAGCCACGCATGTGTGAGGCATTTG  
GTATGTATCTGAATTAATTCTCACTAAAATTGAGCAAAGGACTTGATAGCCTCTCCCCGCCTTTTCAATAAAGGA  
TGAATGAAGGTTG

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**FIGURE 860**

AASASSTNLIHLSSKGHISPAKDTSLQORTPAEMSPVLHIFYVRPSGHEGAASGHTRRKLOGKLPPELQGVETELCY  
 NVNWTAEALPSAEETKKLMWLFGCPLLLDDVARESULLPGSNDLLLEVGPRLNFTPTSTNIVSVCRATGLGPVD  
 RVETTRRYRLSFAHPPSAEVEAIALATLHDMTEQHFPHPIQSFSPESMPEPLNGPINILGEGRLALEKANQELG  
 LALDSWDLDFYTKRFQELQRNPSTVEAFDLAQSNSEHSRHWFFKGQLHVDGQKLVHSLFESIMSTQESSNPNNVL  
 KFCDNSSAIQGEVRFRLPEDPTRPSRFQQQGLRHVVFTAEETHNFPTGVCFFSGATTGTGGRIQDVQCTGRGAH  
 VVAGTAGYCFGNLHIPGYNLPWEDLSFQYPGNFARPLEVAIEASNGASDYGKFGEPVLAGFARSLGLQLPDGQR  
 REWIKPIMFSGGIGSMEADHISKEAPEPGMEVVKVGGPVYRIGVGGGAASSVQVQGDNTSDLDGAVQRGDPEME  
 QKMNRVIRACVEAPKGNPICSLHDQGAGGNGNVLKELSDPAGAIITYTSRFQLGDPTLNALEIWGAEYQESNALLL  
 RSPNRDFLTHVSARERCPACFVGTTIGDRRIVLVDDRECPVRRNGQGDAPPTPPPTPVDLELEWVLGKMPRKEFF  
 LQRKPPMLQPLALPPGLSVHQALERVRLRLPAVASKRYLTNKVDRSVGGGLVAQQQCVGPLQTPPLADVAVVALSHEE  
 LIGAATALGEQPVKSLLDPKVAARLAVAEALTNLVVALVTDLRDVKCSGNMMWAAKLPGEAALADACEAMVAVM  
 AALGVAVDGGKDSLMAARVGTETVRAPGSLVISAYAVCPDITATVTPDLKHPEGRGHLLYVALSPGQHRLLGGTA  
 LAQCFSQLGEHPPDLDPENLVRAFSITQGLLKDRLLCSGHDVSDGGLVTCLLEMAFAGNCGLQVDVPVPRVDVL  
 SVLFAEEPGLVLEVQEPDLAQVLKRYRDAGLHCLLELGHTEAGPHAMVRVSVNGAVVLEEPVGELELALWEETSFQ  
 LDRLQAEPRCVAEEERGLRERMGPSYCLPPTFPKASVPREPGGSPRVAILREEGSNGDREMADAFHLAGFEVWD  
 VTMQDLCSGAIGLDTFRGVAFVGGFSYADVLGSAKGWAAVTFHPRAGAELERRFRKRPDTFSLGVCNGCQLLALL  
 GWVGGDPNEDAAEMGPDSQPARPGLLLRLHNLSGRYESRWASVRVGPFPALMLRGMGAVLPVWSAHGEGYVAFSS  
 PELQAQIEARGLAPLHWADDDGNPTEQYPLNPNGSPGGVAGICSCDGRHLAVMPHPERAVRPQWAWRPPPFDTL  
 TTSPWLQLSINARNWTLEGSC

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**FIGURE 861A**

CTGCGGCCGCTGGTTTCTTGCCTTAAGGAGCCCATTCGCTTTCCCGCTGAAGTCTAGATGTTGACATGTAATAA  
AGCGGGCAGCAGG**AT**GGTGGTGGATGCGGCCAACTCCAATGGGCCTTTCCAGCCCGTGGTCCTTCTCCATATTCG  
AGATGTTTCTCTGCTGATCAAGAGAAGCTTTTTATCCAGAAGTTACGTCAGTGTTGCGTCCTCTTTGACTTTGT  
TTCTGATCCACTAAGTGACCTAAAGTGGAAGGAAGTAAACGAGCTGCTTTAAGTGAATGGTAGAATATATCAC  
CCATAATCGGAATGTGATCACAGAGCCTATTTACCCAGAAGTAGTCCATATGTTTGAGTTAACATGTTTCGAAC  
ATTACCACCTTCTCCAATCCTACGGGAGCGGAATTTGACCCGGAGGAAGATGAACCAACGTTAGAAGCAGCCTG  
GCCTCATCTACAGCTTGTTTATGAATTTTTCTTAAGATTTTATAGAGTCTCCAGATTTCCAACCTAATATAGCGAA  
GAAATATATTGATCAGAAGTTTGTATTGCAGCTTTTAGAGCTCTTTGACAGTGAAGATCCTCGGGAGAGAGATTT  
TCTTAAACCACCTTCACAGAATCTATGGGAAATTCCTAGGCTTGAGAGCTTACATCAGAAAACAGATAAATAA  
TATATTTTATAGGTTTATTTATGAAACAGAGCATCATAATGGCATAGCAGAGTTACTGGAAATATTGGGAAGTAT  
AATTAATGGATTTGCCTTACCACTAAAAGAAGAGCACAAGATTTTCTTATTGAAGGTGTTACTACCTTTGCACAA  
AGTGAAATCTCTGAGTGTCTACCATCCCCAGCTGGCATACTGTGTAGTGCAGTTTTTAGAAAAGGACAGCACCTT  
CACGGAACCAAGTGGTGATGGCACTTCTCAAATACTGGCCAAAGACTCACAGTCCAAAAGAAGTAATGTTCTTAA  
CGAATTAGAAGAGATTTTAGATGTCATTGAACCATCAGAATTTGTGAAGATCATGGAACCCCTCTTCCGGCAGTT  
GGCCAAATGTGTCTCCAGCCACACTTCCAGGTGGCAGAGCGAGCTCTCTATTACTGGAATAATGAATACATCAT  
GAGTTTAATCAGTGACAACGCAGCGAAGATTCTGCCCATCATGTTTCCCTTCCCTGTACCGCAACTCAAAGACCCA  
TTGGAACAAGACAATACATGGCTTGATATACAACGCCCTGAAGCTCTTCATGGAGATGAACCAAAAGCTATTTGA  
TGACTGTACACAACAGTTCAAAGCAGAGAACTAAAGAGAAGCTAAAAATGAAAGAACGGGAAGAAGCATGGGT  
TAAATAGAAAATCTAGCCAAAGCCAATCCCCAGTACACAGTGTATAGTCAAGCCAGCACCATGAGCATTCCGGT  
TGCAATGGAGACAGATGGGCCTTTATTTGAAGATGTGCAGATGCTGAGAAAGACAGTGAAGGACGAGGCTCATCA  
GGCACAGAAAGATCCGAAGAAGGACCGTCTCTTGCACTCCGCAAGTCCGAGCTGCCTCAGGACCCCCACACCAA  
GAAAGCCTTGGAAGCTCACTGCAGGGCCGATGAGCTGGCCTCCAGGACGGCCGCT**AG**CCTCCGGGGCGCCGCGT  
CGGGGCCGGGCCCGCCAGTTCTTTTCCGGATTCTGTAGAAAATACATACTTCTGTGCCATACCAATCAGTTACA  
CTCAAAGCTTTCTTGACCCCGTTCCGTAGGCAATAACGTGCGTCCGCCCTCAGCGCGAGATTAGGAGTTCAAACA  
ATGGTGACTTCCAGAGCCCGCTGGCAGAGCCGCGGGTTGACGACGGTGTCTCGCAGTGTGCGCGCCACCCAG  
CGTAGTCCAAGTCAGACTATTTACAAAAGTCAGAGCGATAGGAAAGCACCCCTGCCCTTCATCTTCATGTTCTCCC  
AAATGGAACCTTAGGATCTTTTAACATAGGTGGTTCTGTGATAACATCAGTGTTTTCCAAATCAAAGGAACGCTTT  
AAAAAATAGGACCTATTTTTTAAGACTTTACAGCCTTTGAAATGGTTTCCACGTGATTGTTACGCCAGCAGTTCT  
TTTGTTTGTTTTTCAATCTCAGTGAAATGGCTCTTTGCTTTTCGAGTTCTCACGCAACGTACTGGGCAAATGACAA  
TCCCTCAGCCGCTGGTATTTTTCTAAGGGGTCTCTTCACTTTGATGAGTGACATGAACACCGTGTCTCCTTCTCTTG  
TGTGTACCTAAAGCCATATTTCCAAGTCTGTGGTACTCCAGGATTCCAGGAGTAAGCCTGTAGAAGAGATTTATT  
TTAAAGAGATTGCTCTGAAATTTATCTTAAAGAGCTTGCTCTGTCTACCTTGACAGAAATTGGAGTTTTAAAA  
TTATGTGTTAATATTTTATTTGCAGATTTTCGTTTCCGTCAACTTAAACATTTGTTGCCCTTCAACAAGGCTCTTG  
AATTAATAAAATTATAGTCTCTAAGAATTCACATTTTATGGAAGTTAGAGCAAAATCATTTTGAGTTAAGCCA  
GTTCTTAGCCTAATGCAAACTGCAGCGCCTTTAAGCATAAAGTAACACAACAGCATTGCACGGGGCCGGCACTGC  
CGCTGCCTTCACTGAAGGCTGCAGTGTCTGTTCTGAGAGCTTGAGGAGGCACCAGCGAGGATGACGTTTAGTGGA  
GCTCTTTCTGTTGAAAAGAGCTCACGTTATCAACACCTTGTAAGGAAAAATACAGTGTCTGAGTTTTTCATCGGTCT  
TCACATGCTGCTATATATTCACAGAGTTCCTTGATGTACTGAGCTTTTGTTTTAGATGGAATAGCACAAAGGAG  
AAAAATCTTTAACTTAGTGCTTTGTCTATTCTTTATTTCTCTCAGGGTGGCCAGTATTTTGACTTATTTATCCT  
GCTTGAAAGCTACTTGAGATGTGTACTGCTATTCTAAACACGTGATCTAGTTTCTTTTCATCTCTGGCATAAGATT  
ATATAACTTAATGTTAAGTGCTTGAGGCATAAAAGACAAAATGTGGCTTATTTTAGGATCTGTTTTTTCATCGA  
GGTCTCGGGTATCCTTTCAAAGATAGTGAGAAGCAGACACTGCTCCTTGTCAGCTCTGGTACCTCCTGCCCACT  
GCTGTCACTTCAAGCCACTGGCAATGCTTCTGTCTCGTGTCTTGAGGAAAAATCACCTGGGGGGAGGGGACTTC  
TTGTGGTAAGAGCAAGTGCAAGTATGAAATGCGAAGATTGCCCCAGCTAAAAGTGGAACAAGTCCGCTTTGTGAGA  
TGAATACTTCTGAGAACTTGACAAGTATCTCTCCATTTTACCATTATGAAAATCATTTAAAAAAACAGTT  
TAGATGCCTTCTCCTTTTGAGGGAAAAAGGGTGCTTTTTATTGTATAAAGCAGCGTCTTATGTATTTTGATATAC  
CATTTGTTTGAACCTCCGCTTTTAGCTGATAGATTCTCAAATATCCTTGATTTTGGATGTTTCTAGTATGTTTGTGAG  
AGAGGTTTCTGGGAAGACTCTCTTTTTGCCCTCGGGAAAAAGCAAAATATCAATGTTTGGGTGACTGTGTAAAGC

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**FIGURE 861B**

TCAGTGTGTAAGAACATCTTTTTGTCTAGGTTTTCTTTCTGCTCTTTATTGAAGACAAACACTCACCAAAAAGAA  
AAATAAAAGTTTTTCAGAGAACTAATTTTTCTTTGGCAAGAGTATTACTTAATATTTTGGCCTCCTAAAGTTTCCC  
TAGTTAGTACTCGGACTCCTGTGCTAATTGTCAGCTTACATATCATTGTATAGAGACTGTTTATTCTGTACCAA  
CTGATTTCAAAAGTACTACATTGAAAATAAACCGGTGACTGTTTTCTTCATAAAGTTCTGCGTTTGGCATCTTC  
ACTCTTTCCAAAATGTATCTGTACATCAGAAATGTCACTATTCCAAGTGTCTTTTAGTGTGGCCTTTAGTATGG  
CTTCCTTTTAATATTGTACATACATTGTATCTTTGTTTTATGGTAATAAGTAATAAAAATGTAGACTTCAAAAA  
AAAAGCGGCCGCAG

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**FIGURE 862**

MVVDAAANSNGPFQPVLLHIRDVPPADQEKLFIQKLRQCCVLFDFVSDPLSDLKWKEVKRAALSEMVEYITHNRN  
VITEPIYPEVVHMFVNMFRTLPPSSNPTGAEFDPEEDEPTLEAAWPHLQLVYEFFLRFLSPDFQPNIAKKYID  
QKFVLQELLEFDSEDPRERDFLKTTLHRIYGKFLGLRAYIRKQINNIFYRFIYETEHNGIAELLEILGSIINGF  
ALPLKEEHKIFLLKVLLPLHKVKSLSVYHPQLAYCVVQFLEKDSTLTPVVMALLKYWPKTHSPKEVMFLNELEE  
ILDVIEPSEFVKIMEPLFRQLAKCVSSPHFQVAERALYYWNNNEYIMSLISDNAAKILPIMFPSLYRNSKTHWNKT  
IHGLIYNALKLFMEMNQKLFDDCTQQFKAEKLEKLEKMKEREEAWVKIENLAKANPQYTVYSQASTMSIPVAMET  
DGPLFEDVQMLRKTVMKDEAHQAQKDPKKDRPLALRKSELPQDPHTKKALEAHCRADELASQDGR

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**FIGURE 863**

TTAATGGTAGGAATTTGTATTTTTTGCCTTTGTTTCAGAATACATGACATTGGTAAATATGCCACATGCCTTTGGT  
GGAAGTACAACCTGTTGTTATTACTCTATAACAAGTATGAGATCAGGGTTAGGAAAAAAGACAAAGAGGTGATGAC  
AGACACACAGTGGAACCCACATCGTCTCATGGCAAACCGAAGAACGGGATGTGGGAAGCTCAGCTTCATTGGA  
CTGCAAAGTCCCAGGGTTTTGTTGCACATTTGCTCATGCACATGGGTGGTGGGAGGAAAGGGGGATAGCAGAGAC  
ACACAGAAGAGGGTACAGGGTGGGTGAGAAAGAAAGTAGAAGGGCTAATACCCCCAAAGAACAAGGCCAACTACA  
CCTGGTGAGCCTCAGAGGGACAGAAACCCAGGAATGATTCTT



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**FIGURE 864A**

CGAATTCCCCCTCCCCTCCCCATAACATGCCCACTGCCCAAATAAAAAAAAAACCAACTATGGGAGAGCAGCC  
GAGACAGCAACTAGGGGCAGGGGAAAAGAGACATGGAACCTGAGGGCAGCGGTGAAGAGACCATGCGTGTGCTGGG  
AGGGCCAGAGGCAGCGGGCGGCACAAACAGCGCAGGTACGAGTCTCTGTGTCTTCCCCGGGGTTATGTATAAATA  
TAGAGAGATGAGGCCTTCTCTCCCCTGCTCTCCCTTCCGCTCCGTGCTGCTCGCCGCGGTCCCAGCTCCTCTTTC  
CACATGAGGGCGAAGGGAAGGGGGGATGAACAAGTCATCACCGAATTGCAATCAGACCCACATCCATCAGCTTCT  
GGATCTTCTGTGCTATTACAGGATTCTTTAAGTGTTCGCTGAGTGCCTGCTCCTGGGGACAATTCCTTTTTCCTT  
TCTTCAGCCTAACCCGCGGTGGCCCTCGCGGAGTCCGGTCAGCCCCGGGGAGCGCAACCCGGGAGGGGCGTCCAA  
GGGGCGTCTCGCGTCTGGGAACGGCCGGGCCCCCAGCGGGCTGTGGTTCGCGGGGTGGGGGCCGGAGCGGCGAGGC  
CCCCCTTACCGGGCTGCGCAGGCCGCCAGGGCCCCCGGGCTGAGACGGGGCCGGAGCGGCGCCCCGGCCGCCCG  
CGCGGGGTCTCCCCCATGGTGCAGCGGGGTTCGGG**ATGT**CGAAGACGCTGAAGAAGAAGAAGCACTGGCTCAGCA  
AGGTGCAGGAGTGCGCCGTGCTCTGGGCCGGGCCCCCGGGCGACTTCGGCGCGGAGATCCGCGGTGGCGCGGAGC  
GTGGCGAATTCCCCTACCTGGGGCGGCTCCGCGAAGAACCCGGCGGGGGCACCTGCTGCATCGTCTCGGGCAAGG  
CGCCCAACCCAAGCGATGTGCTGCTGGAGGTAAACGGGACGCTGTGAGCGGGCTCACCAACCGGGACACCCTGG  
CTGTCTATCCGCCACTTCCGCGAGCCCATCCGTCTCAAGACTGTGAAACCAGGCAAAGTCATTAATAAAGATTTCG  
GGCATTACCTAAGTCTTCAGTTTCAAAAAGGATCAATTGACCACAAACTGCAGCAAGTGATCAGAGATAATCTCT  
ACTTGAGAACCATTCCATGCACTACAAGGGCCCCCAGGGATGGAGAAGTACCAGGAGTGGATTATAATTTTCATTT  
CCGTTGAACAGTTCAAAGCACTGGAGGAGAGTGGAGCATTGTTAGAAAGTGGGACATATGATGGAACTTCTATG  
GAACTCCCAAGCCTCCAGCAGAACCCAGCCCTTTTCAGCCAGATCCAGTTGATCAAGTCCTCTTTGATAATGAGT  
TTGATGCAGAATCTCAAAGAAAACGAACGACATCTGTGAGCAAGATGGAAAGAATGGATAGCTCTCTTCCTGAAG  
AGGAAGAAGATGAGGACAAGGGAGCTATTAATGGCAGTGGAAACGCAGAAAACAGAGAGAGGCATTCTGAGTCAT  
CTGACTGGATGAAGACTGTTCCAAGTTACAACCAAAACAAATAGCTCCATGGACTTTAGAAATTATATGATGAGAG  
ATGAGACTCTGGAACCACTGCCCAAAAACCTGGGAAATGGCCTACACTGACACAGGGATGATCTACTTCATTGACC  
ACAATACCAAGACAACCACTTGGTTGGATCCTCGTCTTTGTAAAGAAAGCCAAAGCCCCTGAAGACTGTGAAGATG  
GAGAGCTTCTTATGGCTGGGAGAAAATAGAGGACCCTCAGTATGGGACATACTATGTTGATTTCACTCTTGTCG  
CCCAAGCTGGAGTGCAATGGCATGATCTCGGCTCACTGCAACCTCCGCCTCCTGGGTTCAATCACCTTAACCAGA  
AAACCCAGTTTGAAAAATCCAGTGGAGGAAGCCAAAAGGAAAAAGCAGTTAGGACAGGTTGAAATTGGGTCTTCAA  
AACCAGATATGGAAAAATCACACTTCACAAGAGATCCATCCCAGCTTAAAGGTGTCTTGTTCGAGCATCACTGA  
AAAAAGCACAAATGGGATTTGGTTTTACTATTATTGGTGGAGATAGACCTGATGAGTTTCTACAAGTGAAAAATG  
TGCTGAAAGATGGTCCCGCAGCTCAGGATGGGAAAATTGCACCAGGCGATGTTATTGTAGACATCAATGGCAACT  
GTGTCTTCGGTCACACTCATGCAGATGTTGTCCAGATGTTTCAATTGGTACCTGTCAATCAGTATGTAAACCTCA  
CTTTATGTCGTGGTTATCCACTTCTGATGACAGTGAAGATCCTGTTGTGGACATTGTTGCTGCTACCCCTGTCA  
TCAATGGACAGTCATTAACCAAGGGAGAGACTTGCATGAATCCTCAGGATTTTAAAGCCAGGAGCAATGGTTCTGG  
AGCAGAATGGAAAAATCGGGACACACTTCGACTGGTGATGGTCTCAATGGACCATCAGATGCAAGTGAGCAGAGAG  
TATCCATGGCATCGTCAGGCAGCTCCCAGCCTGAACTAGTGACTATCCCTTTGATTAAGGGCCCTAAAGGGTTTG  
GGTTTGCAATTGCTGACAGCCCTACTGGACAGAAGGTGAAAATGATACTGGATAGTCAGTGGTGTCAAGGCCTTC  
AGAAAGAAGATATAATTAAGGAAATATACCATCAAAATGTGCAGAATTTAACACATCTCCAAGTGGTAGAGGTGC  
TAAAGCAGTTTCCAGTAGGTGCTGATGTACCATTGCTTATCTTAAGAGGAGGTCTCCTTCAACAACCAAAACTG  
CCAAAATGAAAACAGATAAAAAGGAAAATGCAGGAAGTTTGGAGGCCATAAATGAGCCTATTCTCAGCCTATGC  
CTTTTCCACCGAGCATTATCAGGTGAGGATCCCCAAAATTGGATCCTTCTGAGGTCTACCTGAAATCTAAGACTT  
TATATGAAGATAAACACCAACCAACCAAGATTTGGATGTTTTTCTTCGAAAACAAGAGTCAGGGTTTGGCTTCA  
GGGTGCTAGGAGGAGATGGACCTGACCAGTCTATATATATTGGGGCTATTATTTCCCCTGGGAGCAGCTGAGAAAG  
ATGGTTCGGCTCCGCGCAGCTGATGAACTAATGTGCATTGATGGAATTCCTGTTAAAGGGAAATCACACAAACAAG  
TCTTGGACCTCATGACAACTGCTGCTCGAAATGGCCATGTGTTACTAACTGTCAGACGGAAGATCTTCTATGGAG  
AAAAACAACCCGAGGACGACAGCTCTCAGGCCTTCATTTCAACACAGAATGGATCTCCCCGCCTGAACCGGGCAG  
AGGTCCCAGCCAGGCCCTGCACCCAGGAGCCCTATGATGTTGTCTTGCACGAAAAGAAAATGAAGGATTTGGCT  
TTGTCTATCCTCACCTCCAAAAACAAACCACCTCCAGGAGTTATTCCTCATAAAATTGGCCGAGTCATAGAAGGAA  
GTCCGGCTGACCGCTGTGGAAAACCTGAAAGTTGGAGATCATATCTCTGCAGTGAATGGGCAGTCCATTGTTGAAC  
TGTCTCATGCTAACATTGTTGAGTGTGATCAAGATGCTGGTGTACCGTCACACTAACGGTCATTGCTGAAGAAG

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**FIGURE 864B**

AGCATCATGGTCCACCATCAGGAACAACTCAGCCAGGCAAAGCCCAGCCCTGCAGCACAGGCCCATGGGACAGT  
CACAGGCCAACACATACCTGGGGACAGAAGTGCCCTAGAAGGTGAAATTGGAAAAGATGTCTCCACTTCTTACA  
GACATTCTTGGTCAGACCACAAGCACCTTGACAGCCTGACACCGCAGTAATTTAGTTGTAGGCAGTCGGCACA  
ATCAGAACCTTGGTTGTTATCCAGTAGAGCTGGAGAGAGGCCCCCGGGGCTTTGGATTAGCCTCCGAGGGGGGA  
AGGAGTACAACATGGGGCTGTTTCATCCTTCGTCTTGCTGAAGATGGTCCTGCCATCAAAGATGGCAGAATTCATG  
TTGGTGACCAAATTGTTGAAATCAATGGGGAACCTACACAAGGAATCACACATACTCGAGCAATTGAGCTCATT  
AGGCTGGTGGAAATAAAGTTCTTCTTTTGAGGCCAGGAACTGGCTTGATACCTGACCATGGTTTGGCTCCTT  
CCGGTCTGTGCTCCTACGTGAAACCCGAGCAACATTAAAGGCTTTCAGGGCTTTTCTTGGTCTTTCCTTAAAAAGA  
CTTGGTAAATTTGCATGTCTTGTAATCACTTTCTTTTGTCTTTTAAATTAAAAATGATGCTATTAAAT  
AAAAAAAAAAAAA

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**FIGURE 865**

MSKTLKKKKHWLSKVQECASWAGPPGDFGAEIRGGAERGEFPYLGRRLREEPGGGTCCIVSGKAPNP SDVLLLEV N  
GTPVSGLTNRD TLAVIRHFREPIRLKTVKPGKVINKDLRHYLSLQFQKGSIDHKLQQVIRDNLYLRTIPCTTRAP  
RDGEVPGVDYNFISVEQFKALEESGALLES GTYDGNFYGTPKPPAEPSPFQPD PVDQVLF DNEFDAESQRKR TTS  
VSKMERMDSSLPEEEEEDEDKGAINGSGNAENRERHSESSDWMKTVP SYNQTNSSMDFRNYMMRDETLEPLPKNWE  
MAYTDTGMIYFIDHNTKTTTTWLDPR LCKKAKAPEDCEDGELPYGWEKIEDPQYGTYYVDFTLVAQAGVQW HDLGS  
LQPPPPGFNHLNQKTQFENPV EEAKRKKQLGQVEIGSSKPDMEKSHFTRDPSQLKGV LVRASLKKSTMGF GFTII  
GGDRPDEFLQVKNVLKDGPA AQDGKIAPGDVIVDINGNCVFGH THADVQMFQLVPVNQYVNLTL CRGYPLPDDS  
EDPVVDIVAATP VINGQSLTKGETCMNPQDFKPGAMVLEQNGKSGHTSTGDGLNGPSDASEQRVSMASSGSSQPE  
LVTIPLIKGPKGFGFAIAD SPTGQVKMILDSQWCQGLQKEDIKEIYHQNVQNLTHLQVVEVLKQFPVGADVPL  
LILRGGPPSTTKTAKMKTD KKENAGSLEAINEPI PQMPFPFPIIRSGSPKLPSEVYLKSKTLYEDKPPNTKDL  
DVFLRKQESGFGFRVLGGD GPDQSIYIGAI IPLGAAEKDGR LRAADELMCIDGIPVKGKSHKQVLDLMTTAARNG  
HVLLTVRRKIFYGEKQPEDDSSQAFISTQNGSPRLNRAEVPARPA PQEPYDVVLQRKENEGFGFVILTSKNKPPP  
GVIPHKIGRVIEGSPADRCGKLKVG DHI SAVNGQSIVELSHANIVQLIKDAGVTVTLTVIAEEHHGPPSGTNSA  
RQSPALQHRPMGQS QANHIPGDRSALEGEIGKDVSTSYRHSWSDHKHLAQPD TAVISVVGSRHNQNLGCYPVELE  
RGPRGFGFSLRGGKEYNMGLF ILRLAEDGPAIKDGRIHVGDQIVEINGEPTQGITHTRAIELIQAGGNKVLLLLLR  
PGTGLIPDHGLAPSGLC SYVKPEQH

**FIGURE 866**

**FIGURE 866**

[illegible]

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**FIGURE 867**

MDFSRNLYDIGEQLDSEDLASLKFLSLDYIPQRKQEPKDALMLFQRLQEKRMLEESNLSFLKELLFRINRLDLL  
ITYLNTRKEEMERELQTPGRAQISAYRVMLYQISEEVSRSELRSFKFLLQEEISKCKLDDDMNLLDIFIEMEKRV  
ILGEGKLDILKRVCAQINKSLLKIINDYEEFSKERSSSLEGSPDEFSNDFGQSLPNEKQTSGILSDHQQSQFCKS  
TGESAQTSQH

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**FIGURE 868**

AAGCTAAATAAATATAGCTTTATTTCATCTTTCAGAGATTGCCATTTAGCCTAGAAAATTACATCAAAAGATGAAC  
TGATTTTTTGCTTGAAAAAGTCAACCATGTTTAATTGCTCACACAATTTTAATTACAACAGATGTAATTTCTAATA  
TATACCATTTCGATCACACACCATTTTTATGTTCTGGAGTGAGACCTGGGAGTATTTTGCTTAAGACTTTCTCATT  
CTCTAAACTAGCTTTGGCAGTTAACAATGTGGAGAATTCAGCACAAAAAGCACCCTAGCCCAGCCTTTTTATTT  
TATTTTTTTAAATCTCTATTTAACCTTCAAAGTTTCCTTTGCAGCCATATGCATTTCTAGGTGGCTCTACCTGT  
AGAAGGCTGCACTTTCCAAGCGGCGAGGGACTTTAATTCTCACTTXCCACCACTCC

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**FIGURE 869**

GGCACGAGGGAGGTCTGCATGAAGGGGATCCCCTACATCGCAGCCTACCAGAAGGAACTGGCTCATTCCCAGCCG  
GCGGTGCAGCCCCGGCTCAAGCTGCTCCTGATGGGGCATAAAGCTGCAGGAAAGACTTTGCTGCGCCACTGCCTC  
ACCGAGGAGAGAGTGGAGGGATGCCAGGAGGAGGGGACAAGGAGAAGTGCTACCCACCGTCACCTCCCCCTGTG  
AGCAAGGGCATCGAGGTGACCAGCTGGACGGCCGATGCCTCCCGGGGCTGCGGTTTCATCGTGTATGACTTAGCT  
GGGGATGAAAGTTATGAGGTGATCCAGCCCTTCTTCTGTCCCCAGGGGGCCCTATACGTGCTGGTGGTCAACTTG  
GCCACCTATGAGCCTCGCCACTTTCCTACCACCGTGGGCTCCTTCTTGCATCGGGTCGGGGCGAGAGTGCCCCAC  
GCGGTGGTGTGCATCGTGGGCACCCACGCAGACCTGTGCGGAGAGCGTGAGCTGGAGGAGAAATGTCTGGACATT  
CACCGCCAGATCGCCCTGCAGGAGAAGCACGACGCGGAGGGACTGAGCCGCTTGGCCAAGGTGGTGGACGAGGCA  
CTGGCCCCGGGACTTCGAGCTGCGCTCTGCCAGCCCCCACGCAGCCTACTATGGCGTTTCGGACAAGAACCTTCGA  
CGGCGCAAGGCCCATTTTCAATACCTGCTCAACCACCGGCTGCAGATCCTCTCCCCCGTGTTCCTGTTAGCTGC  
AGGGACCCGCGCCACTTACGACGCCTTCGGGACAAGTTGCTGTGTCAGTTGCTGAGCACCGAGAGATCTTCCCCAAC  
TTACACAGAGTACTGCCTCGATCCTGGCAGGTGCTGGAGGAACTGCATTTCCAGCCACCTCAGGCCAGCGACTG  
TGGCTAAGCTGGTGGGACTCGGCGCGCTTGGGCCTGCAGGCGGGTCTGACCGAGGACCGACTGCAGAGTGCCCTC  
TCCTACCTGCATGAGAGCGGCAAGCTACTCTACTTTGAGGACAGTCCGGCTCTCAAGGAGCACGTCTTCCACAAC  
CTCACCCGCCTCATCGACATCCTCAATGTCTTCTTCCAGAGGGATCCCTCTTTGCTGCTGCATAAGCTGCTCCTA  
GGGACCAGTGGAGAGGGCAAGGCGGAGGGGAAAGCTCCCCGCCATGGCGCGGTCCACCCCCAGCCAGGAAGTGC  
CTCCGGGCCACCCAGCTCCATCAGTATGTGGAGGGCTTCTGTTGCATGGGCTCTTGCCAGCTCATGTCAATTCGG  
TTGCTGCTTAAGCCTCATGTCCAGGCCCAGCAGGACTTGCAGCTGTTGCTGGAGCTGCTGGAGAAGATGGGACTC  
TGTTACTGCCTCAATAAACCCAAAGGGCAAGCCTTTGAATGGGTCCACAGCTTGGTACAAGTTCCCATGCTATGTG  
CAGAACGAGGTGCCCCATGCAGAAGCCTGGATTAATGGGACCAACCTAGCTGGGCAGTCTTTTGTGGCTGAGCAG  
TTGCAGATTGAATATAGCTTTTCTTTTACTTTTCCACCTGGGTTGTTTGCACGCTACAGTGTCCAGATCAACAGC  
CATGTGGTGCACAGGTGCGATGGTAAATTTTCCAGATCTTTGCCTATAGAGGGAAAGTTTCTGTGGTTGTGAGTTAC  
AGACCTGCCAGGGGAGTCTGCAGCCAGACACCCTGTCCATTGCTAGCCATGCATCATTACCAAATATATGGACC  
GCATGGCAAGCCATAACCCCTTGGTGGAGGAACTGAATGTCTTACTTCAGGAATGGCCTGGACTGCACTACACC  
GTGCACATTCTCTGTTCTAAGTGCCTTAAGAGAGGATCGCCCAATCCACATGCTTTTCCAGGGGAGTTGCTGAGT  
CAGCCCAGACCGGAAGGAGTGGCAGAGATCATTGCCCCAAGAACGGCAGCGAGCGAGTAAATGTTGCCTTGGTT  
TACCCACCCACGCCGACTGTGATCAGCCCCCTGTTCCAAGAAGAATGTTGGTGAAAAGCACAGAAACCAGTGACGT  
TTGTGGCTGTGGAATTTCCATGGAGAAAAGAGAGCATCTGAACACCTGGACCATCTTTTGCACCTGGCAGACCTT  
CTGCACTCACCCCAGCGTGTCTGTGAACCTTGAGTGACAACGCGTGCTTGAGGGTGCTTTTTTGGATGACTGGGG  
AAGAGGTGGGGAGGGGTGGTGGGGGAAGCATGGACGAGAACATGGAGCAAATGTTTTACAACCTGAACCTCAG  
AACTGTGATCCTCCAAGGAGCGCGCTACTTGAAGAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 870**

**ATG**CGGGAGATCGTGCACATCCAGGCCGGCCAGTGCGGCAACCAGATCGGGGCCAAGTTCTGGGAAGTCATCAGT  
GATGAGCATGGCATCGACCCAGCGGCAACTACGTGGGCGACTCGGACTTGCAGCTGGAGCGGATCAGCGTCTAC  
TACAACGAGGCCTCTTCTCACAAGTACGTGCCTCGAGCCATTCTGGTGGACCTGGAACCCGGAACCATGGACAGT  
GTCCGCTCAGGGGCCTTTGGACATCTCTTCAGGCCTGACAATTTTCATCTTTGGTCAGAGTGGGGCCGGCAACAAC  
TGGGCCAAGGGTCACTACACGGAGGGGGCGGAGCTGGTGGATTTCGGTCCTGGATGTGGTGCAGGAAGGAGTGTGAA  
AACTGCGACTGCCTGCAGGGCTTCCAGCTGACCCACTCGCTGGGGGGGGGACGGGCTCCGGCATGGGCACGTTG  
CTCATCAGCAAGGTGCGTGAGGAGTATCCCGACCGCATCATGAACACCTTCAGCGTCGTGCCCTCACCCAAGGTG  
TCAGACACGGTGGTGGAAACCTACAACGCCACGCTGTCCATCCACCAGCTGGTGGAAAACACGGATGAAACCTAC  
TGCATCGACAACGAGGCGCTCTACGACATCTGCTTCCGCACCCCTCAAGCTGGCCACGCCCACCTACGGGGACCTC  
AACCACCTGGTATCGGCCACCATGAGCGGAGTCACCACCTCCTTGCGCTTCCCGGGCCAGCTCAACGCTGACCTG  
CGCAAGCTGGCCGTCAACATGGTGCCCTTCCCGCGCCTGCACTTCTTCATGCCCGGCTTCGCCCCCTCACCAAG  
CGGGGCAGCCAGCAGTACCGGGCCCTGACCGTGCCGAGCTCACCCAGCAGATGTTTCGATGCCAAGAACATGATG  
GCCGCTGCGACCCGCGCCACGGCCGCTACCTGACGGTGGCCACCGTGTTCCGGGGCCGCATGTCCATGAAGGAG  
GTGGACGAGCAGATGCTGGCCATCCAGAGCAAGAACAGCAGCTACTTCGTGGAGTGGATCCCCAACAACGTGAAG  
GTGGCCGTGTGTGACATCCCGCCCCGCGGCCTCAAGATGTCTCCACCTTCATCGGGAACAGCACGGCCATCCAG  
GAGCTGTTCAAGCGCATCTCCGAGCAGTTACCGCCATGTTCCGGCGCAAGGCCTTCTGCACTGGTACACGGGC  
GAGGGCATGGACGAGATGGAGTTCACCGAGGCCGAGAGCAACATGAACGACCTGGTGTCCGAGTACCAGCAGTAC  
CAGGACGCCACGGCCGAGGAAGAGGGCGAGATGTACGAAGACGACGAGGAGGAGTCGGAGGCCAGGGCCCCAAG  
**TGAA**ACTGCTCGCAGCTGGAGTGAGAGGCAGGTGGCGGCCGGGGCCGAAGCCAGCAGTGTCTAAACCCCCGGAGC  
CATCTTGCTGCCGACACCCTGCTTTCCCCATCGCCCTAGGGCTCCCTTGCCGCCCTCCTGCAGTATTTATGGCCT  
CGTCCTCCCCACCTAGGCCACGTGTGAGCTGCTCCTGTCTGTCTTATTGCAGCTCCAGGCCTGACGTTTTAC  
GGTTTTGTTTTTTACTGGTTTGTGTTTATATTTTCGGGATACTTAATAAATCTATTGCTGTCAGATACCCTT



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**FIGURE 871**

MREIVHIQAGQCGNQIGAKFWEVISDEHGIDPSGNYVGSDQLERISVYYNEASSHKYVPRAILVDLEPGTMDS  
VRSGAFGHLFRPDNFI FGQSGAGNNWAKGHYTEGAELVDSVLDVVRKECENCDCLOGFQLTHSLGGGTGSGMGTL  
LISKVREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSIHQLVENTDETYCIDNEALYDICFRTLKLATPTYGDL  
NHLVSATMSGVTTSLRFPQQLNADLRKLAVNMVFPRLHFFMPGFAPLTRRGSQQYRALTVPELTQQMFDKNMM  
AACDPRHGRYLTVATVFRGRMSMKEVDEQMLAIQSKNSSYFVEWIPNNVKVAVCDIPPRGLKMSSTFIGNSTAIQ  
ELFKRISEQFTAMFRRKAFLHWYTGEGMDEMEFTEAESNMNDLVSEYQQYQDATAEEEGEMYEDDEEESEAQGP

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**FIGURE 872**

ACGCCCTATACAACCTTGGCTTCACATACTTTTACACTAACTTTATATGATTTTTAAAACTGGTCTGATCGGACT  
TCTCGTCTCTGGGACACTGTTTACTGGAGTCTGGCCGGCTCTCCGTGCTCCTCTTGGTACCTCATTTTGGGGAGAA  
CCTTAAACCCACTCGAGCAGATAATCTCCGCCTTGACCGGTGCCACCAAAGAAGGGTTGGAACCATGTGGACTTT  
TCTGGGCATTGCCACTTTCACCTATTTTTATAAGAAGTTCGGGGACTTCATCACTTTGGCCAACAGGGAGGTCCT  
GTTGTGCGTGCTGGTGTTCCTCTCGCTGGGCCTGGTGCTCTCCTACCGCTGTGCGCACCGAAACGGGGGTCTCCT  
CGGGCGCCAGCGGAGCGGCTCCAGTTCGCCCTCTTCTCGGATATTCTCTCAGGCCTGCCTTTCATTGGCTTCTT  
CTGGGCCAAATCCCCCCTGAATCAGAAAATAAGGAGCAGCTCGGGGCCAGGAGGCGCAGAAAAGGAACCAATAT  
TTCAGAAACAAGCTTAATAGGAACAGCTGCCTGTACATCAACATCTTCTCAGAATGACCCAGAAGTTATCATCGT  
GGGAGCTGGCGTGCTTGGCTCTGCTTTGGTAGCTGTGCTTTCAGAGATGGAAGAAAGGTGACAGTCATTGAGAG  
AGACTTAAAGAGCCTGACAGAATAGTTGGAGAATTCTGTCAGCCGGGTGGTTATCATGTTCTCAAAGACCTTGG  
TCTTGGAGATACAGTGGAAGGTCTTGATGCCCAGGTTGTAAATGGTTACATGATTCATGATCAGGAAAGCAAATC  
AGAGGTTTCAGATTCCCTTACCCTCTGTCAGAAAACAATCAAGTGCAGAGTGGAAGAGCCTTCCATCACGGAAGATT  
CATCATGAGTCTCCGGAAGCAGCTATGGCAGAGCCCAATGCAAAGTTTATTGAAGGTGTTGTGTTACAGTTATT  
AGAGGAAGATGATGTTGTGATGGGAGTTTCAGTACAAGGATAAAGAGACTGGAGATATCAAGGAACCTCCATGCTCC  
ACTGACTGTTGTTGCAGATGGGCTTTTTCTCCAAGTTCAGGAAAAGCCTGGTCTCCAATAAAGTTTCTGTATCATC  
TCATTTTGTGGCTTTCTTATGAAGAATGCACCACAGTTTAAAGCAAATCATGCTGAACCTATTTTAGCTAACCC  
GAGTCCAGTTCTCATCTACCGATTTCATCCAGTGAACTCGAGTACTTGTGACATTAGAGGAGAAATGCCAAG  
GAATTTAAGAGAATACATGGTTGAAAAAATTTACCCACAAATACCTGATCACCTGAAAGAACCATTCTTAGAAGC  
CACTGACAATTCTCATCTGAGGTCCATGCTAGCAAGCTTCCTTCCTCCTTCATCAGTGAAGAAACGAGGTGTTCT  
TCTTTTGGGAGACGCATATAATATGAGGCATCCACTTACTGGTGGAGGAATGACTGTTGCTTTTAAAGATATAAA  
ACTATGGAGAAAACCTGCTAAAGGGTATCCCTGACCTTTATGATGATGCAGCTATTTTCGAGGCCAACAAATCATT  
TTACTGGGCAAGAAAAACATCTCATTCCCTTGTGCTGAATATCCTTGCTCAGGCTCTTTATGAATTATTTCTGC  
CACAGATGATTCCCTGCATCAACTAAGAAAAGCCTGTTTTCTTTATTTCAAACCTGGTGGCGAATGTGTTGCGGG  
TCCTGTTGGGCTGCTTCTGTATTGTCTCCTAACCTCTAGCTTTAATTGGACACTTCTTTGCTGTTGCAATCTA  
TGCCGTGTATTTTGTCTTAAAGTCAGAACCTTGATTACAAAACCTCGAGCCCTTCTCAGTAGTAGTGCTGTATT  
GTACAAAGCGTGTTCTGTAATATTTCTCTAATTTACTCAGAAATGAAGTATATGGTTTCATTAAGCTTAAAGGGG  
AACCATTTGTGAATGAATATTTGGAACCTTACCAAGTCCTAAGAGACTTTTGGAGAGGATATATATAGCATAGTA  
CCATACCACCTTATAAAGTGGAACCTCTTGACCAAGATTTGGATTAATTTGTTTTGAAGTTTTTGTATATAAA  
TATGTAAATACATGCTTTAATTTGCAATTTAAAATGAAGGGTTAAATAAGTTAGACATTTGAAAGAAATGATTG  
TTACCATAAATTAGTGCTAATGCTGAGGAGAACTACAGTTTTTCTTTTGAATTTAGTATTTGAGATGAGTTGTTG  
GGACATGCAAATAAAATGAAGAATGAC

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**FIGURE 873**

MWTF LGIATFTYFYKKFGDFITLANREVLLCVLVFLSLGLVLSYRCRHRNGLLGRQRSGSQFALFSDILSGLPF  
IGFFWAKSPPESENKEQLGARRRRRKGTNISETSLIGTAACTSTSSQNDPEVIIVGAGVLGSALVAVLSRDGRKVT  
VIERDLKEPDRIVGEFLQPGGYHVLKDLGLGDTVEGLDAQVVNGYMIHDQESKSEVQIPYPLSENNQVQSGRAFH  
HGRFIMSLRKAAMAEPNAKFIEGVVLQLEEDDVVMGVQYKDKETGDIKELHAPLTVVADGLFSKFRKSLVSNKV  
SVSSHVVGFLMKNAPQFKANHAELILANPSPVLIYRISSETRVLVDIRGEMPRNLREYMVEKIYPQIPDHLKEP  
FLEATDNSHLRSM LASFLPPSSVKKRGVLLLGDAYNMRHPLTGGGMTVAFKDIKLWRKLLKGIPDLYDDAAIFEA  
NKSFYWARKTSHSFVVNILAQALYELFSATDDSLHQLRKACFLYFKLGGEVAGPVGLLSVLSPNPLALIGHFFA  
VAIYAVYFCFKSEPWITKPRALLSSSAVLYKACSVIFPLIYSEM KYMVH

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**FIGURE 874**

GGCGCCATTTTGGCTGGAGCCTGCGACCGAGTGGGAGTGGAGTGGAGCGGCTGTGGTTGCCGACTCTTCTCTTC  
CCCACGGTCCAGTCAGCGGGTTAATTAGGCCATCGGCCCTCGAGCCGAGACTTGTCTCTTATTTAGTTCTGGGGA  
GCGCCTCGTCGACATGAGTGTGAGGAAAACAACCTTCGAGGGCAGAGTGAGTACAAAGCCGCGGGAGCCGTC  
TAGGCGGCGGCCAATGCTCGGGTTTACAGGAAACAAGCGCGGTCGGGCGGGGTTGCGGGTAGTCCC CGAGGA  
GCAACCTCTGGAGCCATCGCGATTGATTCCCTCCCATCCCAAGATGGCTTCTGGGTTCCTTCCCTCCCAACAC  
CACGGATAACACCCCTCCCTTTTTTGGAGGCTGACTGATACCTGGACTTCTGGGTCTCTTCCCTCCCGCCC  
CCGCATTGCTTCTCTCCCTTCTCCCCACCCCTGAGGCTTCTTATGTCTGCTCCGAGGTGTGGGTCCCGTCGCGG  
TTGGGCGGGAGGAGGCGGCAGGGAGCTCCCTCCGTCCGGATAGTGGTAGGTGCTTCTGCGGTGGCATTCTG  
CGACCCCGAGCATCGTAGAGGGTCTCGGGATCGAAAGTGC GCGGGGCTGCTTCCGGGCGGGGAGAAGCTGGCGT  
GGGACTAGCTGGGGCTGTGTCTCTTGGCTCTCTATTTAGTGAGCGGCCGCGTCTCTGTGGAACGGCGGCG  
TTGCGTCTAAAAAGGCGAAAGCCTTGAGGTTGAAGGTGGGACGAGCCTAATGAAGTGGTTAGTCAACGACCGCAC  
CGACCCCTTAAGCGTTCTTAAGACGAGAGCTGTGAGGGGAAACTACGCAAGGAGCCCTTTTCCCTTAATGTCCCTT  
CGACTTTCTTTCACTTCGAAATGAATGTGGAATGCTGTACGCCTTATTTTTCTAATTCCTCGATGTTGGGTT  
TTTTCTCTTCTTTATATCTCAACTTTTAATGCTCTTCTTCTTATGACCTTTTCTAATAAAGTACCACTCCTTT  
ACAGGTTTTTACGGTAAAAAATCGGTCTTTCTTTAATCTTACATAGCTGAACGAATTCATTGGCTCAG  
TATTTTTAAGATAACTAGTCAGTATATACTGTTCTGTAACCTTAAAGATGACCTGAAAATTAACAGGCCCTCTCC  
CATTTCTCTTCTCACTCTATCCCCACCGAAGAGGGCTCAGAAAAAGTTTTTATTAATATATTTGGGGTCGGAG  
AAATACAAACATCACAAAGAATACGATATCCCAGCTTAAATGTACTGGAACGTTTGTGAGTGAGTTTCATTTC  
AAAGTTTACCCTACATAGGGAATTGTAGAAGTGAGTTAGTAGAAGTGAGTTCGTGTGAAACCCTGGAAAGAAAC  
AAAAGCCCCATGCAACACGTTCCGGGCTGTTGTGTAGATGTTTATTCTAGTCACTAGGGGAAGCACATAAAAC  
CCTGAGGTGTGTGTGCTGAAGGGCGAATTTTGTCTTTTGGGGAGTTCATGATATAAACATCTAGAACC AAAAG  
TCAAATCAGAAGGTCAGTTTAGGCTTTAGTTCTCTTTGAGGAAAGATTTAAAGCAATAGACTATAATAGTTACCC  
GGTAGACTAAAAAATTTGCCTTTAATCTTTTGATTGGAATTTTTTTTACAAAGTTTGGAGCATGGAAACAAAT  
GAAAATTGAACCTGCTTATTTTTTAGGATGGTGTATTGATGGCCCCAACAGAACTTTCTAAAATCATGCGATAAA  
CATATATGATAGTAGTTGTAAAATGCTTCTTGTTTTGAAGTGTGAGTAATTATCGATAGAAATTTTGCTGTCC  
ATTATACATTCTTCAATTAACCTTTCATTGTTAAAAAATTGGGGGATTGATGTTTGGTTTGGTTTGTGGGGAGT  
GAAGAGGACTACTGGAGGGACCTTGTTTGCTTGTCTTTTTTCTTTTTTAAATTTATCATCAAGTCTAGGAAAGGA  
GTAAGTTGCCGACAATTGTCACCTTTCCCTCCTAAGAAAGTAACATGTAAAGATTCCCACCTACCAGCCTGGGTG  
ACAGTGAGACTCCCGTCTC NNNNNNNNNNNNNNNNNNNNTTCCACCCACTTTTAAGCTAAAGTATATGTAGGCA  
TTAAAGATTTATTTAATAGAAATAAAGGGCCCTCTTACGGCCCTTTGTGGTCATAGGAAATATTTTTTTCACAAG  
TGGTACCCAAGTGATTTT

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**FIGURE 875**

RHFAGACDRVGVEWSGCGCRLFPLPHGPVSGLI RPSALEPRLVSYLVLSASST

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**FIGURE 876**

CCGCCGCCCATCTGAGGGAGGTACCCTGGAAACCACCTTTTATCGGTGGGGAAGTGCAGTCGCGGTGGGCGGC  
TCTGGGGGCCAGCGAAACGGGAGGCCTCTAAATCTTTAGGTTGGGGCTGCATTGCCCTGGAGCCGCACTCTTGAG  
TCCGAGGCCATCTTTTGTGGAGAAGGCGTCGGCGTTGGCGTTTTCCCGAGGTGGGCTGTACAGTGCTCCGTC  
CGCGGAAAAAGAAGCCTCTGAACCCGCGCCGGCCCGCAGCCCCCGTGCCTTCCGGCCGCTGCTCGCCGTCGCCAG  
AGGCTAGGCCACGTTTCCCCCAGTGCCGAGGTGTTTCTGTGACCCTCCCTCCACTCCCATTCCTTCTGAAAGGG  
CACCTGCTCTTGGTGAGAAAAGAAATTATAGCACGAAGAGCCAGTATCAGAAGAGTATCCATCACCCGCAGCAAC  
CGCTCAGGGAACACCATCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 877**

CTCGACTCTTAGCTTGTCGGGGACGGTAACCGGGACCCGGTGTCTGCTCCTGTCGCCTTCGCCTCCTAATCCCTA  
GCCACTATGCGTGAGTGCATCTCCATCCACGTTGGCCAGGCTGGTGTCCAGATTGGCAATGCCTGCTGGGAGCTC  
TACTGCCTGGAACACGGGCATCCAGCCCGATGGCCAGATGCCAAGTGACAAGACCATTGGGGGAGGAGATGACTCC  
TTCAACACCTTCTTCAGTGAGACGGGCGCTGGCAAGCACGTGCCCCGGGCTGTGTTTGTAGACTTGGAACCCACA  
GTCATTGATGAAGTTCGCACTGGCACCTACCGCCAGCTCTTCCACCCTGAGCAGCTCATCACAGGCAAGGAAGAT  
GCTGCCAATAACTATGCCCCGAGGGCACTACACCATTGGCAAGGAGATCATTGACCTTGTGTTGGACCGAATTTCGC  
AAGCTGGCTGACCAGTGCACCGGTCTTCAGGGCTTCTTGGTTTTCCACAGCTTTGGTGGGGGAAGTGGTTCTGGG  
TTCACCTCCCTGCTCATGGAACGTCTCTCAGTTGATTATGGCAAGAAGTCCAAGCTGGAGTTCTCCATTTACCCA  
GCACCCCAAGGTTTCCACAGCTGTAGTTGAGCCCTACAACTCCATCCTCACCACCCACACCACCTGGAGCACTCT  
GATTGTGCCTTCATGGTAGACAATGAGGCCATCTATGACATCTGTCGTAGAAACCTCGATATCGAGCGCCCAACC  
TACACTAACCTTAACCGCCTTATTAGCCAGATTGTGTCTCTCCATCACTGCTTCCCTGAGATTTGATGGAGCCCTG  
AATGTTGACCTGACAGAATTCCAGACCAACCTGGTGCCCTACCCCCGCATCCACTTCCCTCTGGCCACATATGCC  
CCTGTCTCTCTGCTGAGAAAGCCTACCATGAACAGCTTTCTGTAGCAGAGATCACCAATGCTTGCTTTGAGCCA  
GCCAACCAGATGGTGAAATGTGACCCTCGCCATGGTAAATACATGGCTTGCTGCCTGTTGTACCGTGGTGACGTG  
GTTCCCAAAGATGTCAATGCTGCCATTGCCACCATCAAAACCAAGCGCAGCATCCAGTTTGTGGATTGGTGCCCC  
ACTGGCTTCAAGGTTGGCATCAACTACCAGCCTCCCACTGTGGTGCTGGTGGAGACCTGGCCAAGGTACAGAGA  
GCTGTGTGCATGCTGAGCAACACCACAGCCATTGCTGAGGCCTGGGGCTCGCCTGGACCACAAGTTTGACCTGATG  
TATGCCAAGCGTGCCCTTTGTTCACTGGTACGTGGGTGAGGGGATGGAGGAAGGCGAGTTTTAGAGGCCCGTGAA  
GATATGGCTGCCCTTGAGAAGGATTATGAGGAGGTTGGTGTGGATTCTGTTGAAGGAGAGGGTGAGGAAGAAGGA  
GAGGAATACTTAATTATCCATTCTTTTGGCCCTGCAGCATGTCATGCTCCAGAATTTAGCTTCAGCTTAAGT  
ACAGACGTTAAAGCTTTCTGGTTAGATTGTTTTCACTTGGTGATCATGTCTTTTCCATGTGTACCTGTAATATTT  
TTCCATCATATCTCAAAGTAAAGTCATTAACATCAAAAAAAAAAAAAAAAAA

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**FIGURE 878**

MRECISIHVGQAGVQIGNACWELYCLEHGIQPDGQMPSDKTIGGGDDSFNTFFSETGAGKHVPRAVFVDLEPTVI  
DEVRTGTYRQLFHPEQLITGKEDAANNYARGHYTIGKEIIDLVLDRIKRLADQCTGLQGFLVFHSFGGGTGSGFT  
SLLMERLSVDYGKKSLEFSIYPAPQVSTAVVEPYNSILTHTTLEHSDCAFMVDNEAIYDICRRNLDIERPTYT  
NLNRLISQIVSSITASLRFDGALNVDLTEFQTNLVPYPRIHFPLATYAPVISAEKAYHEQLSVAEITNACFEPAN  
QMVKCDPRHGKYMACECLLYRGDVVPKDVNAAIATIKTKRSIQFVDWCPTGFKVGINYQPPTVVPGGDLAKVQRAV  
CMLSNTTAIAEAWARLDHKFDLMYAKRAFVHWYVGEGMEEGEFSEAREDMAALEKDYEYEVGVDSVEGEHEEEEEE  
Y



**FIGURE 879**

GGCACGAGGCAGTAGCTCCCGTTGCGGCGGCACCCGTGGCAGCCCTGGCGGACGCAGGAGCG**ATG**GCAGCGACCG  
ATATAGCTCGCCAGGTGGGTGAAGGTTGCCGAACGTGTCCCCTGGCTGGACATGTGGGGTTTGACAGCTTGCCTG  
ACCAGCTGGTGAATAAGTCCGTCAGCCAGGGCTTCTGCTTCAACATCCTGTGCGTGGGAGAGACAGGTTTGGGCA  
AGTCCACCCTCATGGACACCCTGTTCAACACCAAATTCGAAGGGGAGCCAGCCACCCACACACAGCCGGGTGTCC  
AGCTCCAGTCTAATACCTATGACCTCCAAGAGAGCAACGTGAGGCTAAAGCTCACGATCGTTAGCACAGTTGGCT  
TTGGGGACCAGATCAACAAAGAGGACAGCTACAAGCCTATCGTGGAATTCATCGATGCACAATTCGAGGCCTACC  
TGCAGGAAGAGCTAAAGATCCGAAGAGTGCTACACACCTACCATGACTCCCGAATCCATGTCTGCTTGTATTTCA  
TTGCCCCCACGGGTCATTCCCTGAAGTCTCTGGACCTAGTGACTATGAAGAAGCTGGACAGTAAGGTGAACATCA  
TCCCCATCATTGCCAAAGCAGATGCCATTTTCAAGAGTGAGCTAACAAAGTTCAAATCAAATCACCAGCGAGC  
TTGTCAGCAACGGAGTCCAGATCTATCAGTTTCTACAGATGATGAGTCGGTGGCAGAGATCAATGGAACCATGA  
ACGCCCACCTGCCGTTTGCTGTCTATTGGCAGCACAGAAGAACTGAAGATAGGCAACAAGATGATGAGGGCGCGGC  
AGTATCCTTGGGGCACTGTGCAGGTTGAAAACGAGGCCCCACTGCGACTTTGTGAAGCTGCGGGAGATGCTGATTC  
GGGTCAACATGGAGGATCTGCGGGAGCAGACCCACACCCGGCACTATGAGCTGTATCGCCGCTGTAAGCTGGAGG  
AGATGGGCTTCAAGGACACCGACCCTGACAGCAAACCCCTTCAAGTTTACAGGAGACATATGAGGCCAAAAGGAACG  
AGTTCCTAGGGGAACTCCAGAAAAAGAAGAGGAGATGAGACAGATGTTCTGCCAGCGAGTCAAAGAGAAAGAAG  
CGGAGCTCAAAGAGGCAGAGAAAGAGCTGCACGAGAAGTTTGACCGTCTGAAGAACTGCACCAGGACGAGAAGA  
AGAACTGGAGGATAAGAAGAAATCCCTGGATGATGAAGTGAATGCTTTCAAGCAAAGAAAGACGGCGGCTGAGC  
TGCTCCAGTCCCAGGGCTCCCAGGCTGGAGGCTCACAGACTCTGAAGAGAGACAAAGAGAAGAAAACTTTTTTT**T**  
**AA**TCTTGTCTTCAAGCAGCTGCACTAAGTCTAAAGGAGAAGACTGCCATTATAGAAGAGTTAGGGTTCCATATTGT  
CTCAAATCAGAAATCAACCAATTTCTCTCCCCTCAAAGTCAAGCACACACACATACACCACACCACTCAACAA  
GTGTTTATGTGTCCCTGTGTCCAGGCAAGAAGCTCTCTTCTGACTCACATGGTATTTTAAATGGAAGTGTCTTG  
TCCTAACTAAACAAGGCAGGAAAAGAACCATCAGAGCTGGAAAATGGACGAAATGTAACCTCAGAGAAACAACCTAC  
AGGACCACTCACCCAAGTGTAAAGTACTGGGGCAGGACACCTCAGCTGTGGGTATGAAAGTACTGTTCTGTTCAC  
AAGGTTTTGTTTGAGTTTTATGTTTTTCTTTTAAACATTTCTCTGGTTTCGATGGGTTGACTGTCTACAGCCACTG  
TTAAACATTTCTGAATATGCAAGAGAAAGTCAAGTGACATTTGTATCTTCTTCAGCATTTCGACACCTTCTATAG  
ATTCCAGCAAAGGGGGAAAATGTATCCACTATCTAACACTTAGGTAGAGAAGGGAGGGGGTTTAAGCTTAGTGAG  
GGCAAATTAATCTCCATTCCACCTCCGAGACCAGTTAGGGTTTTGAGAGAGGTTTCTGCTCAACCTGGGATCTGG  
AGGGAGAGCTTTGATGTTGGTAAATCTGCCTTGAATTCATTGGTTTAACTTGCATCAAAATACCATGTGAGTGTG  
CTCATTCTCATATATCCCCTACCACCATCACCACATTCTGCTGTTTCAAGTGTCTCTTGAGAGAGCCTCTTTGCAT  
GTTTTCCAGAAATCTGTGTGTTTTTCTTTCTCTCTTTGTTCTTTTGGCTCAAAGGTGTGACCAGTCATTGC  
CCCTCTGGGGCTTTTATTCTCCAGGAGAAACATCCAGAACCAGCACTGTTTAGCCTGATACCTTTCTAATGTCC  
ATGTCAATTTTCAATAAAATTCAAAGAAATGCTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 880**

MAATDIARQVGEGCRTVPLAGHVGFDSPDQLVNKSVSQGFCFNILCVGETGLGKSTLMDTLFNTKFEGEPATHT  
QPGVQLQSNTYDLQESNVRLKLTIVSTVGFGDQINKEDSYKPIVEFIDAQFEAYLQEELKIRRVLHTYHDSRIHV  
CLYFIAPTGHSLKSLDLVTMKKLDSKVNIIPIIAKADAISKSELTKFKIKITSELVSNGVQIYQFPTDDESVAEI  
NGTMNAHLPPFAVIGSTEELKIGNKMMRARQYPWGTQVQVENEAHCDFVKLREMLIRVNMEDLREQTHTRHYELRR  
CKLEEMGFKDTPDSKPFSLQETYEAKRNEFLGELQKKEEMRQMFVQRVKEKEAELKEAEKELHEKFDRLKKLH  
QDEKKKLEDKKKSLDDEVNAFKQRKTAELLQSQSQAGGSQTLKRDKEKKNFF

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**FIGURE 881**

ATCAGCGAGGGATTACAGGCGAAATGAGACTGTTTCGTGAGTGATGGCGTCCCGGGTTGCTTGCCGGTGCTGGCCG  
CCGCCGGGAGAGCCCGGGGAGAGGAGGTCATCAGCACTGTAGGCCCGGAAGATTGTGTGGTCCCGTTCC  
TGACCCGGCCTAAGGTCCCTGTCTTGACGCTGGATAGCGCAACTACCTCTTCTCCACTAGTGCAATCTGCCGAT  
ATTTTTTTTTGTTATCTGGCTGGGAGCAAGATGACCTACTAACCAGTGGCTGGAATGGGAAGCGACAGAGCTGC  
AGCCAGCTTTGTCTGCTGCCCTGTACTATTTAGTGGTCCAAGGCAAGAAGGGGGAAGATGTTCTTGTTTCAGTGC  
GGAGAGCCCTGACTCACATTGACCACAGCTTGAGTCGTCAGAACTGTCTTTCTGGCTGGGGAGACAGAATCTC  
TAGCCGACATTGTTTTGTGGGGAGCCCTATACCCATTACTGCAAGATCCCGCTACCTCCCTGAGGAGCTGAGTG  
CCCTGCACAGCTGGTTCAGACACTGAGTACCCAGGAACCATGTGACGAGCTGCAGAGACTGTACTGAAACAGC  
AAGGTGTCCTGGCTCTCCGGCCTTACCTCCAAAAGCAGCCCCAGCCCAGCCCCGCTGAGGGAAGGGCTGTACCA  
ATGAGCCTGAGGAGGAGGAGCTGGCTACCCTATCTGAGGAGGAGATTGCTATGGCTGTTACTGCTTGGGAGAAGG  
GCCTAGAAAGTTTGCCCCGCTGCGGCCCCAGCAGAATCCAGTGTTGCTGTTGGCTGGAGAAAGGAATGTGCTCA  
TCACCAGTGCCCTCCCTTACGTCAACAATGTCCCCACCTTGGAACATCATTGGTTGTGTGCTCAGTGCCGATG  
TCTTTGCCAGGTACTCTCGCTCCGCCAGTGAACACCCTCTATCTGTGTGGGACAGATGAGTATGGTACAGCAA  
CAGAGACCAAGGCTCTGGAGGAGGACTAACCCCCAGGAGATCTGCGACAAGTACCACATCATCCATGCTGACA  
TCTACCGCTGGTTTAACATTTGTTTTGATATTTTTGGTTCGACACCACCTCCACAGCAGACCAAAATCACCCAGG  
ACATTTTCCAGCAGTTGCTGAAACGAGGTTTTGTGCTGCAAGATACTGTGGAGCAACTGCGATGTGAGCACTGTG  
CTCGCTTCTGGCTGACCGCTTCGTGGAGGGCGTGTGTCCTTCTGTGGCTATGAGGAGGCTCGGGGTGACCAGT  
GTGACAAGTGTGGCAAGCTCATCAATGCTGTGAGCTTAAGAAGCCTCAGTGTAAGTCTGCCGATCATGCCCTG  
TGGTGCAGTCGAGCCAGCACCTGTTTCTGGACCTGCCTAAGCTGGAGAAGCGACTGGAGGAGTGGTTGGGGAGGA  
CATTGCCTGGCAGTGACTGGACACCCAATGCCAGTTTATCACCCGTTCTTGGCTTCGGGATGGCCTCAAGCCAC  
GCTGCATAACCCGAGACCTCAAATGGGGAACCCCTGTACCCTTAGAAGGTTTTGAAGACAAGGTATTCTATGTCT  
GGTTTGATGCCACTATTGGCTATCTGTCCATCACAGCCAACTACACAGACCAGTGGGAGAGATGGTGAAGAACC  
CAGAGCAAGTGGACCTGTATCAGTTCATGGCCAAAGACAATGTTCTTCCATAGCTTAGTCTTTCTTGCTCAG  
CCCTAGGAGCTGAGGATAACTATACCTTGGTCAGCCACCTCATTGCTACAGAGTACCTGAACTATGAGGATGGGA  
AATTCTCTAAGAGCCGCGGTGTGGGAGTGTGTTGGGGACATGGCCCAGGACACGGGGATCCCTGCTGACATCTGGC  
GCTTCTATCTGCTGTACATTCGGCCTGAGGGCCAGGACAGTGCTTTCTCCTGGACGGACCTGCTGCTGAAGAATA  
ATTCTGAGCTGCTTAACAACCTGGGCAACTTCATCAACAGAGCTGGGATGTTTGTGTCTAAGTTCTTTGGGGCT  
ATGTGCCTGAGATGGTGCTACCCCTGATGATCAGCGCTGCTGGCCATGTACCCCTGGAGCTCCAGCACTATC  
ACCAGCTACTTGAGAAGGTTTCGGATCCGGGATGCCTTGCGCAGTATCCTCACCATATCTCGACATGGCAACCAAT  
ATATTCAGGTGAATGAGCCCTGGAAGCGGATTAAAGGCAGTGAGGCTGACAGGCAACGGGCAGGAACAGTGACTG  
GCTTGGCAGTGAAATATAGCTGCCTTGCTCTCTGTATGCTTCAGCCTTACATGCCACGGTTAGTGCCACAATCC  
AGGCCCAGCTGCAGCTCCACCTCCAGCCTGCAGTATCCTGCTGACAACTTCCTGTGTACCTTACCAGCAGGAC  
ACCAGATTGGCACAGTCAGTCCCTTGTTCCAAAATTGGAATGACCAGATTGAAAGTTTAAAGGCAGCGCTTTG  
GAGGGGGCCAGGCAAAACGTCCCCGAAGCCAGCAGTTGTAGAGACTGTTACAACAGCCAAGCCACAGCAGATAC  
AAGCGCTGATGGATGAAGTGACAAAACAAGGAAACATTGTCCGAGAACTGAAAGCACAAAAGGCAGACAAGAAGC  
AGGTTGCTGCGGAGGTGGCGAACTCTTGATCTAAAGAAACAGTTGGCTGTAGCTGAGGGGAAACCCCTGAAG  
CCCCTAAAGGCAAGAAGAAAAAGTAAAGACCTTGGCTCATAGAAAGTCACTTTAATAGATAGGGACAGTAATAA  
ATAAATGTACAATCTCTATA

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**FIGURE 882**

MRLFVSDGVPGLPVLAAAGRARGRAEVLISTVGPEDCVVPFLTRPKVPVLQLDSGNYLFSTSAICRYFFLLSGW  
EQDDL TNQWLEWEATELQPALSAALYYLVVQGKGEDVLGSVRRAL THIDHSLSRQNC PFLAGETESLADIVLWG  
ALYPLLQDPAYLPEELSALHSWFQTLSTQEPCQRAAETVLKQQGV LALRPYLQKQPQPSPAEGRAVTNEPEEEEL  
ATLSEEEIAMAVTAWEKGLESLPPLRPQQNPVLPVAGERNVLITSALPYVNNVPHLGN IIGCVLSADV FARYSRL  
RQWNTLYLCGTDEYGTATETKALEEGLTPQEICDKYHIIHAD IYRWFNISFDIFGR TTPQQTKITQDIFQQLLK  
RGFVLQDTVEQLRCEHCARFLADRFVEGVC PFCGYEEARGDQCDKCGKLINAVELKKPQCKVCRSCP VVQSSQHL  
FLDLPKLEKRLEEWLGRTLPGSDWTPNAQFITRSWLRDGLKPRCITRDLKWGTPVPLEGFEDKV FYVWFDATIGY  
LSITANYTDQERWWKNPEQVDLYQFMAKDNVPFHSLVFPC SALGAEDNYTLVSHLIATEY LNYEDGKFSKSRGV  
GVFGDMAQDTGIPADIWRFYLLYIRPEGQDSAFSWTDLLLKNNSELLNNLGNFINRAGMFVSKFFGGYVPEMVL T  
PDDQRLLAHV TLELQHYHQLLEKVRIRDALRSILTISR HGNQYIQVNEPWKRIKGSEADRQRAGTVTGLAVNIAA  
LLSVMLQPYMPTVSATIQAQLQLPPAC SILLTNFLCTL PAGHQIGTVSPLFQKLENDQIESLRQRFGGGQAKTS  
PKPAVVETVTTAKPQQIQALMDEVTKQGNIVRELKAQKADKNEVAAEVAKLLDLKKQLAVAEGKPPEAPKGKKKK

**FIGURE 883**

GGCACGAGGCTGCTGTTTGTCTACTTCCTCCTGCTTCCCCGCCGCCGCCGCCGCCATC**ATG**AGGGAAATCGTGCA  
CTTGCAAGGCCGGCAGTGC GGCAACCAATCGGCGCCAAGTTTTGGGAGGTGATCAGCGATGAGCACGGCATCGA  
CCCCACGGGCACCTACCACGGGGACAGCGACCTGCAGCTGGAACGCATCAACGTGTACTACAATGAGGCCACCGG  
CGGCAAGTACGTGCCCCGCGCCGTGCTCGTGGATCTGGAGCCCCGCCACCATGGACTCCGTGCGCTCGGGGGCCCTT  
CGGGCAGATCTTCCGGCCGGACAACCTTCGTTTTTCGGTCAGAGTGGTGCTGGGAACAACCTGGGCCAAGGGGCACTA  
CACAGAAGGCGCGGAGCTGGTGGACTCGGTGCTGGATGTTGTGAGAAAGGAGGCTGAGAGCTGTGACTGCCTGCA  
GGGTTTTCCAGCTGACCCACTCCCTGGGTGGGGGGACTGGGTCTGGGATGGGTACCCTCCTCATCAGCAAGATCCG  
GGAGGAGTACCCAGACAGGATCATGAACACGTTTAGTGTGGTGCCTTCGCCCCAAAGTGTGAGACACAGTGGTGGA  
GCCCTACAACGCCACCCCTCTCAGTCCACCAGCTCGTAGAAAACACAGACGAGACCTACTGCATTGATAACGAAGC  
TCTCTACGACATTTGCTTCAGAACCCTAAAGCTGACCACGCCCCACCTATGGTGACCTGAACCACCTGGTGTCTGC  
TACCATGAGTGGGGTCACCACCTGCCTGCGCTTCCCAGGCCAGCTCAATGCTGACCTGCGGAAGCTGGCTGTGAA  
CATGGTCCCGTTTTCCCCGGCTGCACTTCTTCATGCCCGGCTTTGCCCCACTGACCAGCCGGGGCAGCCAGCAGTA  
CCGGGCGCTGACCGTGCCGAGCTCACCCAGCAGATGTTTGATGCCAAGAACATGATGGGTGCCTGCGACCCCCG  
CCATGGCCGCTACCTGACGTTGCCGCCGTGTTTCAAGGGGCCGCATGTCCATGAAGGAGGTGGATGAGCAAATGCT  
TAATGTCCAAAACAAAAACAGCAGCTATTTTGTGAGTGGATCCCCAACAATGTGAAAACGGCTGTCTGTGACAT  
CCCACCTCGGGGGCTAAAAATGTCCGCCACCTTCATTGGCAACAGCACGGCCATCCAGGAGCTGTTCAAGCGCAT  
CTCCGAGCAGTTCACGGCCATGTTCCGGCGCAAGGCCTTCCTGCACTGGTACACGGGCGAGGGCATGGACGAGAT  
GGAGTTCACCGAGGCCGAGAGCAACATGAATGACCTGGTGTCCGAGTACCAGCAGTACCAGGATGCCACAGCCGA  
GGAGGAGGGCGAGTTCGAGGAGGAGGCTGAGGAGGAGGTGGCC**TAGA**GCCTTCAGTCACTGGGGAAAGCAGGGAA  
GCAGTGTGAACTCTTTATTCACTCCAGCCTGTCTGTGGCCTGTCCCACTGTGTGCACTTGCTGTTTTCCCTGT  
CCACATCCATGCTGTACAGACACCACCATTAAGCATTTTCATAGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AA

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**FIGURE 884**

MREIVHLQAGQCGNQIGAKFWEVISDEHGIDPTGTYHGDSDLQLERINVYYNEATGGKYVPRAVLVDLEPGTMDS  
VRSGPFGQIFRPDNFVFGQSGAGNNWAKGHYTEGAELVDSVLDVVRKEAESCDCLOGFQLTHSLGGGTGSGMGTL  
LISKIREEYPDRIMNTFSVVPSPKVSDTVVEPYNATLSVHQLVENTDETYCIDNEALYDICFRTLKLTPTYGDL  
NHLVSATMSGVTTCLRFPGQLNADLRKLAVNMVFFPRLHFFMPGFAPLTSRGSQQYRALTVPELTQQMFDAKNMM  
AACDPRHGRYLTVAAVFRGRMSMKEVDEQMLNVQKNSSYFVEWIPNNVKTAVCDIPRGLKMSATFIGNSTAIQ  
ELFKRISEQFTAMFRRKAFLHWYTGEQMDMEFTEAESNMNDLVSEYQQYQDATAEEEGEFEEEEEEVA

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**FIGURE 885**

CAGGAGAAGCTGACCAGCCGCAAGATGGACAGCCGCTGGGGCGGGCGCAGCGAGTCCATCAATGTGACCCTCAAC  
GTGGAGCAGGCAGCCTACACCCGTGATGCCCTGGCCAAGGGCTCTATGCCCGCCTCTTCGACTTCCTCGTGGAG  
GCCATCAACCGTGCTATGCAGAAACCCAGGAAGAGTACAGCATCGGTGTGCTGGACATTTACGGCTTCGAGATC  
TTCCAGAAAAATGGCTTCGAGCAGTTTTGCATCAACTTCGTCAATGAGAAGCTGCAGCAAATCTTTATCGAACTT  
ACCCTGAAGGCCGAGCAGGAGGAGTATGTGCAGGAAGGCATCCGCTGGACTCCAATCCAGTACTTCAACAACAAG  
GTCGTCTGTGACCTCATCGAAAACAAGCTGAGCCCCCAGGCATCATGAGCGTCTTGGACGACGTGTGCGCCACC  
ATGCACGCCACGGGCGGGGAGCAGACCAGACACTGCTGCAGAAGCTGCAGGCGGCTGTGGGGACCCACGAGCAT  
TTCAACAGCTGGAGCGCCGGCTTCGTATCCACCACTACGCTGGCAAGGTCTCCTACGACGTACGCGGCTTCTGC  
GAGAGGAACCGAGACGTTCTCTTCTCCGACCTCATAGAGCTGATGCAGTCCAGTGACCAGGCCTTCCTCCGGATG  
CTCTTCCCCGAGAAGCTGGATGGAGACAAGAAGGGGCGCCCCAGCACCGCCGGCTCCAAGATCAAGAAACAAGCC  
AACGACCTGGTGGCCACACTGATGAGGTGCACACCCCACTACATCCGCTGCATCAAACCAACGAGACCAAGCAC  
GCCCCGAGACTGGGAGGAGAACAGAGTCCAGCACCAAGGTGGAATACCTGGGCCTGAAGGAAAACATCAGGGTGC GC  
AGAGCCGGCTTCGCCTACCGCCGCCAGTTCGCCAAATTCTGTCAGAGGTATGCCATTCTGACCCCCGAGACGTGG  
CCGCGGTGGCGTGGGGACGAACGCCAGGGCGTCCAGCACCTGCTTCGGGCGGTCAACATGGAGCCCCGACAGTAC  
CAGATGGGGAGCACCAAGGTCTTTGTCAAGAACCCAGAGTCGCTTTTCTCCTGGAGGAGGTGCGAGAGCGAAAG  
TTCGATGGCTTTGCCC GAACCATCCAGAAGGCCTGGCGGCGCCACGTGGCTGTCCGGAAGTACGAGGAGATGCGG  
GAGGAAGCTTCCAACATCCTGCTGAACAAGAAGGAGCGGAGGCGCAACAGCATCAATCGGAACCTTCGTGCGGGAC  
TACCTGGGGCTGGAGGAGCGGCCGAGCTGCGTCAGTTCTTGGCAAGAAGGAGCGGGTGGACTTCGCCGATTTCG  
GTCACCAAGTACGACCGCCGCTTCAAGCCCATCAAGCGGGACTTGATCCTGACGCCCAAGTGTGTGTATGTGATT  
GGGCGAGAGAAGATGAAGAAGGGACCTGAGAAAGGTCCAGTGTGTGAAATCTTGAAGAAGAAATTGGACATCCAG  
GCTCTGCGGGGGTCTCCCTCAGCACGCGACAGGACGA<sup>1</sup>TTCTTCATCCTCCAAGAGGATGCCGCCGACAGCTTC  
CTGGAGAGCGTCTTCAAGACCGAGTTTGTGAGCCTTCTGTGCAAGCGCTTCGAGGAGGCGACGCGGAGGCCCTG  
CCCCCTACCTTCAGCGACACACTACAGTTTCGGGTGAAGAAGGAGGGCTGGGGCGGTGGCGGCACCCGCAGCGTC  
ACCTTCTCCCGCGGCTTCGGCGACTTGGCAGTGCTCAAGGTGGCGGTTCGGACCTCAGGTCAGCGTGGGCGAT  
GGGCTGCCCAAGAACTCCAAGCCTACCGGAAAGGGATTGGCCAAGGGTAAACCTCGGAGGTGCTCCAAGCCCCCT  
ACCCGGGCGGCCCCCTGGCGCCCCCAAGGCATGGATCGAAATGGGGCCCCCTCTGCCACAGGGGGGGGCCCCC  
TGCCCCCTGGAGAAATTCATTTGGCCCAGGGGGCACCCACAGGCCTCCCCGGCCCTCCGTCCACATCCCTGGGAT  
GCCAGCAGACGACCCCGGGCACGTCCGCCCTCAGAGCACAACACAGAATTCCTCAACGTGCCTGACCAGGGGATG  
GCCGGCATGCAGAGGAAGCGCAGCGTGGGGCAACGGCCAGTGCTGTGGGCCGACCCAAGCCCCAGCCTCGGACA  
CATGGTCCCAAGTGCCGGGCCCTATAACAGTACGTGGGCCAAGATGTGGACGAGCTGAGCTTCAACGTGAACGAG  
GTCATTGAGATCCTCATGGAAGATCCCTCGGGCTGGTGGAAAGGGCCGGCTTACGGCCAGGAGGGCCTTTTCCCA  
GGAAACTACGTGGAGAAGATCTGAGCTGGGCCCTGGGATACTGCCTTCTCTTTCGCCCCGCTATCTGCCTGCCGG  
CCTGGTGGGGAGCCAGGCCCTGCCAATGAAAGCCTCGTTTACCTGGGCTGCAATAGCCTAAAAGTCCAATCCTTT  
GGCCTCCAGTCCTTGCCAGGCCCTGGGTACCAAGGTCACTGGTGCAGCCCCCGCCCTGGGGCCTGGTTTTCCT  
CCAACATCACACCTGCTGCCATTGTCCAAAACCTGTGTGTGTCAAAGGGGACTAACAGCAGAATTTACCTCCCAA  
CTGCCATGTGATTAAGAAATGGGTCTTGAGTCCTGTGCTGTTGGCAAAGTTCAGGCACAGTTGGGGAGGGGGG  
CCGGAATCCGC

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**FIGURE 886**

CGGAGCCAGCGTGAGGCGCTGCCGTCGCGCGCCTTGGTTTTTCTGTTCCCTTTTTTTTTTTTTTTTTTAACTT  
CCTGCCTATCACACGCAGCCATCAGCCCACAAAGACATGACTACCAACGCGGGCCCCCTTGACCCATACTGGCCT  
CAGCACCTAAGACTGGACAACCTTTGTACCTAATGACCGCCCCACCTGGCATATACTGGCTGGCCTCTTCTCTGTC  
ACAGGGGTCTTAGTCGTGACCACATGGCTGTTGTCAGGTCGTGCTGCGGTTGTCCCATTTGGGGACTTGGCGGCGA  
CTGTCCCTGTGCTGGTTTGAGTGTGTGGGTTTATTACCTGGTGATCGAGGGCTGGTTCGTTCTCTACTACGAA  
GACCTGCTTGGAGACCAAGCCTTCTTATCTCAACTCTGGAAAGAGTATGCCAAGGGAGACAGCCGATACATCCTG  
GGTGACAACTTCACAGTGTGCATGGAAACCATCACAGCTTGCCCTGTGGGGACCACTCAGCCTGTGGGTGGTGATC  
GCCTTTCTCCGCCAGCATCCCCCTCCGCTTCATTCTACAGCTTGTGGTCTCTGTGGGCCAGATCTATGGGGATGTG  
CTCTACTTCCTGACAGAGCACCGCGACGGATTCCAGCACGGAGAGCTGGGCCACCCTCTCTACTTCTGGTTTTAC  
TTTGTCTTCATGAATGCCCTGTGGCTGGTGTGCCTGGAGTCCTTGTGCTTGATGCTGTGAAGCACCTCACTCAT  
GCCCAGAGCACGCTGGATGCCAAGGCCACAAAAGCCAAGAGCAAGAAGAACTTGAGGAGTGGTGGACCAGGCTCGA  
ACACTGGCCGAGGAGGAGCTCTCTGCCTGCCAGAAGAGTCTAGTCCTGCTCCACAGTTTGGAGGGACAAAGCTA  
ATTGATCTGTACACTCAGGCTCATGGGCAGGCACAAGAAGGGGAATAAAGGGGGCTGTGTGAAGGCACTGCTGGG  
AGCCATTAGAACACAGATACAAGAGAAGCCAGGAGGTCTATGATGGTGACGATTTTTTAAAATCAGGAAATAAAAG  
ATCTTGACTCTAAAAAAAAAAAAA



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**FIGURE 887**

MTTNAGPLHPYWPQHRLRDNFVPNDRPTWHILAGLFSVTGVLVTTWLLSGRAAVVPLGTWRRLSLCWFAVCGFI  
HLVIEGWVFLYYEDLLGDQAFLSQLWKEYAKGDSRYILGDNFTVCMETITACLWGPLSLWVVI AFLRQHPLRFIL  
QLVVS VGQIYGDVLYFLTEHRDGFQHGELGHPLYFWFYFVFMNALWLVLPGVLVLDAVKHLTHAQSTLDAKATKA  
KSKKN

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**FIGURE 888**

GAATTTCGGCACGAGG**ATG**ACGGAGCCGGGCGCCTCTCCCGAGGACCCCTTGGGTCAAGGTGGAGTATGCCTACAGC  
GACAACAGCCTGGACCCCCGGGCTTTTTGTAGAAAGCACCCGCAAGGGGAGTGTAGTGTCCAGAGCTAATAGCATC  
GGTTCCACCAGTGCCTCTTCTGTCCCCAACACAGATGATGAGGACAGTGATTACCACCAGGAGGCCTACAAGGAG  
TCCTACAAAGACCGGCGGCGGCGCACACACTCAGGCTGAGCAGAAGAGGAGGGACGCCATCAAGAGAGGCTAT  
GATGACCTTCAGACCATCGTCCCCACTTGCCAGCAGCAGGACTTCTCCATTGGCTCCCCAAAAGCTCAGCAAAGCC  
ATCGTTCTACAAAAGACCATTGACTACATTCACTTTTTGCACAAGGAGAAGAAAAAGCAGGAGGAGGAGGTGTCC  
ACGTTACGCAAGGATGTCACCGCCCTAAAGATCATGAAAGTGAAGTATGAGCAGATTGTGAAGGCACACCAGGAC  
AACCCCATGAAGGGGAGGACCAGGTCTCTGACCAGGTCAAGTTCAACGTGTTCAAGGCATCATGGTTTCCCTG  
TTCCAGTCCTTCAATGCCTCCATCTCAGTGGCCAGCTTCCAGGAGCTGTCAGCGTGTGTCTTCAGCTGGATCGAG  
GAGCACTGTAAGCCTCAGACCCCTGCGGGAGATTGTGATTGGCGTCTGCACCAATTGAAAAACCAGCTTTACT**TGA**

CCGGTTCTTGGAACCTGGAGAACAGCCAACAAGAGGCCCTTGAATCTCTACGTGGCCACTGAACTGCTGGGCCC  
GGGAGACTGGTCTACAACACCACACACTGGACAGCTGGTCTCTACTTGGTGTGTGGTTTCTCCCAGCCCCATTTT  
CTCTACAGCGGAGCCGCGGTGTGTGTGTGTGAAAGCTTCTGATTAATTTATTATATTGACGATAAACTCAAAC  
CTACCCAGCCTTCCCCCACTCCATGGAAGTCCTTGGGATGGGCGTCTGCTCTGGACACCCCAAAGAGCTCCTGC  
CCTCTCAGCCCTTTATTCAAGCCTCAGATTTCTGCTCATGATCTACATAGATTTGGAACCTGTTTTCTCTGTTG  
TGGTCTCTTGGGCAACATTTGTGGCCCAAGTTTGGGCAACATTTGGCCCAAGTTTGGGCATTGTGGGAGTAGCTG  
TATGGGAGAAAAAGAGTAAGAGGAAATATTCCACAGCCATGAAGGGTGAAAGGGCACCTTGTGCCTAGACTAGG  
GCTGGCTGGTCAGTCCCAGGTGAGGACAAGGGCTTCTGGCCATCTCAGGAGGGGGCACCAGGTTCTCTCCCTC  
ACCCCATATTCCATCACCTTCTCTCTGCTCTGGGTGGTAAGGGAAGCCCTCCCGTTCCACAGGCTATGATG  
CTGCATGGCAGAGGCAGGTATAACACAGCACTACATATTGGAATTTTTTATTTTTCTAAATACCAATGCAGTTT  
TGCTACGGTTACAATTTTGAATATTAAGTGAAGCTCAAAATCACCTTTCTGTCAAGCATATCTTGGCCTCTCC  
CATGTCTCAGTGTGCTGCATTTCTCCCAGGACTTGGGGGTGGGGTGAAAAGCGTACAAAAGATACTTAAAAGG  
GCTCCTGGGGTACACAAGCCCAGCAGGTCTGAGTGAAGCCGTGGGCCCTCCAAATGCTCGTTTTATAGCAACCT  
CTCTCTACCTAGTTCTCCAAATTCATTTCTGCCTTCTCAGGTTTGATATCTGGCAGGTTTGACTATCCAGAGG  
AAATTAAATATTTTTATATAAAATTAAATTATAATAAATATTGCCAAATGCTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 889**

MTEPGASPEDPWVKVEYAYSDNSLDPGLFVESTRKGSVVSRRANSIGSTSASSVPNTDDEDSYHQEAYKESYKDR  
RRRAHTQAEQKRRDAIKRGYDDLQTIVPTCQQQDFSIGSQKLSKAIVLQKTIDYIQFLHKEKKKQEEVSTLRKD  
VTALKIMKVNYEQIVKAHQDNPHGEDQVSDQVKFNVFQGIMVSLFQSFNASISVASFQELSACVFSWIEEHCKP  
QTLREIVIGVLHQLKNQLY

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**FIGURE 890**

**ATG**GTGAAAATGACAAAGTCCAAAACCTTTCCAAGCGTATCTGCCGAACTGTCACCGAACGTACAGCTGTATCCAC  
TGCAGAGCACACCTGGCCAATCATGACGAGCTCATCTCCAAGTCCTTTCAGGGGAGCCAGGGACGCGCCTACCTC  
TTCAATTCCGTGGTGAACGTGGGCTGCGGCCCTGCAGAGGAGAGGGTCCTTCTCACCGGGCTGCATGCGGTTGCC  
GACATCTACTGCGAGAACTGCAAGACCACGCTCGGGTGGAATACGAGCATGCCTTTGAGAGCAGTCAGAAATAT  
AAGGAAGGAAAATTCATCATTGAGCTTGCTCATATGATCAAAGACAATGGCTGGGAG**TAA**

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**FIGURE 891**

MVKMTKSKTFQAYLPNCHRTYSCIHCRAHLANHDELISKSFQGSQGRAYLFNSVVNVGCGPAEERVLLTGLHAVA  
DIYCENCKTTLGWKYEHAFESSQKYKEGKFI IELAHMIKDNGWE

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**FIGURE 892**

GCGGCCGCCGTGGCCAGGCAACCTATGGGTACCACCGGGTTCTCGCGGGTCTTGCGAACGAACTTTTCCTTGAAA  
CTCTCTGGATTCCCTGTAAACAGTGGGGCTCAGCCCCTCAATGACTGGAGGCTTCGATGGTTCAAAGGGGACCTCC  
GGAATCACAGGGCCGGGAGTCGCCATGTCCGGGCCACAGCAGCAGGAGAAAAATCGGGACTCCGACCTCAGCCTCC  
CGGTGAAGGTCATGAAAGGGGCGGGGAAACGAATAAATTGAGCCTTGACGCAGGCGCAAATGCTCGTTGCATCC  
TGGGAGTCGTAGTGCTCAGCACGGTAGTGCTACAAAAGGACTACATTTCCCCAAATGCCCGCAAAGCCTTGTCGA  
CGCCTTCCGGAAGGAGTTTGTACACGAGGTCTGAGAGACAGAGGCAGCGTGGTTGAGCTGCTGGTGCGGTGGTC  
AGCGCGATGCCCAAGGCCAAGGGCAAACCCGGAGGCAGAAGTTTGGTTACAGTGTCAACCGAAAGCGTCTGAAC  
CGGAATGCTCGACGGAAGGCAGCGCGCGGAATCGAATGCTCCACATCCGACATGCCTGGGACCACGCTAAATCG  
GTACGGCAGAACCTGGCCGAGATGGGGTTGGCTGTGGACCCCAACAGGGCGGTGCCCCCTCCGTAAGAGAAAGGTG  
AAGGCCATGGAGGTGGACATAGAGGAGAGGCCTAAAGAGCTTGACGGAAGCCCTATGTGCTGAATGACCTGGAG  
GCAGAAGCCAGCCTTCCAGAAAAGAAAGGAAATACTCTGTCTCGGGACCTCATTGACTATGTACGCTACATGGTA  
GAGAACCACGGGGGAGGACTATAAGGCCATGGCCCGTGATGAGAAGAATTACTATCAAGATACCCCAAAACAGATT  
CGGAGTAAGATCAACGTCTATAAACGCTTTTACCCAGCAGAGTGGCAAGACTTCCTCGATTCTTTGCAGAAGAGG  
AAGATGGAGGTGGAGTAACTGGTTTACATCACAGCTGCCCCAGGCTGAGGCGTCCCCCGGACCAGTGAAGCTGGA  
GCCAGGGTGTAAGGCAAGGAGGTGCTGTGTGGCTCCAGAGGGGGCTGGCCAGGTCCCATGGAATCAGAAGGTTACA  
CACACACGTGCACACTCCCCGCTCTGGGGAAGGAACTGTTCTCAGAGGCTCCAATTTATATTTCATCTGGGGGTTT  
ACGGAAGCCAGAACCTGCTGTTTTCAGGGTGGGTGATGTAAATATAGTGTGTACATAATAAGCAAATATATT  
TTAAA

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**FIGURE 893**

MPKAKGKTRRQKFYGVNRKRLNRNARRKAARGIECSHIRHAWDHAKSVRQNLAEMLAVDPNRAVPLRKRKVK  
MEVDIEERPKELVKPYVLNDLEAEASLPEKKGNTLSRDLIDYVRYMVENHGEDYKAMARDEKNYYQDTPKQIRS  
KINVYKRFYPAEWQDFLDSLQKRKMEVE

**FIGURE 894**

GGAATAGGTTAGTTTCAGACAAGCCTGCTTGCCGGAGCTCAGCAGACACCAGGCCTTCCGGGCAGGCCTGGCCCA  
CCGTGGGCCTCAGAGCTGCTGCTGGGGCATTGAGAACCGGCTCTCCATTGGCATTGGGACCAGAGACCCCGCAAG  
TGGCCTGTTTTGCCTGGACATCCACCTGTACGTCCCCAGGTTTCGGGAGGCCAGGGGCGATGCCAGACCCCGCGG  
CGCACCTGCCCTTCTTCTACGGCAGCATCTCGCGTGCCGAGGCCGAGGAGCACCTGAAGCTGGCGGGCATGGCGG  
ACGGGCTCTTCTGCTGCGCCAGTGCCTGCGCTCGCTGGGCGGCTATGTGCTGTCGCTCGTGACGATGTGCGCT  
TCCACCACTTTCCCATCGAGCGCCAGCTCAACGGCACCTACGCCATTGCCGGCGGCAAAGCGCACTGTGGACCGG  
CAGAGCTCTGCGAGTTCTACTCGCGCGACCCCGACGGGCTGCCCTGCAACCTGCGCAAGCCGTGCAACCGGCCGT  
CGGGCCTCGAGCCGAGCCGGGGGTCTTCGACTGCCTGCGAGACGCCATGGTGCGTGACTACGTGCGCCAGACGT  
GGAAGCTGGAGGGCGAGGCCCTGGAGCAGGCCATCATCAGCCAGGCCCCGAGGTGGAGAAGCTCATTGCTACGA  
CGGCCCACGAGCGGATGCCCTGGTACCACAGCAGCCTGACGCGTGAGGAGGCCGAGCGCAAACCTTTACTCTGGGG  
CGCAGACCGACGGCAAAGTTCTGCTGAGGCCGCGGAAGGAGCAGGGCACATACGCCCTGTCCCTCATCTATGGGA  
AGACGGTGTAACCACTACCTCATCAGCCAAGACAAGGCGGGCAAAGTACTGCATTCCCGAGGGCACCAAGTTTGACA  
CGCTCTGGCAGCTGGTGAGTATCTGAAGCTGAAGGCGGACGGGCTCATCTACTGCCTGAAGGAGGCCTGCCCCA  
ACAGCAGTGCCAGCAACGCCCTCAGGGGCTGCTGCTCCACACTCCCAGCCCCACCCATCCACGTTGACTCATCCTC  
AGAGACGAATCGACACCCCTCAACTCAGATGGATACACCCCTGAGCCAGCACGCATAACGTCCCCAGACAAACCGC  
GGCCGATGCCCATGGACACGAGCGTGTATGAGAGCCCCTACAGCGACCCAGAGGAGCTCAAGGACAAGAAGCTCT  
TCCTGAAGCGCGATAACCTCCTCATAGCTGACATTGAACTTGGCTGCGGCAACTTTGGCTCAGTGCGCCAGGGCG  
TGTACCGCATGCGCAAGAAGCAGATCGACGTGGCCATCAAGGTGCTGAAGCAGGGCACGGAGAAGGCAGACACGG  
AAGAGATGATGCGCGAGGCGCAGATCATGCACCAGCTGGACAACCCCTACATCGTGCGGCTCATTGGCGTCTGCC  
AGGCCGAGGCCCTCATGCTGGTCATGGAGATGGCTGGGGGCGGGCCGCTGCACAAGTTCCTGGTCGGCAAGAGGG  
AGGAGATCCCTGTGAGCAATGTGGCCGAGCTGCTGCACCAGGTGTCCATGGGGATGAAGTACCTGGAGGAGAAGA  
ACTTTGTGCACCGTGACCTGGCGGCCGCAACGTCTGCTGGTTAAACCGGCACTACGCCAAGATCAGCGACTTTG  
GCCTCTCCAAAGCACTGGGTGCCGACGACAGCTACTACACTGCCCCTCAGCAGGGAAGTGGCCGCTCAAGTGGT  
ACGCACCCGAATGCATCAACTTCCGCAAGTTCTCCAGCCGAGCGATGTCTGGAGCTATGGGGTACCATGTGGG  
AGGCCTTGTCCTACGGCCAGAAGCCCTACAAGAAGATGAAAGGGCCGGAGGTCATGGCCTTCATCGAGCAGGGCA  
AGCGGATGGAGTGCCCAACAGAGTGTCCACCCGAAGTGTACGCACTCATGAGTGACTGCTGGATCTACAAGTGGG  
AGGATCGCCCCGACTTCTGACCGTGGAGCAGCGCATGCGAGCCTGTTACTACAGCCTGGCCAGCAAGGTGGAAG  
GGCCCCCAGGCAGCACACAGAAGGCTGAGGCTGCCTGTGCTGAGCTCCCGCTGCCCAGGGGAGCCCTCCACGCC  
GGCTCTTCCCCACCCCTCAGCCCCACCCAGGTCTGCACTGCTGGCTGAGCCCTGCTTGTTGTCTCCACACACAG  
CTGGGCTGTGGTAGGGGTGTCTCAGGCCACACCGGCTTGCAATTGCCTGCCTGGCCCCCTGTCTCTCTGGCTG  
GGGAGCAGGGAGGTCCGGGAGGGTGCAGGCTGTGAGCCTGTCTGGGCTGGTGGCTCCCGGAGGGCCCTGAGCTG  
AGGGCATTGCTTACACGGATGCCTTCCCCTGGGCCCTGACATTGGAGCCTGGGCATCCTCAGGTGGTCAGGCGTA  
GATCACCAGAATAAACCCAGCTTCCCTCTTGAAAAAAAAAAAAAAAAAAAAAACC



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**FIGURE 895**

ACACGGACCAAGGAGTCTAACACGTGCGCGAGTCGGGGGCTCGCACGAAAGCCGCCGTGGCGCAATGAAGGTGAA  
GGCCGGCGCGCTCGCCGGCCGAGGTGGGATCCCGAGGCCTCTCCAGTCCGCCGAGGGCGCACCACCGGCCCGTCT  
CGCCCGCCGCGCCGGGAGGTGGAGCACGAGCGCACGTGTTAGGACCCGAAAGATGGTGAAGTATGCCTGGGCAG  
GGCGAAGCCAGAGGAACTCTGGTGGAGGTCCGTAGCGGTCCTGACGTGCAAATCGGTCTCCGACCTGGGTATA  
GGGGCGGGCTCCAGGCGAGGCGGTTCGACGCTCCTGAAAACCTTGC GCGCGCTCGCGCCACTGCGCCCGGAGCGA  
TGAAGATGGTCGCGCCCTGGACGCGGTTCTACTCCAACAGCTGCTGCTTGTGCTGCCATGTCCGCACCGGCACCA  
TCCTGCTCGGCGTCTGGTATCTGATCATCAATGCTGTGGTACTGTTGATTTTATTGAGTGGCCTGGCTGATCCGG  
ATCAGTATAACTTTTCAAGTTCGAACTGGGAGGTGACTTTGAGTTCATGGATGATGCCAACATGTGCATTGCCA  
TTGCGATTTCTCTTCTCATGATCCTGATATGTGCTATGGCTACTTACGGAGCGTACAAGCAACGCGCAGCCTGGA  
TCATCCCATTTCTTCTGTTACCAGATCTTTGACTTTGCCCTGAACATGTTGGTTGCAATCACTGTGCTTATTTATC  
CAAACCTCCATTCAGGAATACATACGGCAACTGCCTCCTAATTTTCCCTACAGAGATGATGTGATGTGCTGATC  
CTACCTGTTTGGTCCTTATTATTCTTCTGTTTATTAGCATTATCTTGACTTTTAAGGGTTACTTGATTAGCTGTG  
TTTGAACTGCTACCGATACATCAATGGTAGGAACCTCTGATGTCCTGGTTTATGTTACCAGCAATGACACTA  
CGGTGCTGCTACCCCGTATGATGATGCCACTGTGAATGGTGTGCCAAGGAGCCACCGCCACCTTACGTGTCTG  
CCTAAGCCTTCAAGTGGGCGGAGCTGAGGGCAGCAGCTTGACTTTGCAGACATCTGAGCAATAGTTCTGTTATTT  
CACTTTTGCCATGAGCCTCTCTGAGCTTGTGTTGCTGAAATGCTACTTTTTAAATTTAGATGTTAGATTGAA  
AACTGTAGTTTCAACATATGCTTTGCTAGAACACTGTGATAGATTAAGTGTAGAAATCTTCTGTACGATTGGG  
GATATAATGGGCTTCACTAACCTTCCCTAGGCATTGAACTTCCCCAAATCTGATGGACCTAGAAGTCTGCTTT  
TGTACCTGCTGGGCCCCAAAGTTGGGCATTTTCTCTCTGTTCCCTCTCTTTTGAATGTAAAATAAAACCAA  
AATAGACAACCTTTTCTTCAGCCATTCCAGCATAGAGAACAAAACCTTATGGAAACAGGAATGTCAATTGTGTAA  
TCATTGTTCTAATTAGGTAAATAGAAGTCCTTATGTATGTGTTACAAGAATTTCCCCCACAACATCCTTTATGAC  
TGAAGTTCAATGACAGTTTGTGTTTGGGTGGTAAAGGATTTTCTCCATGGCCTGAATTAAGACCATTAGAAAGCA  
CCAGGCCGTGGGAGCAGTGACCATCTGCTGACTGTTCTTGTGGATCTTGTGTCCAGGGACATGGGGTGACATGCC  
TCGTATGTGTTAGAGGTGGAATGGATGTGTTTGGCGCTGCATGGGATCTGGTGCCCTCTTCTCTGATTAC  
ATCCCCACCCAGGGCCCGCTTTTACTAAGTGTTCTGCCCTAGATTGGTTCAAGGAGGTATCCAAGTACTTTAT  
CAAGTGGAATTGGGATATATTTGATATACTTCTGCCTAACAAACATGGAAAAGGGTTTTCTTTTCCCTGCAAGCTA  
CATCCTACTGCTTTGAACTTCCAAGTATGTCTAGTCACCTTTTAAATGTAAACATTTTCAAGAAAATGAGGATT  
GCCTTCTTGTATGCGCTTTTACCTTGACTACCTGAATTGCAAGGGATTTTATATATTATATGTTACAAAGT  
CAGCAACTCTCCTGTTGGTTCATTATTGAATGTGCTGTAAATTAAGTTGTTTGCAATTAAACAAGGTTTGCCCA  
CAAAAAAAAAA

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**FIGURE 896**

MVNYAWAGRSQRKLWWRSVAVLTCKSVVRPGYRGGLQARRSTLLKTCARARATAPGAMKMVAPWTRFYNSCCLC  
CHVRTGTILLGVWYLIINAVVLLILLSALADPDQYNFSSSELGGDFEFMDDANMCIAIAISLLMILICAMATYGA  
YKQRAAWIIPFFCYQIFDFALNMLVAITVLIYPNSIQEYIRQLPPNFPYRDDVMSVNPTCLVLIILLFISIILTF  
KGYLISCVWNCYRYINGRNSSDVLVYVTSNDTTVLLPPYDDATVNGAAKEPPPPYVSA

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**FIGURE 897**

GGCACGAGGCCGAGTTGCGATGCTGTACTTCTCTTTGTTTTGGGCGGCTCGGCCTCTGCAGAGATGTGGGCAGCT  
GGTCAGGATGGCCATTCGGGCTCAGCACAGCAACGCAGCCCAGACTCAGACTGGGGAAGCAAACAGGGGCTGGAC  
AGGCCAGGAGAGCCTGTGCGACAGTGATCCTGAGATGTGGGAGTTGCTGCAGAGGGAGAAGGACAGGCAGTGTCG  
TGGCCTGGAGCTCATTGCCTCAGAGAACTTCTGCAGCCGAGCTGCGCTGGAGGCCCTGGGGTCTGTCTGAACAA  
CAAGTACTCGGAGGGTTATCCTGGCAAGAGATACTATGGGGGAGCAGAGGTGGTGGATGAAATTGAGCTGCTGTG  
CCAGCGCCGGGCCTTGGAAGCCTTTGACCTGGATCCTGCACAGTGGGGAGTCAATGTCCAGCCCTACTCCGGGTC  
CCCAGCCAACCTGGCCGCTACACAGCCCTTCTGCAACCTCACGACCGGATCATGGGGCTGGACCTGCCGATGG  
GGGCCATCTCACCCACGGCTACATGTCTGACGTCAAGCGGATATCAGCCACGTCCATCTTCTTCGAGTCTATGCC  
CTATAAGCTCAACCCCAAACTGGCCTCATTGACTACAACCAGCTGGCACTGACTGCTCGACTTTTCCGGCCACG  
GCTCATCATAGCTGGCACCAGCGCCTATGCTCGCCTCATTGACTACGCCCGCATGAGAGAGGTGTGTGATGAAGT  
CAAAGCACACCTGCTGGCAGACATGGCCCACATCAGTGGCCTGGTGGCTGCCAAGGTGATTCCCTCGCCTTTCAA  
GCACGCGGACATCGTCACCACCCTACTCACAAGACTCTTCGAGGGGGCCAGGTGAGGGCTCATCTTCTACCGGAA  
AGGGGTGAAGGCTGTGGACCCCAAGACTGGCCGGGAGATCCCTTACACATTTGAGGACCGAATCAACTTTGCCGT  
GTTCCCATCCCTGCAGGGGGGGCCCCACAATCATGCCATTGCTGCAGTAGCTGTGGCCCTAAAGCAGGCCTGCAC  
CCCCATGTTCCGGGAGTACTCCCTGCAGGTTCTGAAGAATGCTCGGGCCATGGCAGATGCCCTGCTAGAGCGAGG  
CTACTCACTGGTATCAGGTGGTACTGACAACCACCTGGTGTCTGGTGGACCTGCGGCCCAAGGGCCTGGATGGAGC  
TCGGGCTGAGCGGGTGTAGAGCTTGTATCCATCACTGCCAACAAGAACACCTGTCCTGGAGACCGAAGTGCCAT  
CACACCGGGCGGCCCTGCGGCTTGGGGCCCCAGCCTTAACTTCTCGACAGTTCCGTGAGGATGACTTCCGGAGAGT  
TGTGGACTTTATAGATGAAGGGGTCAACATTGGCTTAGAGGTGAAGAGCAAGACTGCCAAGCTCCAGGATTTCAA  
ATCCTTCTGCTTAAGGACTCAGAAACAAGTCAGCGTCTGGCCAACCTCAGGCAACGGGTGGAGCAGTTTGCCAG  
GGCCTTCCCCATGCCTGGTTTTGATGAGCATTGAAGGCACCTGGGAAATGAGGCCACAGACTCAAAGTTACTCT  
CCTTCCCCCTACCTGGGCCAGTGAAATAGAAAGCCTTTCTATTTTTTGGTGCGGGAGGGAAGACCTCTCACTTAG  
GGCAAGAGCCAGGTATAGTCTCCCTTCCCAGAATTTGTAAGTGAAGATCTTTTCTTTTCTTTTGGTAA  
CAAGACTTAGAAGGAGGGGCCAGGCACCTTCTGTTTGAACCCCTGTCATGATCACAGTGTGAGAGACGCGTCCTC  
TTTCTTGGGGAAGTTGAGGAGTGCCCTTCCAGAGCCAGTAGCAGGCAGGGGTGGGTAGGCACCCTCCTTCTGTTT  
TTATCTAATAAAATGCTAACCTGCCCTGAGTTTCCATTACTGTGGGTGGGGTTCCCCTGGGCCAAACAGTGATTT  
GTCTCCCTCAATGTGTACACCGCTCCGCTCCACCACCGCTACCACAAGGACCCCCGGGGCTGCAGCCTCCTCTT  
TCTGTCTCTGATCAGAGCCGACACCAGACGTGATTAGCAGGCGCAGCAAATTCAATTTGTTAAATGAAATTGTAT  
TTTGAAAAAAAAAAAAAAAAA

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**FIGURE 898**

MLYFSLFWAARPLQRCGQLVRMAIRAQHSNAAQTQTGEANRGWTGQESLSDSDPEMWELLQREKDRQCRGLELIA  
SENFCSRAALEALGSCLNKYSEGYPGKRYYGGAENVDEIELLCQRRALEAFDLDPAQWGVNVQPYSGSPANLAV  
YTALLQPHDRIMGLDLPDGGHLTHGYMSDVKRISATSIFFESMPYKLNPKTGLIDYNQLALTARLFRPRLIIAGT  
SAYARLIDYARMREVCDEVKAHLLADMAHISGLVAAKVIPSPFKHADIVTTTTHKTLRGARSGLIFYRKGVKAVD  
PKTGREIPYTFEDRINFVFP SLQGGPHNHAIAVAVALKQACTPMFREYSLQVLKNARAMADALLERGYSLVSG  
GTDNHLVLDLRPKGLDGARAERVLELVSITANKNTCPGDRSAITPGGLRLGAPALTSRQFREDDFRRVVD IDE  
GVNIGLEVKSKTAKLQDFKSFLDKDSETSQRLANLRQVEQFARAFPM PGFDEH

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**FIGURE 899**

**FIGURE 899**

[illegible]

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**FIGURE 900**

MHHNKQATENAKEEVRRLGLLDAYLKTRTFLVGERVTLADITVVCTLLWLYKQVLEPSFRQAFPNTNRWFLT  
CI  
NQPQFRAVLGEVKLCEKMAQFDAKKFAETQPKKDTPRKEKGSREEKQKPQAERKEEKAAAPAPEEEMDECEQAL  
AAEPKAKDPFAHLPKSTFVLDEFKRKYSNEDTLSVALPYFWEHFDKDGWSLWYSEYRFPEELTQTFMSCNLITGM  
FQRLDKLRKNAFASVILFGTNNSSSISGVWVFRGQELAFPLSPDWQVDYESYTWKLDPGSEETQTLVREYFSWE  
GAFQHVKGAFNQGKIFK

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**FIGURE 901A**

CAAGCCAATTATGGCTCCCTTTCCCAATGGTAGTTTGTGAATGGCTTTAATTCGCCAGGATCTTATAAAACAAAT  
GCTGCTGCTATGAATATGGGTCGACCATTCCAAAAAATCGTGTGAAGCCTCAGTTTAGGTCATCTGGTGGTTCA  
GAACACTCAACAGAGGGCTCTGTATCCTTGGGGGATGGACAGTTGAACAGATATAGTTCAAGAACTTTCCAGCT  
GAACGGCATAACCCACAGTAACCTGGGCATCAGGAGCAAACCTTACCTTCAGAAGGAGACTTCCACTTTGCAGGTG  
GAACAGAAATGGGGACTATGGTAGGGGACAGGAGAACTCTCTTCAGAGGTCGAAGACGACGAGAAGATGACAGGATC  
TCAAGACCTCATCCTTCAACAGCTGAATCAAAGGCTCCAACACCAAAGTTTGACTTATTAGCCTCAAATTTTCCA  
CCTTTACCTGGAAGTTCATCAAGAATGCCAGGTGAACCTCGTTTGGAGAATAGGATGTCTGATGTTGTTAAAGGTG  
TCTACAAAGAAAAGGATAATGAAGAGTTGACAATTAGTTGCCAGTGCCCTGCAGATGAGCAGACAGAATGCACTT  
CTGCCCAGCAACTCAATATGAGTACCAGTTCTCCATGTGCTGCTGAGCTTACTGCATTAAGCACAACTCAGCAAG  
AAAAGGATCTAATAGAAGATTCTCTGTTTCAAGGATGGTCTCAATCAGACAACCTATACCAGTTTCTCCTCCAA  
GTACTACAAAGCCATCGAGGGCAAGTACTGCTTCACCATGTAATAATAACATAAATGCAGCTACAGCTGTGGCTC  
TACAGGAACCCGAAAGTTAAGTTATGCTGAAGTGTGCCAGAAGCCCCCTAAAGAGCCATCTTCAGTTCTTGTGC  
AGCCACTACGGGAACCTTCGCTCCAATGTGGTGTCTCCACCAAATAAAGACAATGGAGCTCCTGAGAACTCCG  
TTGAGAAACCACATGAGAAGCCAGAAGCAAGGGCTAGTAAGGATTATTCTGGCTTCCGAGGCAATATAATCCCCA  
GGGGAGCAGCAGGAAAAATCAGGGAACAGAGACGCCAGTTTAGCCATAGGGCTATACCTCAGGGAGTGACTCGAC  
GTAATGGCAAAGAGCAATATGTGCCACCCAGATCACCAAAGTAAAAAACAACAAACTATTCAAAAACCTTCACTC  
TCTTCCCATTAAACTTGAAGTGTGGCTATATTGAAGTGTTTTGGAGGGGAGGGGGTAGCCAGGAAGGAAACAAGA  
GAAAGTACGTCCATTTTATTATGGATTTTGGAGTTGTGAGTGATAGGATCCCAAATTCATCTCTAATGTGGTTT  
TTAAATGCTGGAGGATTCCAATCAATATAAATATATATATATATACACACATATATAAAAAGTATAATTTT  
TCTATTTTTGTTTTTGGTTTTAATTTGCAGAGATTTGCTGCCAGGAATCAATTTTGAGGGTTCAGATTTAGCTTG  
GAAGAAAAAAGAAACATACATCCTTCAGTATAGGAGATGAGGGAATGAGAGAAAATATTTTTTGAAGAAGCAT  
TTCTGTAAAATTAGAAATTACTTTTTTTAATCTATTTAAAGTTTGGCTTGAAGAATGCCATCTCTGACTATATGG  
CCTTGATTGCAAAGCAGATCAGTGGCTGGGGTGCCTGTTGTGGGTGTGAGTGTGTACAAGAGCGATTGAAGCCA  
AATCTGTTGTATGTTAGTAAATGATTTGAAAACCTGAATGTAATACTTGAGTAGATTTTTTTTTTCTAGTTTGAAA  
TTTAGTCTGTCTTTTTGACCTTACTAATATTTTCAATTTAACAAGTTGTAAAACCTCTGATTGTACTTAGAGATGTGA  
CTACCAATCAGTTTGATACTCAAGGAAAGGGGGTATTCAAGAAATTGAAAATTTTCACTCTGGACCTCAGTGCAT  
CGGTCAAATGGATTTAGAGGTTTAAACTTCCCTGTGATTCCCCCTGAATACCCCCAAAATGAGAAACAAAATTT  
TTTTTCTTACTCCATTTGTTACTCTCTGTTCTTTGACTGCCACCCACAGAAAAGCAAAATAACCAACTACCTAC  
TCAATTGTGTGTTTGTAAATTGCTTTGAGCAGTCTAGTCAAATCATATAAATTGTTCTAAATTTTCAAGATTGAACA  
TTGAAGTATTAACCTCTCTGTTTACACATTTAGAATTTTAGCTCCCAAGATGGTAGGGCAGACTGACCGTACAGT  
AATTTATTTGTCGTTAGTGTTAAAGATTAAGCATAGTAACTGACTCTTAAGTGTTAAATAATGTAGAAGTAAAA  
AATTTTTTTTTAAAGGCTTAATTTGGGAGGGGGGACTTATTTCTGTTTACAGTGTATTACCTTCCTTCCCTCCTCT  
TCTCCCCCACACCCAACAAAATACAGTTTGAATTTCACTGAAACAGTACCAGCAAGTCATGAGATTTTTTAGTA  
AAGATGAGAAAGATGGTTGAAGAAAATTAGTGCATAATTTCTCAGTGAATAAAGTTGTAGCTCTCATATACTAAA  
TAGACAAGTTTACATGCTGTTATTTAGAAAATGACTAAAATATTAATAACCGTGTGTGTTAATCTGTTTTAAGT  
CATACCATGTTTCAAGTCTATGTAAGGTGGGTTTTATTTTTCTTTTAAGGGATAGTTTGTAAATAGTAAGAACTG  
TCCCATATGTTAGTAAATTACATATGTACAAATTGAAACTGTAAATTGTGAACACTGGAAAGCACCATTGTGACA  
TAGAGTAAACATCTTAGTAATATATTAAAGTGAATGTAAATGGTGGTTAAATTTACATTACTGTGAAATTCATCT  
TCCAACCTAAGTTAAGCTTTGGAGATACATGTTAGTGGTTAACTGTTAAGAGCTTTGAAAACACTGCACATATC  
TGTACAAGCCAGAATTACTATTTCTTTGACTTATTATTAGCTTGGCAGTTGCTTTTGATTTGATTGTTTTATGAC  
ATGGTATACTACTATATTTTACTCAGTTTGAAACTATTCAATTTCTACACACTATTTTTTAAAAATTGCCTACTAGGT  
GAAACATAACAATAAACTACCTGTGCTGAAATTTGGGGGAAGTTTAGGTCCTTTAAAAAACATATTAATCATT  
GACTACATCTATGATAAAAGTGCTTATTTTGGTTTACTAAGATAATGCAGTTGGTGGAAATGATAAACGTTTTAA  
GTGTTAACATCCTTTGAATGCGTTGGATTTTCAAGAGAATAAACATTTTGTAAAAATCACTTGGTAAGGATTATAAA  
CTTAATTACTGCACTTAAATGAAACATTACTTTTTTTAAACAATGTGTCACAAATGTAGGTCTGTATTACTTGT  
ATGCTTGTGTGACTTACTGTTAGTCCAGCTCTAAAAATTTAAAGGTTGTAAATTGAAATACAAGAAAAGAGCCTTC  
TTTTAGAAGAAAGCAAGTATATTTTTGCTTTTACTTCAAATGTTATTTAAAGTAGAAATTTAATTTGTAGATATA  
ACCTTTAAAAATTTTCTCATTAAAGACAATGTTTTTAATTTAATTTGCCTCATTACATCTAATAGTTCCCATTTGA

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**FIGURE 901B**

TGGCATGTATAGGGAAGAGTGANNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNAATATTTATATATATTCACAGTATG  
TATTTAGCATTTATTTTATTACAGCAGATTTAAAGTTTGTATCTAAATAATGCCTATGAGTTGTGTGAAGCTCTT  
GGCTTTTTTCCAACGTTACTTTGTAACATAAGAGGTGGATGTTTCATTGTAGTTTATTTATTTGGTTCTTTAGAT  
GGAGGAATTTAAAAAATCAAATTTTTCTCTTCACCTTTATGACTTGACATTTCCCTTGATCTGTTGGAGGCTAAAA  
GTAGGTATAAATGATATTGAATGTTGGGTATAGTGATACTCTGCCATAGTTCTTACTGCATGAAGAGAACAAGAG  
TCACACAAGTTCACCACTTTGCACTTCATAGAGAAGGTACATAGAGACATTGCAAAACCTGTCTCCATTTGCTAT  
CCTGATAATTAAGGTTTTTCATAATACCTAGGGCCTGTCTCTGAGTAATTTTAATTTTGCCAAATACACTGACATT  
TAAAAATAGTGATCCATCTAAATTTTTTTCAGCTGGGTTTTGAGGAATATAAGAGCTTCAATGATAAAGGTTTGT  
TGTAAGTTGCTTATGTGCTGAATTTGCAGATGATCAGATGCTGTGCAGAATTCTGATTTATTTTGTTCCTAAA  
ATTAAGATAGCTTGAATATTATTTACATTCCTTTTTCTTTTTTAAATAAACAGGTTTGCTTTGGAAAGGCTTAA  
TGATGGAATGTTAGCATCTTCACTAGGGTAAAGAAGAACAAAAAGAATGTTGCTGGAACGTAAAATAGTATTTAA  
AAGTTAATGAACACTTCTCTAGTTTTCTTAGTTATGGCCTTAATAATTAGTCTCTTGGCTTAAATGTCCACTGGT  
TTTACTTTGACACAGTTGAACAACACTGGGGTTAAGTCTCTGGTATTTAGGCTGGCAATATATATATTAACCATA  
TTTTAAAAGTACCAATTTTGTTTTTTACAGAAAAGATAAAACTCAAAAAGAGAACAGTGTATTCCTTCTGAGGGCT  
TTTATAAATTATTAACATAATATATGATGGATTTTTTCCCTAATTTTTTATATTTCCCTTACAATTTTGGTGGCCA  
TTAATTTAACTTTAGGCTTTTGGGCATATGCTAGTCTGAGCTTCCGAAAAGATACATATATGTTTCCCTTTTCAT  
TAGCTGAATGAGGATATTTTAAGAAGTTGAAAGAGAATTTATTTTCAAGTTGTGAGTAAATCCTCCTTTGAAATT  
CACCTGATTATTAGATAACTTAAAGTTTATTTTTAAAAGCTGACAACTTTTTATGAATCTTCGAGTTGACAGTTC  
CTAAAAGCGTAACTCAGATATTAATGGGCTGTGTATTAAATGGTTTTATTTTCAGTTTTGCAGCACAGAACACTG  
TTGAAATATCCATATCAACTTGATTTTTTTAACCTAATTCAGGTGTCCTTTGCATCTCTTAAATGTTGGGGGTGG  
GGGTCAGAGCCAGTTATCCGGCTTCTGTTTTGTGCGATTGCTTAGATTTGTTCCCTGTTGTCAAACTGTTACCCCC  
AAAAATTGGTGTGACACATGCTCATGCATAAAATGTTAAAATGAGTACATCCTTGTATTTGTATTTGTTTTCAACA  
TCGCCAAGGTGCTATGGGAAATTAACAAAATTAGAAAAAAAATAAAATTATTAAAAAGCAGAAAAA



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**FIGURE 902**

MNMGRPFQKNRVKPFQFRSSGGSEHSTEGSVSLGDGQLNRYSSRNFP AERHNPTVTGHQEQTYLQKETSTLQVEQN  
GDYGRGRRTLFRGRRRREDDRISRPHPSTAESKAPTPKFDLLASNFPPLPGSSSRMPGELVWRIGCLMLLKVSTK  
KRIMKSTISCPVPADEQTECTSAQQLNMSTSSPCAAELTALSTTQQEKDLIEDSSVQKDGLNQTTIPVSPSTTK  
PSRASTASPCNNNINAATAVALQEPRKLSYAEVCQKPPKEPSSVLVQPLRELRSNVVSPTKNEDNGAPENSVEKP  
HEKPEARASKDYSGFRGNIIPRGAAGKIREQRRQFSHRAIPQGVTRRNGKEQYVPPRSPK

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**FIGURE 903**

AAAAGGGAAGCCTGCAACAAGTTAAGCTGAAGACCGAAGCAAGAGCTGGTTCAGCCTGCCAGTGGAGACACTGGG  
CCCGGCATCCAGGATGGACCCAGAATCTGAGAGAGCCCTGCAGGCCCTCACAGCCCCTCCAAGACAGATGGGAA  
AGAATTAGCTGGGACCATGGATGGAGAAGGGACGCTCTTCCAGACTGAAAGCCCTCAGTCTGGCAGCATTCTAAC  
AGAGGAGACTGAGGTCAAGGGCACCTGGAAGGTGATGTTTGTGGTGTGGAGCCTCCTGGCCCAGGAGACACAGT  
AGTCCAGGGAGACCTGCAGGAGACCACCGTGGTGACAGGCCTGGGACCAGACACACAGGACCTGGAAGGCCAGAG  
CCCTCCACAGAGCCTGCCTTCAACCCCCAAGCAGCTTGGTTCAGGGAGGAGGGCCGCTGCTCCAGCAGTGACGA  
TGACACCGACGTGGACATGGAGGGTCTGCGGAGACGGCGGGGCCGGGAGGCCGGCCACCTCAGCCCATGGTGCC  
CCTGGCTGTGGAGAACCAGGCTGGGGGTGAGGGTGACGGCGGGGAGCTGGGCATCTCCCTCAACATGTGCCTCCT  
TGGGGCCCTGGTTCTGCTTGGCCTGGGGGTCTCTCTTCTCAGGTGGCCTCTCAGAGTCTGAGACTGGGCCCAT  
GGAGGAAGTGGAGCGGCAGGTCTCTCCAGACCCCGAGGTGCTGGAAGCTGTGGGGGACAGGCAGGATGGGCTAAG  
GGAACAGCTGCAGGCCCCAGTGCCTCCTGACAGTGTCCCCAGCCTGCAAAACATGGGTCTTCTGCTGGACAAGCT  
GGCCAAGGAGAACCAGGACATCCGGCTGCTGCAGGCCCAGCTGCAGGCCCAAAAGGAAGAGCTTCAGAGCCTGAT  
GCACCAGCCCAAGGGCTAGAGGAGGAGAATGCCAGCTCCGGGGGGCTCTGCAGCAGGGCGAAGCCTTCCAGCG  
GGCTCTGGAGTCAGAGCTGCAGCAGCTGCGGGCCCCGGCTCCAGGGGCTGGAGGCCGACTGTGTCCGGGGCCCCAGA  
TGGGGTGTGCCTCAGTGGGGATAGAGGCCACAGGGTGACAAGGCCATCAGGGAGCAAGGCCCCAGGGAGCAGGA  
GCCAGAATCAGCTTCCCGAAGCAGAAGGAACAGCTGGAGGCTGAGGCACAGGCATTAAGGCAAGAGTTAGAGAG  
GCAGCGACGGCTGCTGGGGTCTGTACAGCAGGATCTGGAGAGGAGCTTGCAGGATGCCAGCCGCGGGGACCCAGC  
TCATGCTGGCTTGGCTGAGCTGGGCCACAGATTGGCCAGAACTGCAGGGCCTGGAGAATCTGGGGCCAGGACCC  
TGGGGTCTCTGCCAATGCCTCAAAGGCCTGGCACCAGAAGTCCCACTTCCAGAATTCTAGGGAGTGGAGTGGAAA  
GGAAAAGTGGTGGGATGGGCAGAGAGACCGGAAGGCTGAGCACTGGAACATAAGAAGGAAGAATCTGGCCGGGA  
AAGGAAGAAGAACTGGGGAGGTGACGAGGACAGGGAGCCAGCAGGAAGGTGGAAGGAGGGCAGGCCAAGGGTGA  
GGAGTCGGGGAGCAAGAAGGAGGGCAAGCGACAGGGCCCCGAAGGAACCCCCAAGGAAAAGTGGTAGCTTCCACTC  
CTCTGGAGAAAAGCAGAAGCAACCTCGGTGGAGGGAAGGGACTAAGGACAGCCATGACCCCTGCCATCCTGGGC  
AGAGCTGTTGAGGCCCAAGTACCGGGCACCCAGGGCTGCTCAGGTGTGGACGAGTGTGCCCGGCAGGAGGGCCT  
GACTTTCTTTGGCACAGAGCTAGCCCCAGTGCGGCAACAGGAGCTGGCCTCTCTGCTAAGAACATACTTGGCACG  
GCTGCCCTGGGCTGGGCAGCTGACCAAGGAGCTACCCCTCTCACCTGCTTTCTTTGGTGGAGATGGCATCTTCCG  
TCATGACCGCCTCCGCTTCCGGGATTTTGTGGATGCCCTGGAGGACAGCTTGGAGGAGGTGGCTGTGCAACAGAC  
AGGTGATGATGATGAAGTAGATGACTTTGAGGACTTCATCTTCAGCCACTTCTTTGGAGACAAAGCACTGAAGAA  
GAGGTGAGGGAAGAAGGACAAGCACTCACAGAGCCCAAGAGCTGCGGGGCCAGGGAGGGGCACAGCCATAGCCA  
CCACCACCACCACCGGGCTGACACCCCTGCCCCACAGGGAATGGCCTTGGCCTGGCCCAGCCCAAGATCCCAGCG  
TTATCTAACTCCTGGAGGGTGGACTCTGTCTCGCTTGTGTTTGGTGTCTCAGATATCTTTACACAGTAGAGCAA  
AATCACCAGCCCTGCACTGATGTCACTTTATGTAGAAAAAGGCCTTAGCTGGACCTGTGTTGCCGTCTATGCAAA  
TGCATGCAAATACTCCAGGCCCTGGGATGTGGGCTTGTGTTTTGTCACTGTGAAGGGGGAGATGGGAGAGGAGCC  
TGTTTTGGGGTGGGGTCTGGGGAAGGCAATCTGATTCTGAAGCTAAAGAGCTTTTCATCCTCTTGAGTGTATGTCC  
CCATAGTGGGCCCCCTTGACCCACATGCTGACCGGTGCCTTGGGATTTGACTAGAGTTGCTGGCTCGAGGCCACG  
ACGAGGACTTACCTGGGGTTTTGTTAGGTTTGAAGCAGCTGTCCCTAGGGGGTGAAGTCCCCCCCCCTTTTTTT  
TTTTACCCCTGCTTCTCCACGGCTTACCTCCCTATGTGAAGTGTAGACTCAGATCCCAATAAAGTGCTGTTGC  
AGCTATGATGCTAGGTGGTTTCTAAGCACAGGGGACACCCACACCCCTGCCTGAATGGATGGGTCCATCCCAG  
GCACTGGTACTTGGCCCCCTTGTCTGTATCCCCCTTGCCCTTGCCCTTCCAACAAACCCTAGGCCCTTG  
AGAAGCTGATACTTCTCCTTTTGCTCACAGCTGCCTTGGCCCCACCCCTGGGAGATGTAGCAAATTGAGTGTGGG  
TTTTGGAGTCTGAGCCTCAGGCTCAAATCCAGGCCAAGTGATCTTGGGCAAGTTAATCTCTGGGGACTTTGGGT  
TCTTATCCTCAAAAAGGCGATGGAAGGGCTGGGGAAGTGATTAAATAAAGCAACGCAAGAAAAATGCC

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**FIGURE 904**

MDPESERALQAPHSPSKTDGKELAGTMDGEGTLFQTESPQSGSILTEETEVKGTLEGDVCGVEPPGPGD TVVQGD  
LQETTVVTGLGPD TDLEGQSPPQSLPSTPKAAWFREEGRCSSSDDDTDV DMEGLRRRRGREAGPPQPMVPLAVE  
NQAGGEGAGGELGISLNMCLL GALVLLGLGVLLFSGGLSESETGPMEEVERQVLPDPEVLEAVGDRQDGLREQLQ  
APVPPDSVPSLQNMGLLLDKLAKENQDIRLLQAQLQAQKEELQSLMHQPKGLEEENAQLRGALQQGEAFQRALES  
ELQQLRARLQGLEADCVRGPDGVCLSGDRGPQGDKAIREQGPREQEP ELSFPKQKEQLEAEAQALRQELERQRR L  
LGSVQQDLERSLQDASRGDPAHAGLAELGHRLAQKLQGL ENWGQDPGVSANASKAWHQKSHFQNSREWSGKEKWW  
DGQRDRKAEHWKHKKEESGRERKKNWGGQEDREPAGRWKEGRPRVEESGSKKEGKRQGPKEPPRKSGSFHSSGEK  
QKQPRWREGTKDSDPLPSWAELLRPKYRAPQGCSGVDECARQEGLTFFGT ELAPVRQQELASLLR TYLARLPWA  
GQLTKELPLSPAFFGEDGIFRHDRLRFRDFVDALEDSLEEVAVQQTGDDDEVD DFEDFIFSHFFGDKALKKRSGK  
KDKHSQSPRAAGPREGHSHSHHHHHRG

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**FIGURE 905**

CGAGG**ATG**TGCGTGGGGGCTCGGCGGCTGGGCCGCGGGCCGTGTGCGGCTCTGCTCCTCCTGGGCCTGGGGCTGA  
 GCACCGTGACGGGGCTCCACTGTGTGCGGGGACACCTACCCCAGCAACGACCGGTGCTGCCACGAGTGCAGGCCAG  
 GCAACGGGATGGTGAGCCGCTGCAGCCGCTCCCAGAACACGGTGTGCCGTCCGTGCGGGCCGGGCTTCTACAACG  
 ACGTGGTCAGCTCCAAGCCGTGCAAGCCCTGCACGTGGTGTAACTCAGAAGTGGGAGTGAGCGGAAGCAGCTGT  
 GCACGGCCACACAGGACACAGTCTGCCGCTGCCGGGCGGGCACCCAGCCCCTGGACAGCTACAAGCCTGGAGTTG  
 ACTGTGCCCCCTGCCCTCCAGGGCACTTCTCCCCAGGCGACAACCAGGCCTGCAAGCCCTGGACCAACTGCACCT  
 TGGCTGGGAAGCACACCCTGCAGCCGGCCAGCAATAGCTCGGACGCAATCTGTGAGGACAGGGACCCCCAGCCA  
 CGCAGCCCCAGGAGACCCAGGGCCCCCGGCCAGGCCCATCACTGTCCAGCCCACTGAAGCCTGGCCCAGAACCT  
 CACAGGGACCCTCCACCCGGCCCGTGGAGGTCCCCGGGGGCCGTGCGGTTGCCGCCATCCTGGGCCTGGGCCTGG  
 TGCTGGGGCTGCTGGGGCCCCCTGGCCATCCTGCTGGCCCTGTACCTGCTCCGGAGGGACCAGAGGCTGCCCCCG  
 ATGCCACAAAGCCCCCTGGGGGAGGCAGTTTCCGGACCCCCATCCAAGAGGAGCAGGCCGACGCCCACTCCACCC  
 TGGCCAAGATC**TGA**CTGGGGCCACCAAGGTGGACGCTGGGGCCCCGCCAGGCTGGAGCCCGGAGGGTCTGCTGGG  
 CGAGCAGGGCAGGTGCAGGCCGCTGCCCGCCACGCTCCTGGGCCAACTCTGCACCGTTCTAGGTGCCGATGGC  
 TGCCTCCGGCTCTCTGCTTACGTATGCCATGCATACCTCCTGCCCCGCGGGACCACAATAAAAACCTTGGCAGAC  
 GGGAGTCTCCGACCGGCAAAAAAAAAAAAAAAAAA

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**FIGURE 906**

MCVGARRLGPGCAALLLLGLGLSTVTGLHCVGDTYPSNDRCCHECRPGNGMVSRCRSQNTVCRPCGPGFYNDV  
VSSKPCKPCTWCNLRSGSERKQLCTATQDTVCRCRAGTQPLDSYKPGVDCAPCPPGHFSPGDNQACKPWTNCTLA  
GKHTLQPASNSSDAICEDRDPPATQPQETQGPPARPITVQPTAWPRTSQGPSTRPVEVPGGRAVAAILGLGLVL  
GLLGPLAILLALYLLRRDQRLPPDAHKKPPGGGSFRTPIQEEQADAHSTLAKI

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**FIGURE 907**

**ATG**ACCAAAGCTGATCTCATAAATAATTTGGGAACCATTGCCAAGTCTGGTACTAAAGCATTTCATGGAGGCTCTT  
CAGGCTGGTGCAGACATCTCCATGATTGGGCAGTTTGGTGTGGCTTTTATTCTGCCTACTTGGTGGCAGAGAAA  
GTGGTTGTGATCACAAAGCACACGATGATGAACAGTATGCTTGGGAGTCTTCTGCTGGAGGTTCCCTTCACTGTG  
CGTGCTGACCATGGTGAGCCCATTGGCAGGGGTACCAAAGTGATCCTCCATCTTAAAGAAGATCAGACAGAGTAC  
CTAGAAGAGAGGCGGGTCAAAGAAGTAGTGAAGAAGCATTCTCAGTTCATAGGCTATCCCATCACCCCTTTATTG  
GAGAAGGAACGAGAGAAGGAAATTAGTGATGATGAGGCAGAGGAAGAGAAAGGTGAGAAAGAAGAGGAAGATAAA  
GATGATGAAGAAAAGCCCAAGATCGAAGATGTGGGTTCAGATGAGGAGGATGACAGCGGTAAGGATAAGAAGAAG  
AAAATAAGAAGATCAAAGAGAAATACATTGATCAGGAAGAACTAAACAAGACCAAGCCTATTTGGACCAGAAAC  
CCTGATGACATCACCCAAGAGGAGTATGGAGAATTCTACAAGAGCCTCACTAATGACTGGGAAGACCACTTGGCA  
GTCAAGCACTTTTCTGTAGAAGGTGAGTTGGAATTCAGGGCATTGCTATTTATTCCTCGTCGGGCTCCCTTTGAC  
CTTTTTGAGAACAGAAGAAAAAGAACATCAAACCTCTATGTCCGCCGTGTGTTTCATCATGGACAGCTGTGAT  
GAGTTGATAACCAGAGTATCTCAATTTTATCCGTGGTGTGGTTGACTCTGAGGATCTGCCCTGAACATCTCCCGA  
GAAATGCTCCAGCAGAGCAAATCTTGAAAGTCATTTCGAAAAACATTGTTAAGAAGTGCCTTGAGCTCTTCTCT  
GAGCTGGCAGAAGACAAGGAGAATTACAAGAAATTTCTATGAGGCATTCTCTAAAAATCTCAAGCTTGGAATCCAC  
GAAGACTCCACTAACCGCCGCCGCTGTCTGAGCTGCTGCGCTATCATACCTCCCAGTCTGGAGATGAGATGACA  
TCTCTGTCAGAGTATGTTTCTCGCATGAAGGAGACACAGAAGTCCATCTATTACATCACTGGTGAGAGCAAAGAG  
CAGGTGGCCAACCTCAGCTTTTGTGGAGCGAGTGCAGAAACGGGGCTTCGAGGTGGTATATATGACCGAGCCCATT  
GACGAGTACTGTGTGCAGCAGCTCAAGGAATTTGATGGGAAGAGCCTGGTCTCAGTTACCAAGGAGGGTCTGGAG  
CTGCCTGAGGATGAGGAGGAGAAGAAGAAGATGGAAGAGAGCAAGGCAAAGTTTGAGAACCTCTGCAAGCTCATG  
AAAGAAATCTTAGATAAGAAGGTTGAGAAGGTGACAATCTCCAATAGACTTGTGTCTTCACCTTGCTGCATTGTG  
ACCAGCACCTACGGCTGGACAGCCAATATGGAGCGGATCATGAAAGCCCAGGCACTTCGGGACAACCTCCACCATG  
GGCTATATGATGGCCAAAAGCACCTGGAGATCAACCCTGACCACCCCATTTGTGGAGACGCTGCGGCAGAAGGCT  
GAGGCCGACAAGAATGATAAGGCAGTTAAGGACCTGGTGGTGTGCTGTTTGAACCGCCCTGCTATCTTCTGGC  
TTTTCCCTTGAGGATCCCCAGACCCACTCCAACCGCATCTATCGCATGATCAAGCTAGGTCTAGGTATTGATGAA  
GATGAAGTGGCAGCAGAGGAACCCAATGCTGCAGTTCTGATGAGATCCCCCTCTCGAGGGCGATGAGGATGCG  
TCTCGCATGGAAGAAGTCGAT**TAG**GTTAGGAGTTCATAGTTGGAAAACTTGTGCCCTTGATAGTGTCCCCATGG  
GCTCCCACTGCAGCCTCGAGTGCCCTGTCCACCTGGCTCCCCCTGCTGGTGTCTAGTGTTTTTTT

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**FIGURE 908**

MTKADLINNLGTIAKSGTKAFMEALQAGADISMIGQFGVGFYSAYLVAEKVVVITKHNDDEQYAWESSAGGSFTV  
RADHGEPIGRGTKVILHLKEDQTEYLEERRVKEVVKKHSQFIGYPITLYLEKEREKEISDDEAEEEEKGEKEEEDK  
DDEEKPKIEDVGSDEEDDSGDKKKKTKKIKEKYIDQEELNKTPIWTRNPDDITQEEYGEFYKSLTNDWEDHLA  
VKHFSVEGQLEFRALLFIPRRAPFDLFENKKKKNNIKLYVRRVFIMDSCDELIPEYLNFIIRGVVDSEDLPNISR  
EMLQQSKILKVIRKNIVKKCLELFSELAEDKENYKKFYEAFSKNLKLGIHEDSTNRRRLSELLRYHTSQSGDEMT  
SLSEYVSRMKETQKSIYYITGESKEQVANSFAVERVRKRGFEVVYMTPEIDYCVQQLKEFDGKSLVSVTKEGLE  
LPEDEEEKKKMEESKAKFENLCKLMKEILDKKVEKVTISNRLVSSPCCIVTSTYGTANMERIMKAQALRDNSTM  
GYMMAKKHLEINPDHPIVETLRQKAEADKNDKAVKDLVLLFETALLSSGFSLEDPQTHSNRIYRMIKLGID  
DEVAAEEPNAAPDEIPPLEGDEDASRMEEVD

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**FIGURE 909**

ACTCTTCTGGTCCCCACAGACTCAGAGAGAACCCACC**ATG**GTGCTGTCTCCTGCCGACAAGACCAACGTCAAGGC  
CGCCTGGGGTAAGGTCGGCGCGCACGCTGGCGAGTATGGTGCGGAGGCCCTGGAGAGGATGTTCTGTCTTCCC  
CACCACCAAGACCTACTTCCCGCACTTCGACCTGAGCCACGGCTCTGCCCAGGTTAAGGGCCACGGCAAGAAGGT  
GGCCGACGCGCTGACCAACGCCGTGGCGCACGTGGACGACATGCCCCAACGCGCTGTCCGCCCTGAGCGACCTGCA  
CGCGCACAAAGCTTCGGGTGGACCCGGTCAACTTCAAGCTCCTAAGCCACTGCCTGCTGGTGACCCTGGCCGCCCCA  
CCTCCCCGCCGAGTTCACCCCTGCGGTGCACGCCTCCCTGGACAAGTTCTTGGCTTCTGTGAGCACCGTGCTGAC  
CTCCAAATACCGT**TAA**GCTGGAGCCTCGGTAGCCGTTCTCTCCTGCCGCTGGGCCTCCCAACGGGCCCTCTCCC  
CTCCTTGCAACCGGCCCTTCCTGGTCTTTGAATAAAGTCTGAGTGGGCGGC



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**FIGURE 910**

MVLSPADKTNVKAAGKVGAGHAGEYGAEALERMFLSFPTTKTYFPHFDLSHGSAQVKGHGKKVADALTNAVAHV  
DMPNALSALSDLHAHKLRVDPVNFKLLSHCLLVTLAAHLPAEFTPAVHASLDKFLASVSTVLTSKYR

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**FIGURE 911**

GGAGTGC GGGGCGCCCGGCCAGGGGAGCCGCCACAGCC**ATGG**ATTGCAAAGATAGACCAGCTTTTCCAGTTAA  
GAAGTTAATACAAGCCCGTCTGCCGTTTAAGCGCCTGAATCTTGTCCCAAAGGGGAAAGCCGATGACATGTCAGA  
CGATCAGGGTACTTCTGTGCAAAGTAAAAGCCCCGATTTAGAGGCCTCTTTGGACACCTTGGAAAACAAGTGTCA  
TGTGGGTTCTGACATAGACTTTAGACCGAAACTTGTCAACGGGAAGGGTCCCTTAGATAACTTTTAAAGAAATAG  
AATCGAAACCAGTATTGGCCAGAGCACAGTCATCATTGATTTGACAGAGGACTCGAATGAGCAGCCAGACAGTCT  
TGTGGACCACAATAAACTAAATTCTGAAGCCTCTCCCTCCAGGGAGGCAATAAATGGCCAGCGAGAAGACACTGG  
GGATCAGCAGGGGTTGTTGAAGGCCATTGACAACGACAAGTTGGCATTTCCTGGAGAGACCCCTTCAGACATTCC  
TTGCAAAACAGAGGAGGAGGGTGTGGCTGTGGAGGTGCAGGGAGGAGAGGGCGACTCCCAGGAATGTTCCGCCACG  
GAGCTGCCCCGAGCTGACGAGTGGCCCGAGAATGTGCCCCAGAAAGGAGCAGGACAGTTGGAGTGAAGCTGGGGG  
CATCCTGTTCAAAGGGAAGGTGCCTATGGTGGTCTTGACAGGACATCTTGGCTGTGAGACCACCGCAAATCAAGTC  
CCTTCCAGCCACACCCCAAGGCAAGAACATGACCCCTGAGAGTGAGGTGCTGGAATCTTTCCCCGAAGAAGACTC  
TGTA CT CAGCCATTTCGTCCCTGAGCTCTCCCTCTTCCACCAGCTCGCCCCAGGGGGCCGCTGCTCCCCCAAAGCA  
GCACAGCAGTACCAGTCCCTTCCCCACCTCCACGCCCTCCGCAGAATAACTAAGAAATTTCGTCAAAGGCTCTAC  
AGAGAAGAACAAGCTCAGACTGCAAAGAGATCAGGAGCGTCTGGGCAAGCAGCTCAAGTTACGTGCAGAAAGGGA  
AGAAAAGGAGAAGCTGAAAGAGGAGGCCAAGCGGGCCAAGGAGGAGGCCAAGAAGAAGAAGGAGGAAGAGAAGGA  
GCTTAAGGAAAAGGAGAGGCGGGAGAAGCGGGAGAAGGATGAGAAGGAGAAGGCGGAGAAGCAGCGGCTCAAGGA  
GGAGCGGCGCAAGGAGAGACAGGAAGCCCTGGAGGCTAAACTTGAGGAAAAAGGAAAAAGGAAGAAGAGAAACG  
GTTAAGAGAAGAAGAGAAGCGCATTAAGCAGAGAAGGCCGAAATCACGAGGTTCTTCCAGAAACCAAAGACTCC  
ACAGGCCCCCAAGACCCTGGCCGGCTCCTGTGGGAAGTTTGCCCCCTTTGAAATTAAAGAGCACATGGTCCTGGC  
CCCTCGGCGTCGGACCGCTTTCATCCAGACCTCTGCAGTCAGCTGGACCAGCTCCTCCAGCAGCAGAGCGGCGA  
GTTCTCCTTCTTGAAGACCTCAAAGGCCGGCAGCCCTGAGGTCCGGACCCACGCACGTTTCCACCCGGAATGC  
AGATATTTTTTAACAGTGATGTGTCATCGTGGAGCGTGGGAAGGGCGACGGTGTTCCTGAGAGGAGGAAGTTTGG  
CAGGATGAAGCTCCTGCAGTTCTGTGAGAACCACGGCCTGCCTACTGGGGTACCTGGAATAAGAAGACGGCACT  
CATCCGCGCGCAGAGACCCCTGGGCCCAGGACACGAAGCTCCTGGACTATGAGGTGGACAGTGATGAGGAGTGGGA  
AGAAGAGGAGCCTGGGGAGTCCCTGTCCCACAGTGAGGGGGATGATGATGACGACATGGGAGAGGATGAAGATGA  
GGACGATGGTTTTCTTTGTGCCCCATGGGTACCTGTCTGAGGACGAAGGTGTGACAGAGGAGTGTGCCGACCCTGA  
GAACCATAAGGTCCGCCAGAACTGAAGGCCAAGGAGTGGGACGAGTTTCTGGCTAAGGGGAAGCGCTTTCGCGT  
CCTGCAACCTGTGAAGATCGGCTGCGTGTGGGCGGCTGACAGAGACTGCGCAGGCGATGACCTGAAGGTACTGCA  
GCAGTTCGCAGCCTGCTTCTTGAGACCCCTGCCGGCCAGGAGGAGCAGACGCCCAAGGCCTCCAAGCGGGAGAG  
GAGAGACGAGCAGATCCTGGCCAGCTGCTGCCGCTCCTGCACGGCAATGTGAACGGGAGCAAGGTCATCATCCG  
GGAGTTCAGGAGCACTGCCGCCGGGACTGCTCAGCAACCACACCGGCAGCCCGCGGACGCCCTCCACCACCTA  
CCTGCACACCCCCACCCCCAGCGAGGATGCCGCCATCCCCTCTAAGTCCCGGCTCAAGCGGCTCATTTCGAGAA  
CTCAGTGTATGAGAAGCGGCCTGACTTCAGGATGTGCTGGTACGTGCACCCGCAGGTGCTACAGAGCTTCCAGCA  
GGAGCACCTGCCCCTGCCGTGCCAGTGGAGCTATGTGACATCGGTGCCCTCGGCCCCCAAAGAGGACAGTGGCAG  
CGTCCCCTCCACGGGGCCAGCCAGGGCACTCCCATCTCGCTGAAGAGGAAGTCAGCGGGCAGCATGTGCATCAC  
CCAATTCATGAAGAAGCGCAGGCACGACGGCCAGATTGGTGTGTAAGACATGGACGGCTTCCAGGCAGACACGGA  
GGAGGAGGAAGAGGAGGAGGGCGACTGTATGATCGTGGATGTCCCGGATGCTGTGGAGGTCCAAGCCCCGTGTGG  
AGCCGCTTCCGGAGCTGGGGGTGGTGTGGGGGTGGACACCGGCAAGGCCACCCCTGACCGCGAGCCCACTGGGTGC  
ATCCT**TGAG**AGCAGGGGTGACGTATGTAGAACGCTTAGGGTGTCTCCCCACAGAGCAGATACTTGAACCGACTCA  
ATTCTGTGTAAAGAGCACTTTGTCTGCTTCACGGACCTCCCCAAAGTGTGCAGAGTTCTATATAGGATGCTGG  
ATTAGTTCCTTTGATATTTGTA AAAATTC CCCCCAAGAGCCGCATATGAATCTGCCCTTTAATAAAGCATTATTGA  
GATTGCTGGCCTATTGGGGAAGCTGCGGGCACAGGA

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**FIGURE 912**

MDCKDRPAFPVKKLIQARLPFKRLNLVPKKGADDMSDDQGTSVQSKSPDLEASLDTLENNCHVGSDIDFRPKLVN  
GKGPLDNFLRNRIETSIGQSTVIIDLTEDSNEQPDSDLVDHNKLNSEASP SREAINQREDTGDQQGLLKAIQNDK  
LAFPGETLSDIPCKTEEEGVGCGGAGRRGDSQECSPRSCPELTSGPRMCPRKEQDSWSEAGGILFKGKVP MVVLQ  
DILAVRPPQIKSLPATPQGKNMTPESVLESFPEEDSVLSHSSLSSPSSTSSPEGPPAPPKQHSSTSPFPTSTPL  
RRITKKFVKGSTTEKNLRLQDQERLGKQLKLRAEREEKEKLKEEAKRAKEEAKKKKEEEKELKEKERREKREKD  
EKEKAQKQRLKEERRKERQEALAKLEEKRKKEEEKRLREEEKRIKAEKAEITRFFQKPKTPQAPKTLAGSCGKF  
APFEIKEHMLAPRRRTAFHPDLCSQLDQLLQQQSSEFSLKDLKGRQPLRSGPTHVSTRNADIFNSDVVIVERG  
KGDGVPERRKFGRMKLLQFCENHRPAYWGTWNKKTALIRARDPWAQDTKLLDYEVDSDDEEWEEEEPGE SLHSEG  
DDDDDMGEDEDEDDGFFVPHGYLSEDEGVTEECADPENHKVRQKLKAKEWDEF LAKGKRFRVLQPVKIGCVWAAD  
RDCAGDDLKVLQQFAACFLETLP AQEEQTPKASKRERRDEQILAQLLPLLHGNVNGSKV IIREFQEHCRGLLSN  
HTGSPRTPSTTYLHTPTSEDAAIPSKSRLKRLISENSVYEKRPDFRMCWYVHPQVLQSFQQEHLVPVCQWSYVT  
SVPSAPKEDSGSVPSTGPSQGTPI SLKRKSAGSMCITQFMKKRRHDGQIGAEDMDG FQADTEEEEEEEGDCMIVD  
VPDAVEVQAPCGAASGAGGGVGVD TGKATLTASPLGAS

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**FIGURE 913**

[illegible]

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**FIGURE 914**

MLYFSLFWAARPLQRCGQLVRMAIRAQHSNAAQTQTGEANRGWTGQESLSDSDPEMWELLQREKDRQCRGLELIA  
SENFCSRAALEALGSCLNNKYSEGYPGKRYYGGAENVDEIELLCQRRALEAFDLDPAQWGVNVQPYSGSPANLAV  
YTALLQPHDRIMGLDLPDGGHLTHGYMSDVKRISATSIFFESMPYKLNPKTGLIDYNQLALTARLFRPRLIIAGT  
SAYARLIDYARMREVCDEVKAHLLADMAHISGLVAAKVIPSPFKHADIVTTTTHKTLRGARSGLIFYRKGVKAVD  
PKTGREIPYTFEDRINFVFP SLQGGPHNHAIAAVAVALKQACTPMFREYSLQVLKNARAMADALLERGYSLVSG  
GTDNHLVLVDLRPKGLDGARAERVLELVSITANKNTCPGDRSAITPGGLRLGAPALTSRQFREDDFRRVVD FIDE  
GVNIGLEVKSKTAKLQDFKSFLKDSSETSQR LANLRQ RVEQFARAFFMPGFDEH

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**FIGURE 915**

CTCGCCCGTCCGGCGCACGCTCCGCCTCCGTCAAGTTGGCTCCGCTGTCGGGTGCGCGGCGTGAGCGGCAGCCGG  
TCTGGACGCGCGGCCGGGGCTGGGGGCTGGGAGCGCGGCGCGCAAGATCTCCCCGCGCGAGAGCGGGCCCCTGCCA  
CCGGGCGAGGCCTGCGCCGCG**ATGG**CAGAGATGGGCAGTAAAGGGGTGACGGCGGGAAAAGATCGCCAGCAACGTG  
CAGAAGAAGCTCACCCGCGCGCAGGAGAAGGTTCTCCAGAAGCTGGGGAAGGCAGATGAGACCAAGGATGAGCAG  
TTTGAGCAGTGCCTCCAGAATTTCAACAAGCAGCTGACGGAGGGCACCCGGCTGCAGAAGGATCTCCGGACCTAC  
CTGGCCTCCGTCAAAGCCATGCACGAGGCTTCCAAGAAGCTGAATGAGTGTCTGCAGGAGGTGTATGAGCCCAGT  
TGGCCCCGCGAGGGATGAGGCAAACAAGATCGCAGAGAACAACGACCTGCTGTGGATGGATTACCACCAGAAGCTG  
GTGGACCAGGCGCTGCTGACCATGGACACGTACCTGGGCCAGTTCCCCGACATCAAGTCACGCATTGCCAAGCGG  
GGGCGCAAGCTGGTGGACTACGACAGTGCCCGGCACCACTACGAGTCCCTTCAAAGTGCCTGAGGAGGATGAA  
GCCAAAATTGCCAAGGCCGAGGAGGAGCTCATCAAAGCCCAGAAGGTGTTTGAGGAGATGAATGTGGATCTGCAG  
GAGGAGCTGCCGTCCCTGTGGAACAGCCGCGTAGGTTTCTACGTCAACACGTTCCAGAGCATCGCGGGCCTGGAG  
GAAAAGTTCACAAAGGAGATGAGCAAGCTCAACCAGAACCTCAATGATGTGCTGGTTCGGCCTGGAGAAGCAACAC  
GGGAGCAACACCTTCACGGTCAAGGCCAGCCAGTGACAACGCGCCTGCAAAAGGGAACAAGAGCCCTTCGCCT  
CCAGATGGCTCCCCTGCCGCCACCCCCGAGATCAGAGTCAACCACGAGCCAGAGCCGGCGGGCGGGGCCACGCC  
GGGGCCACCTCCCCAAGTCCCCATCTCAGCTCCGGAAGGGCCACCAGTCCCTCCGCCTCCCAAACACACCCCG  
TCCAAGGAAGTCAAGCAGGAGCAGATCCTCAGCCTGTTTGAGGACACGTTTGTCCCTGAGATCAGCGTGACCACC  
CCCTCCCAGCCAGCAGAGGCCTCGGAGGTGGCGGGTGGGACCCAACCTGCGGCTGGAGCCCAGGAGCCAGGGGAG  
ACGGCGGCAAGTGAAGCAGCCTCCAGCTCTCTTCTGCTGTCTGCTGGTGGAGACCTTCCAGCAACTGTGAATGGC  
ACCGTGGAGGGCGGCAGTGGGGCCGGGCGCTTGACCTGCCCCAGGTTTCATGTTCAAGGTACAGGCCCAGCAC  
GACTACACGGCCACTGACACAGACGAGCTGCAGCTCAAGGCTGGTGTGTTGGTGTGTTGGTGTGTTGGTGTGTTGGT  
CCTGAAGAGCAGGATGAAGGCTGGCTCATGGGCGTGAAGGAGAGCGACTGGAACCAGCACAAAGGAGCTGGAGAAG  
TGCCGTGGCGTCTTCCCCGAGAACTTCACTGAGAGGGTCCCA**TGAC**CGGCGGGGCCAGGCAGCCTCCGGGCGTGT  
GAAGAACACCTCCTCCCCGAAAAATGTGTGGTTCTTTTTTTTGTGTTTGTGTTTTCGTTTTTTCATCTTTTGAAGAGCAA  
AGGGAAATCAAGAGGAGACCCCCAGGCAGAGGGGCGTTCTCCCAAAGATTAGGTCGTTTTTCAAAGAGCCGCGTC  
CCGGCAAGTCCGGCGGAATTACCAAGTGTTCCTGAAGCTGCTGTGCTCCTCTAGTTGAGTTTCTGGCGCCCCTGCC  
TGTGCCCCGATGTGTGCTGGCCGACGGGCGGGGCTGGGGGCTGCCGAGCCACCATGCTTGCCTGAAGCTTCGGC  
CGCGCCACCCGGGCAAGGGTCTCTTTTCTGGCAGCTGCTGTGGGTGGGGCCCAGACACCAGCCTAGCCTGGCT  
CTGCCCCGACAGCGGTCTGTGTGCTGTTTGAAAATAAATCTTAGTGTTCAAAACAAAATGAAACAAAAAAAAT  
GATAAAACTTTTCAG

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**FIGURE 916**

MAEMGSKGVTAGKIASNVQKKLTRAQEKVLQKLGKADETKDEQFEQCVQNFNKQLTEGTRLQKDLRITYLASVKAM  
HEASKKLNELQEVYEPDWPGRDEANKIAENNDLLWMDYHQKLVDQALLTMDTYLGQFPDIKSRIAKRGRKLVY  
DSARHHYESLQTAKKKDEAKIAKAEELIKAQKVFEEMNVDLQEELPSLWNSRVGFYVNTFQSIAGLEENFHKEM  
SKLNQNLNDVLVGLEKQHGSNTFTVKAQPSDNAPAKGNKSPSPDGSPAATPEIRVNHEPEPAGGATPGATLPKS  
PSQLRKGPFPVPPPKHTPSKEVKQEILSLFEDTFVPEISVTTPSQPAEASEVAGGTQPAAGAQEPGETAASEAA  
SSSLPAVVVETFPATVNGTVEGGSGAGRLDLPFGFMFKVQAQHDYTATDTDELQKAGDVVLVIPFQNPPEEQDEG  
WLMGVKESDWNQHKELEKCRGVFPENFTERV

**FIGURE 917**

AAAGCAGAATTGAGAGTTTGTCTTACACACAAGTTTAAATGCCACCTTCCTCTGTCTGCCATGGACCAACAAGCA  
ATATATGCTGAGTTAAACTTACCCACAGACTCAGGCCCAGAAAGTTCTTCACCTTCATCTCTTCCTCGGGATGTC  
TGTCAGGGTTCACCTTGGCATCAATTTGCCCTGAAACTTAGCTGTGCTGGGATTATTCTCCTTGTCTTGTTGTT  
ACTGGGTTGAGTGTTTCAGTGACATCCTTAATACAGAAATCATCAATAGAAAAATGCAGTGTGGACATTCAACAG  
AGCAGGAATAAAACAACAGAGAGACCGGGTCTCTTAAACTGCCCAATATATTGGCAGCAACTCCGAGAGAAATGC  
TTGTTATTTTCTCACACTGTCAACCCTTGGGAATAACAGTCTAGCTGATTGTTCCACCAAAGAATCCAGCCTGCTG  
CTTATTCGAGATAAGGATGAATTGATACACACACAGAACCTGATACGTGACAAAGCAATTCTGTTTTGGATTGGA  
TTAAATTTTTCATTATCAGAAAAGAACTGGAAGTGGATAAACGGCTCTTTTTTAAATTCTAATGACTTAGAAATT  
AGAGGTGATGCTAAAGAAAACAGCTGTATTTCCATCTCACAGACATCTGTGTATTCTGAGTACTGTAGTACAGAA  
ATCAGATGGATCTGCCAAAAAGAACTAACACCTGTGAGAAATAAAGTGTATCCTGACTCTTGA



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**FIGURE 918**

MDQQAIYAELNLPTDSGPESSSPSSLPRDVCQGSPWHQFALKLSCAGIILLVLVVTGLSVSVTSLIQSSIEKCS  
VDIQQSRNKTTTERPGLNCPYQQLREKCLLFSTVNPWNNSLADCSTKESLLLIRDKDELIHTQNLIRDKAI  
LFWIGLNFSLSEKNWKWINGSFLNSNDLEIRGDAKENSISISQTSVYSEYCSSTEIRWICQKELTPVRNKVYPDS

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**FIGURE 919**

ATGACCATGGAAACAGTTGAATCCCAGCATGATGGAAGTATAACAGCTTCTTTGACAGAGAGCAAGTCTGCTCAT  
GTGCAGACTCAGACTGGGCAAATTTCAATCCCTGCTTTAGCTCAGTGCAGTGAGCTGAGATCAGGCACCAGAAGA  
GGCTCCCCAGCTGTAACCTAGTGCAGTTACCTTCGGGCCAACTATACATGTCCAGGGAGTAATTCAGACACCA  
CAGCCATGGGTTATTTCAGTCATCAGAAATACACACCGTTCAGGTAGCAGCAATTGCAGAGACAGATGAATCTGCA  
GAATCAGAAGGTGTAATTGATTCTCATAAACGTAGAGAAATCCTTTCACGAAGACCCTCTTATAGGAAAATACTG  
AATGAACTGTCCTCTGATGTGCCTGGTGTTCCTCAAGATTGAAGAAGAGAGATCAGAGGAAGAAGGAACACCACCT  
AGTATTGCTACCATGGCAGTACCAACTAGCATATATCAGACTAGCACGGGGCAATACATTGCTATAGCCCCAAGGT  
GGAACAATCCAGATTTCTAACCCAGGATCTGATGGTGTTCAGGGACTGCAGGCATTAACAATGACAAATTCAGGA  
GCTCCTCCACCAGGTGCTACAATTGTACAGTACGCAGCACAAATCAGCTGATGGCACACAGCAGTTCTTTGTCCCA  
GGCAGCCAGGTTGTTGTTCAAGCTGCCACTGGTGACATGCCAACTTACCAGATCCGAGCTCCTACTGCTGCTTTG  
CCACAGGGAGTGGTGATGGCTGCATCGCCCGGAAGTTTGCACAGTCCCCAGCAGCTGGCAGAAGAAGCAACACGC  
AAACGAGAGCTGAGGCTAATGAAAAACAGAGAAGCTGCCCGGGAGTGTCGCAGGAAGAAGAAAGAATATGTCAAA  
TGTCTTGAAAATCGTGTGGCTGTGCTTGAAAACCAAAACAAGACTCTCATTGAGGAAGTCAAGGCCCTCAAAGAT  
CTTTATTGCCATAAAGTAGAGTAACTGTCTTTGACTTGGACCTTGTTTACTCTAATCAAGGCAGGAGATGCAGCA  
GTCCTACTTATTGCCATGTGGACTTGTGGGAAGGACACGTGTGACCCTTAAGAATCCAGTTTGGATTAGTGTGTTG  
AAATTGAATTGGGAATGTTGTTCCAGGATGTGGAATGCAGCGTGATCACACTTACCGAGCTTACTTTGATCTGTT  
TGTC AATAGCATGCAAAAAATGCTTTGTTTGCCCTTTGCTTCTGCTTTTTTTTCAGGGAAGCTGCCAAAGAATGTC  
GACGTCGAAAGAAAGAATATGTAAAATGCCTGGAGAGCCGAGTTGCAGTGCTGGAAGTCCAGAACAAGAAGCTTA  
TAGAGGAAGTTGAAACCTTGAAAGACATTTGTTCTCCCAAACTGATTACTAGAAATATTTAACTATGAACTGAT  
TACAGA

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**FIGURE 920**

MAVTGDETDEETDLAPSHMAAATGDMPTYQIRAPTTALPQGVVMAASPGSLHSPQQLAEEATRKRELRLMKNREA  
AKECRRRKKEYVKCLESRVAVLEVQNKKLIEELETLDICSPKTD

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**FIGURE 921**

ATGGACTTCTCATCCTGGCCCTCCTTGGCATCTGCTCTCTCACTGCATACATTGTGGAAGGTGTAGGGAGTGAA  
GTCTCACATAGGAGGACCTGTGTGAGCCTCACTACCCAGCGACTGCCAGTTAGCAGAATCAAGACCTACACCATC  
ACGGAAGGCTCCTTGAGAGCAGTAATTTTTATTACCAAACGTGGCCTAAAAGTCTGTGCTGATCCACAAGCCACG  
TGGGTGAGAGACGTGGTCAGGAGCATGGACAGGAAATCCAACACCAGAAATAACATGATCCAGACCAAGCCAACA  
GGAACCCAGCAATCGACCAATACAGCTGTGACCCTGACTGGCTAG

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**FIGURE 922**

MRLILALLGICSLTAYIVEGVGSEVSHRRTCVSLTTQRLPVSRIKTYTITEGSLRAVIFITKRGLKVCADPQAT  
WVRDVVRSMRKSNTNRNMIQTKPTGTQQSTNTAVTLTG

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**FIGURE 923**

CACGTGGCTGCAGCGGGGCCAGAGCAGCAATGGCGGCGGGCGGCGGCGGTAGCTGCGACCCCCTGGCCCCCTGCTG  
GGGTCCCTTTCGCTTCTCCCCGCACAGCCAGGCCTACTTCGCTTTGGCCTCTACCGACGGTCACCTTACGAGTAT  
GGGAGACGGCCAACAACCGGCTGCACCAGGAGTACGTGCCTTCCGCGCACCTCAGTGGTACCTGCACCTGTCTGG  
CCTGGGCGCCAGCGCGGCTGCAGGCCAAGGAAAGTCCCCAGAGGAAAAAAGGAAATCAGAAGCTGTAGGAATGA  
GTAACCAGACTGACTTATTGGCTCTTGGCACAGCAGTTGGTAGCATTTTATTATACAGCACAGTAAAAGGAGAGT  
TACACAGTAAATTAATAAGTGGTGGACATGACAACAGAGTCAACTGCATACAGTGGCATCAAGACAGTGGCTGTT  
TATATAGTTGTTTCAGATGATAAACATATTGTGGAATGGAACGTACAGACATGCAAAGTAAAGTGCAAATGGAAAG  
GGGACAATAGCAGTGTCAAGTTCCTATGTATCAGCCCAGATGGAAAGATGTTGCTTTTCAGCTGGTTCGAACAATCA  
AACTATGGGTTTTTGGAGACCAAAGAAGTCTACAGGCATTTTCAGGACATGCAACGCCAGTTTTCGTCACTGATGT  
TCACTACCATCAGACCTCCTAATGAGAGCCAGCCCTTTGATGGAATTACAGGTCTTTATTTCTTATCTGGAGCAG  
TACATGACCGGTTACTTAATGTCTGGCAGGTCCGATCAGAAAACAAAGAAAAGAGTGCAGTGTATGTCATTTACAG  
TTACCGATGAACCTGTCTATATTGACTTAACCTTTGTTCAGAAAACAAAGAGCCCTGTCAAGTTGGCTGTTGTTT  
GCAGAGATGGTCAAGTCCATCTTTTTGAACACATATTAAATGGGTACTGCAAAAAGCCTTTGACTTCAAACCTGCA  
CAATTCAGATAGCAACACCTGGGAAAGGCAAGAAGTCAACACCAAAACCCATCCCTATTCTAGCTGCTGGTTTTT  
GCTCAGACAAAATGTCATTGTTGCTTGTATATGGCAGTTGGTTTCAGCCTACTATTGAGCGAGTGGCTTTAAACT  
CCAGAGAACCTCATATGTGTTTAGTAAGAGATATTTCAAACCTGCTGGGCCCCCAAAGTAGAAACAGCTATAACAA  
AGGTGAGGACACCAGTGTGAATTCTGAAGCAAAAGTTCTGGTGCCTGGGATTCCTGGTCATCATGCAGCTATCA  
AGCCCGCTCCTCCACAAACCGAGCAAGTAGAGAGCAAGAGGAAGTCAGGGGGAATGAGGTTAGCATTGAAGAAC  
GTCTGGGAGCAATGGATATAGACACACACAAAAAGGAAAGGAAGACCTCCAGACGAATAGCTTTCCAGTTCTTC  
TTACCCAGGGCTTAGAAAGTAACGATTTTGAATGCTAAATAAAGTACTTCAAACCTAGGAATGTAAACCTTATAA  
AGAAGACTGTATTAAGGATGCCCTGCATACTATTATTCCGTTGTTACAAGAGCTTACAAGAGGTTACAAGGAC  
ATCCTAATAGTGCTGTGCTAATGGTTTCAGTGGCTAAAATGTGTGTTAACAGTTCATGCATCATACCTGTCCACGT  
TGCCTGACCTGGTACCCAGCTGGGGACACTCTACCAGTTAATGGAAAGCAGAGTCAAAACCTTTTCAGAACTTT  
CACACCTTCATGGAAGCTTATTCTTCTAATTACACAAGTAACAGCATCAGAGAAGACAAAGGGAGCAACTTCCC  
CTGGACAGAAGGCAAAGTTGGTGTATGAAGAAGAGTCTTCTGAAGAGGAGTCTGATGATGAAATAGCAGATAAGG  
ATTCTGAAGATAATTGGGATGAAGATGAGGAGGAGAGTGAAAGTGAAAAAGATGAGGACGTTGAAGAGGAAGATG  
AGGATGCCGAAGGAAAAGATGAAGAAAATGGCGAGGACAGAGATACAGCAAGTGAAAAAGAATTAAATGGAGATT  
CTGACTTAGATCCTGAAAATGAAAGTGAAGAAGAAATGAAGACAGCAAAAGCAAGCCGCTCAAACCTATATAAACTCT  
GGCTCACCTTGCCAGTGGTGAGGGCTGCCTCTGTGCCAGGATGCCAAGGACCGCTGCACATTTCCAAATTCACA  
GCAGTGGATCCCATGCCACTTTGCTGTCTGAGCACCCAGACTTGACTGTGTAAATAAGAGTGTTTCATTCAA  
TGTTAATAAACTTTACACAGTATATAGACACATTTTCTGCAATGTACTGACATCAGTGTCCAATATATGGTATAT  
TTTTATAATATAATATCCTAGTATGATTGGTTATATCAAGAATTGACAAGTGCAGATAAAGACCTTTCCCATAGG  
AGTTCAAGAACTGGACTGTTGTGAAGAAGTCAGCTCTTATCTCAGGTTGGTATCTTTTCATCAAATCCAGATGCAA  
AGCAGCACTAGTGAAAATTTTTTAAATTTAGTACATTTAATTTGGTACATTTTTCATAAAATATGAAGGGATAACT  
ACAACTGGAGTAAAAATGATGGTAATTAATAAAAAATCCTCAGTATCCCTAGCTTGTCTATTAACTGTGATAATC  
TGACTTGAGTCAGATTGAATATTTGGAGTGCTTCCCCAGAATAACCACTTATTTTGAAGCTATCATGTGAAGTA  
TTTTTTTAAAAACAAAACAAAATATGGTCATTAAAAAACTAGAGAATTAGCCATATTAAGGATTTTCTTGACT  
GCAAATTACTTCTAAAGAATCATCAGTGTATAGATTAGAAGTGCTCATTACCTGCAACTTTTAAAAAAATTCAG  
TTATAGCTGCTTTTGAAGAGGTTTCCATTTTTATTTAAATTACTAATGGATCAAAGAACAATTGTTTATTTTTTC  
TCTTTGGTTTTTAGATATTAATGATAACCTTGTTGGAATTTTTTTTCCAAAGAAAATATTTTTATAATTAATAAT  
TTAATGTTTTTCTTCTTTTTCATTACCTACTCTTGGCAGTGTTAGGGTATCTGTTTACCTTTAAATGATAAGTC  
TCACTCAAGATTTTTTATCTATGTATAAATATTTTGGTGTGCTACAAAAGCCTTTACAAATTATCAGTAGTAGTT  
TTTTTTTTTTTTTTTTTTTTTTTTTAAAGAATGAGCCGATATTGGCTTAGTGCTCACTAGGGGACATGCACATGGAAGC  
TCACCTCTAAGAAAGGGCTGGGCAGATGGATTTATTTTTTCCCACCTGTGAATATGTAAAACAAAACCATATCT  
TTGAGGGAGTTTTTAATACCAATGACAGAACAGAGATTTGTGTGCTCATCTTAAGAGCCAGAGCCATATAAGCAT  
CTTGGGAAAGCAAGTTTGAACCAGCTGCTGGTGAATGTACAGTTATATTTGTCTATAAATGGAGCTGTTTATGG  
CAATTTAATACCATTCTCTTTGTAAAGTGAATAAATATTCATCTTTTCCC

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**FIGURE 924**

RGCSGARAAMAAGGGGSCDPLAPAGVPCAFSPHSQAYFALASTDGHLRVWETANNRLHQEYVPSAHLSGTCTCLA  
WAPARLQAKESPQRKKRKSEAVGMSNQTDLLALGTAVGSILLYSTVKGELHSLISGGHDNRVNCIQWHQDSGCL  
YSCSDDKHIVEWNVQTCKVKCKWKGDNSSVSSLCISPDGKMLLSAGRTIKLWVLETKEVYRHFTGHATPVSSLMF  
TTIRPPNESQPFDGITGLYFLSGAVHDRLLNVWQVRSENKEKSAVMSFTVTDEFVYIDLTLSENKEEPVKLAVVC  
RDGQVHLFEHILNGYCKKPLTSNCTIQIATPGKGKKSTPKPIPIAAGFCSDKMSLLLVYGSWFQPTIERVALNS  
REPHMCLVRDISNCWAPKVETAITKV RTPVMNSEAKVLVPGIPGHAAIKPAPPQTEQVESKRKSGGNEVSIER  
LGAMDIDTHKKGKEDLQNSFPVLLTQGLSNDFEMLNKVLQTRNVNLIKKTVLRMPLHTIIPLLQELTKRLQGH  
PNSAVLMVQWLKCVLTVHASYLSTLPDLVPQLGTLYQLMESRVKTFQKLSHLHGKLILLITQVTASEKTKGATSP  
GQKAKLVYEEESSEESDDEIADKDSEDNWEDEEESESEKDEDVEEEDEDAEGKDEENGEDRDTASEKELNGDS  
DLDPENESEEE

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**FIGURE 925**

GCCACTTGCAGTGATGTTTTGTTCTTCCCTAGCTCCTGCAGATACCTAAAGATAGTCCATAATCTTTTTGGGTCT  
CACTTCTGCAAATTGGAGTTCATACTTGCCTATCTTTTGTGAAGAACCCTCAAGATAGTTGCAAAAAGTATTT  
TGAAAAGTATAAAGTGATGGGTTTAATGTAAATGTTTTATTCAATACTACTATCCTCTAGACTAATTTGGTTGTA  
GTTACATTACAGTAGCTGCTTCGTAAGTGATTTTTG



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**FIGURE 926**

ATCSDVLFFPSSCRYLKIVHNLFQSHFCKLEFILALSFVEEPSR

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**FIGURE 927**

GAATCTCTTTCTCTCCCTTCAGAATCTTATCTTGGCTTTGGATCTTAGAAGAGAATCACTAACCAGAGACGAGAC  
TCAGTGAGTGAGCAGGTGTTTTGGACAATGGACTGGTTGAGCCCATCCCTATTATAAAA**ATGT**CTCAGAGCAACC  
GGGAGCTGGTGGTTGACTTTCTCTCCTACAAGCTTTCCAGAAAGGATACAGCTGGAGTCAGTTTAGTGATGTGG  
AAGAGAACAGGACTGAGGCCCCAGAAGGGACTGAATCGGAGATGGAGACCCCCAGTGCCATCAATGGCAACCCAT  
CCTGGCACCTGGCAGACAGCCCCGCGGTGAATGGAGCCACTGCGCACAGCAGCAGTTTGGATGCCCCGGGAGGTGA  
TCCCCATGGCAGCAGTAAAGCAAGCGCTGAGGGAGGCAGGCGACGAGTTTGAAGTACGGTACCGGCGGGCATTCA  
GTGACCTGACATCCCAGCTCCACATCACCCAGGGACAGCATATCAGAGCTTTGAACAGGTAGTGAATGAAGTCT  
TCCGGGATGGGGTAAACTGGGGTCGCATTGTGGCCTTTTTCTCCTTCGGCGGGGCACTGTGCGTGGAAGCGTAG  
ACAAGGAGATGCAGGTATTGGTGAGTCGGATCGCAGCTTGGATGGCCACTTACCTGAATGACCACCTAGAGCCTT  
GGATCCAGGAGAACGGCGGGCTGGGATACTTTGTGGAACTCTATGGGAACAATGCAGCAGCCGAGAGCCGAAAGG  
GCCAGGAACGCTTCAACCGCTGGTTCTGACGGGCATGACTGTGGCCGGCGTGTTCTGCTGGGCTCACTCTTCA  
GTCGGAA**TGA**ACCAGACACTGACCATCCACTCTACCCCTCCACCCCTTCTCTGCTCCACCACATCCTCCGTCCA  
GCCGCCATTGCCACCAGGAGAACCCG

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**FIGURE 928**

MSQSNRELVVDFLSYKLSQKGYSWSQFSDVEENRTEAPEGTESEMETPSAINGNPSWHLADSPAVNGATAHSSSL  
DAREVIPMAAVKQALREAGDEFELRYRRAFSDLTSQLHITPGTAYQSFEQVVNELFRDGVNWGRIVAFFSFGGAL  
CVESVDKEMQVLVSRIAAMATYLNHLEPWIQENGGWDTFVELYGNNAAAESRKGQERFNRWFLTGMTVAGVVL  
LGSLSRK

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**FIGURE 929**

CGCCTCTTCACGGCACTGGGATCCGCACTGCCTGGGATCATCAAGCCCTAGAAGCTGGGTTTCTTTAAATTAGG  
GCTGCCGTTTTCTGTTTTCTCCCTGGGCTGCGGAAAGCCAGAAGATTTTATCTAGCTTATACAAGGCTGCTGGTGT  
TCCCTCTTTTTTCCACGAGGGTGTTTTTGGCTGCAATTGCATGAAATCCCAATGGTGTAGACCAGTGGCGATGG  
ATCTAGGAGTTTACCAACTGAGACATTTTTCAATTTCTTTCTTGTCTCCTTGCTGGGGACTGAAAACGCTTCTG  
TGAGACTTGATAATAGCTCCTCTGGTGCAAGTGTGGTAGCTATTGACAACAAAATCGAGCAAGCTATGGATCTAG  
TGAAAAGCCATTTGATGTATGCGGTCAGAGAAGAAGTGGAGGTCCTCAAAGAGCAAATCAAAGAACTAATAGAGA  
AAAATTCCCAGCTGGAGCAGGAGAACAATCTGCTGAAGACACTGGCCAGTCCTGAGCAGCTTGCCCAGTTTCAGG  
CCCAGCTGCAGACTGGCTCCCCCCTGCCACCACCCAGCCACAGGGCACCACACAGCCCCCGCCCAGCCAGCAT  
CGCAGGGGCTCAGGACCAACCGCATAGCTGCCTATGCCCCCGAGAAGTGGCTGCTGCGTGTGAACTGAACAGACG  
GAGAAGATGTGCTAGGGAGAATCTGCCTCCACAGTCACCCATTTCATTGCTCGCTGCGAAAGAGACGTGAGACTG  
ACATATGCCATTATCTCTTTTTCCAGTATTAAACACTCATATGCTTATGGCTTGGAGAAATTTCTTAGTTGGGTGA  
ATTAAAGGTTAATCCGAGAATTAGCATGGATATACCGGGACCTCATGCAGCTTGGCAGATATCTGAGAAATGGTT  
TAATTCATGCTCAGGAGCTGTGTGCCTTTCCATCCCTTCCGGCTCCCTACCCCTCACTTCCAAGGGTTCTCTCTC  
CTGCTTGCCTTAGTGTCTACATGGGGTTGTGAAGCGATGGAGCTCCTCACTGGACTCGCCTCTCTCCTCTCCT  
CCCCCAGGAGGAAC TTGAAAGGAGGGTAAAAAGACTAAATGAGGGGGAACAGAGTTCACTGTACAAATTTGAC  
AACTGTCACCAAAATTCATAAAAAACAATAGTACTGTGCCTCTTTCTTCTCAAACAATGGATGACACAAAACAT  
GAGAGTGACAAATGGTGACAGGTAGCTGGGACCTAGGCTATCTTACCATGAAGGTTGTTTTGCTTATTGTATAT  
TTGTGTATGTAGTGTAACTATTTGTACAATAGAGGACTGTAATACTATTTAGGTTGTACAGATTGAAATTTAG  
TTGTTTCATTGGCTGTCTGAGGAGGTGTGGACTTTTATATATAGATCTACATAAAAAC TGCTACATGACAAAAAC  
CACACCTAAACCCCTTTTAAGAATTTGGCACAGTTACTCACTTTGTGTAATCTGAAATCTAGCTGCTGAATACGC  
TGAAGTAAATCCTTGTTCACTGAAGTCTTTCAATTGAGCTGGTTGAATACTTTGAAAAATGCTCAGTTCTAACTA  
ATGAAATGGATTTCCAGTAGGGGTTTCTGCATATCACCTGTATAGTAGTTATATGCATATGTTTCTGTGCATGT  
TCTCTACACAATTGTAAGGTGTCACTGTATTTAACTGTTGCACTTGTCAACTTTCAATAAAGCATATAAATGTTG

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**FIGURE 930**

MKSQWCRPVAMDLGVYQLRHFSISFLSSLLGTENASVRLDNSSSGASVVAIDNKIEQAMD LVKSHLMYAVREEVE  
VLKEQIKELIEKNSQLEQENLLKTLASPEQLAQFQAQLQTGSPPTTQPQGTTPPAQPASQSGPTA

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**FIGURE 931**

CAGAGGCAGGGAAAACACGCAGAAGCAGGAGCTGAAGACCTCAGACCGGCACCAGGACAGCTTAATGAAGACAA  
ACTGAAGGGGAACTGAGATCCTTAGAAAACCAGCTATACACCTGTACCCAGAAATACTCCCCTTGGGGAATGAA  
AAAAGTACTACTGGAGATGGAAGACCAGAAAAACAGCTATGAGCAGAAGGCCAAGGAGTCACTGCAGAAAGTGCT  
GGAGGAGAAAAATGAATGCAGAGCAGCAACTACAGAGCACACAGGTATGGGGATGCCACATAGACATGGGGCTGGG  
GACTCCAGGCAGCTTGGGGAACAAGGGGAGCCAGCTGCACAACCTCCCTGGAGCCCTCTCCTCTCTTGATCTCCCTC  
AGCGATCCCTGGCCCTGGCAGAGCAGAAGTGTGAAGAGTGGAGGAGCCAGTATGAGGCTCTGAAGGAGGACTGGA  
GGACCCCTTGGGACCCAGCACAGGGAGCTGGAGAGCCAACTCCACGTGCTTCAGTCCAACTGCAGGTACCAGGCA  
CTGGGGGTGGGGAGGGAAGACAGGGTATGGGGAGGAGGGATGGTGATGAAAGAAGCTGTTCTGGATTAGGGACTC  
CAAAGGCAGCTGACAGCATCTGGCTTTTCAGTTCTCAGTCAACCACTACTTTGTACCAAATTCAGTGTCTTGGCTC  
TGAAATCTAATTTTGAGTTTAGCAAGGATGTCTGCATTGCTCATGCAAACTGAAGTAAAGCGTTCATTGGAATGACA  
CCATCACCACCCAAATGAAAAGAACTGGCTGGAATATTATCATCAGCCTACTAATGTCTCTCCCAACCCACTCTCC  
AAACTCCATCCCAAAAAAGCATCCAGTTTCAAGATTGCCCCTGTTGGCAAAGAAAGAATGTCTACTAATTTATTTA  
CAGGTGAGTATTAACACTTTCTGCCAATGTGTATTTTAAGCAATTACATTTAGCAATTACAATTAGATTCTTGGC  
ATCCTCAAGGGTTCATCATCTTCAATCTGTCTTAAGCCTCAGTTTCCCCATCTCTAGAATGAGGATAATAGTA  
CCTACATCATAAGGTGGCTCTGAGTATTAAGTAAGATGATCCATGTCAAGCACTTAGCACAAATGCCTGGCACACA  
AAAACACTCAGTAAATATTAGCTATTATTTTGCATAGATTTATTTACCTGGTTTGGAATTTTGAGGATCCACCTC  
AAAAGCTGATCTTTGTAATTTTCTGAAGCAGGGCTCAGAACAGCCACTTGATAAGAGACAGAGTATGTGAGTC  
TTATCAAAGGAGTGAACCCAGCTGGTCACTCTGCGTGGTATCCACAGCTCAACCTTTGTTGTTTTCTTCTTCCCCA  
TCACCTATAAGGCAACTCCTATGAAGATTTTGTGAGGGGTTTTTTAACTTTAAATCTTTGTGGAAAAAAAAGA  
CCCTAACCAAAAAAAACTGATACTGCCAGAAGTAGAAAAAAGAGAAAATGAAAACATCCAGAAAATAATGACT  
TTGTATTCTTAATTTGGTGATTTACCAAAGTGTCAAGACATGACTCCACACCAATGACAACCACTTACATTTT  
CCCTAGAATGGCAGATTTTTTAACGTACTGGGTTTCTTAAAGCAATTCTTATTTTATATATTCTAATTTATGTAC  
ATGAATGTGTCACTTAGACCTGTCACTAGGGATGGTTTAGAAAATAAACTTACACTGCACATGCCTCAGTCCACT  
TCAAACTNN  
NN  
NNNNNNNNNNNNNNNNNNNNNAGACGCGAGTTTCTTGTGAATATCAAAGTCTAATCTGCTGTTATAAATATGAGGA  
ACAAAGCAAAGGGAAGAAATAGGAAAAAAGAAAGACTTCTCTATTTTCTCATCTCCCTAACATTCTTCTATCTC  
TAAAATTCCAGACTTTTCTACATTTTCTCTTCCATGGTACCCGCCCCCAACCTCCACCCCAACACTGACCATC  
CTTCTATATTGGCCCCTCTCTCTCTTACAGGGAGCAGATAGCAGGGACTTACAGATGAACCAGGCCCTGCGATT  
TTTGGAATATGAGCACCAGGAAGTGCAGGCCAAGATTGAATGCCTGCAAGGGGACAGAGACCTGTGCAGCTTGGA  
TACCCAGGACCTACAAGGTACTCTTCTCTTGGAGGCCCTTGAGTGCATGGCAGCCATGGCCAAGTGAGCTAAGAA  
AAAAGAACTGAATTAAGAGAAAGGCTTACGCTTTTATTTGTTTGCTTGATTGGTTGATTGGCTTTATAATCTC  
ATTTTACCTTGAGGGAGAGGCAGGACTGTTTTAATCATCCAAAATTGAAAATTAATTTCACTGTAGTAGATAGAG  
TATCTTGTGTCTGAGCTCTCTTTTTTAGCCCATCCCTCTGGGCCAGATCACAGCTGCTCCACATCAGTCACAT  
ATGTCAAGGCCACAGTCCTAATTTGAAAGGGAAAGGTGAGTTGAAACACAAGGCATAGAGAAAGTCTCTCAGTCA  
CATCTCTGTGTCCGCTGATAGAGAGGACTAGATAGTGTGTAAACACAAGCCTCAATGCAACCAACATTGTTGA  
TGCACAAAAACCTGAGGTACTTGGCTTCTGGTTTACCTCTTCAGAACTGGGACACGAAGATAGAGCAACTTCCAA  
TAGACACACGTTAAAGACCATGACAAGACAGCATCTATTACTAATTTCCATCCTAAGTACTGAGTTTATTAAAGTC  
TTGGGTTCTTTATTTTGGCTTGCAATTATTGCATTTTCAGATCAACTAAAAAGGTGAGAGGCAGAGAACTCACC  
CTGGTGACCAGAGTACAGCAGTTGCAGGGTTTGCTTCAAAATCAATCCTTACAGCTTCAAGAACAGGAGAACTC  
TTAACAAAGAAAGGTGAGCAATTTATTACCACAAATTTAAGATATTGCTCTTCTCTTACCTGCCTAGAGGCAG  
CGGGATGGACTACATGACCTCCTGGAGTCCCAGCCAGTTCTGGGAGTCTGTTAAGTCCGGGATGTGTGGGAGCTT  
TTAAGGACTGATCATTGGCTCTGAGGACACTTCAACTAGTTAGCCTTCTATCTTGAGGTATATAAACTGTGAAA  
AGGGTTCTATTCTCTCTGAAAGCACATGTCT

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**FIGURE 932**

RGRENHAEAGAEDLRPAPGQLNEDKLKGKLRSLNQLYTCTQKYSWGMKKVLLEMEDQNSYEQKAKESLQKVL  
EEKMNAEQQLQSTQVWGCHIDMGLGTPGSLGNKGSQLHNSLEPSPL

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**FIGURE 933**

GTTGGAAATAACTATAACTTAAAGCAAATCTAACCCAGTAAGCTATCAAAAAGAAAAATTATATAATTACCAAGT  
 AGAGTTAATTTACCTGAGTTCTATGAACATATTCATTATTAAAGGAAACCTCAAATTATTGTCCCATTGGAAGC  
 AAAATATACATTTATAAATAGCCATTTCTCGTTTTAAAAAACTAATAACATTGAAATAAACAGAACTTAAGCTC  
 TTCTAGTTTGCCAAAACAGAAAGCAAACATCATATACTAAATGATGAAATGCCAAAGCCATTTCCATTATATC  
 AGAAACGAGACTAATACTTCCTGTCATCATTTACATGATTGTCACTATTATTAAGCATTGTTTTGGTAGTTCTAG  
 CCATTGCAGTAAGACAGTAGACAGAAAGTCAAATAATTGGCATAAATATTGGAAACAAAAAATTATTTCTACTTT  
 GAAATGATACAATAGAAATAGCTGGAAAGCCCAGGGGACTCTAGTAGAAAACAGCAATGAGGATTAAATGTAAGA  
 CACTTTGGAAAGCTGATGTGTGAGAAATGTACACAACTAATAGCTTTCTCTTTATTAGTAGTCATCAGTTGAAA  
 ATGGAAATGACCAAGCAAAAATATTCAACAGAATGACAAAATATTGGTTACACCTAGGAATAAATGTGTTAAAG  
 AAAGGTACAGAGTGAAGGTAATGACCCTTATGAAGAAAATTTGATATTATAAAAAAGTAGTCCTTTTCTCCCTCAG  
 TTTTTGTCTTCAAAATGTTTACTTGGGACAGATCGTGGTTTACATGATGGTCCTCAAACATATTGTGAACAACAT  
 TAAAAAAGACACATTTTACTCAATAAGTAACATTTTTTGGAGAAGCTACTATGTGCTAGGGACCTAGTTTTT  
 AGTGCAGTGGTCTCCAAAATAATGTACTGGCAGTATGGGAAGAGCGTTTAGAACACTGTACCTTTTTATTGGGA  
 GGAGAAAAGAAACCTTTGTCAAATATTTAACACCTGCTGCCAGAGGTCTGTAGATTTGATGATTGTGTGCCATGA  
 GTTACACACAGACTCCTAAATCAGTTTCACCTGTGGTGTCTCATTCTGTTTACTTTGAGCATTTTGCATTCTAT  
 ATCTGCTTAGTTATATGGATTTATTCGTCCCATATAATATGTGTAGCCACATGGACACATGTTTTAAAGGTTTT  
 AAATTCTGCAAGATAGTGACGATGATGTAAACACAAGAAAAGGGCAAATGGATACATTTTCTACTCTGTGCTCA  
 TCAAACATATTACAGGATAAAATTATTGGCTATCTAATAAAAACACAGACTAATAAGACCTGATAAGTTGGACAA  
 AATGTTTTAAAAATTAACATGAAGATGATAGGAAGTATGAATCTATATTCAGTGTCAATAATGTCAAACCTTTACC  
 TTATGGTATATTGTACTTTGAGAAATTA



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**FIGURE 934**

MSNLYLMVYCTLRN

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**FIGURE 935A**

AAAATTGCGTTTGTAGTTTGCCGCGAGCCGGGCCAATCGGTTTTGCCAACGCATGCCACGTGCTGGCGAACAAAT  
 GTAAACACGGAGATCGTGTGCCGGGCACCTTGGTTTTCTGGTGGGCAACTGTGCTGCTGTTTTCTTTTGGCCGCGGA  
 CAAGGTCGGCAGAGGTGGACCCCTGCTTGGGAGAGCTCTTCTCGCTGTGCTGACACCCGCCCTAACAGTCACCC  
 ACCCCGGGGAAATAATGGGGCTCGGAGGCCTCCTCCCAGCCAGTGTCCAGCCTAAGCACATCGGCTCCCGCAGTT  
 CAGAAAGTCCCGAGGCCCGAGTCACCATTTCCGGCTCAGACCTCGACCCGGAACGTGGCTGCCCCACTGCCACGC  
 CCACTACGCCCCAGTGGCTCGCCCCAGGGGACGAGGGGCAAGAAGCGGCCTCCGAGGGCAGCGGCCGAAGGCCAT  
 TCGGTCCCCTGGCTCTTCCCAGCTCGCAGAGACCCGGAAGCGCTGCCCGGCCGCTGCCCTCTTCAGATCCCCCA  
 GCACCGGAGGAGCAGCGAGGGGGCTGCGTCCAGGCCGGCTTTCGGGTTCGGCTTAGGCGAATCCAGCTCTCTTTTG  
 CCCCTCCCAGAAGGCCAGCCCCGTCCGGGCGGTGTTCCGGGCGGCGCCGGGCCGGGCCCCCGCCGCCCCAGGCT  
 CGCTCATAGGCCCGGAACACCACAGCCCGCCAGACTTGGCTGGCGCCGAGCCGGGGGTGGAGCCAGCGGGTTCC  
 CGCCAAAATCGCGTAGCTGGTCCTTCCCCCGGGGCTACGTGCGGCCCTCCTTTTTTTTTTCAAACCCGGAGCTGC  
 ACTGGGATTGGTGGACTGGGCACTCACGTGGTTAACGGTCGCGGGAAGCCGCGGAGCCCGAACCTGAGACTGGAC  
 CTGAGGAGACCTCAGCCTCGGTGCTCGGGCCGCCCGCCTCTGCCGGAAGTCCGCGCCGCCGCTGCCGCCACCG  
 TCCGCAGCCCGAGCGCCCCGAGCCGCGAGGCCGCCCGCGCAGAGACGCCGCGGCTGCGACTAGGCGCGCCAG  
 CCGCACGTGGCGGACCCGCCCGAGGCCCGCAGTGTCTGGACCCCGCAGGCCTCCGCTCTCCTGTCTCGGCCC  
 CGTCCCAGGGCCGCGATGAGCTTCTGAGCCGACAGCAGCCGCCGCCACCCGCCGCGCCGGGGCGGCCTGCAC  
 CTTGCGGCAGAAGCTGATCTTCTCGCCCTGCAGCGACTGTGAGGAGGAGGAAGAAGAGGAGGAGGAGGAGGGCAG  
 CGGCCACAGCACCGGGGAGGACTCGGCCTTTCAAGAGCCCGACTCGCCGCTGCCGCCCGCGCGGAGCCCCACGGA  
 GCCCCGGGCCGAGCGCCGCCGCTCGCCCGGGCGGCCCGGGAGCCCCGGCGAGCTGGAGGAGGACCTGTTGCT  
 GCCCCGGCGCTGCCCGGGCGCGGACGAGGCGGGCGGTGGGGCGGAGGGCGACTCGTGGGAGGAGGAGGGCTTCGG  
 CTCTCGTTCGCCGGTCAAGTCGCCGGCGGCCCTACTTCTGGGTAGCTCTTCTCGCCGGTGCCTGCGGCGG  
 CCCAGGAGATGCGTCGCCGCGGGGTTGCGGGGCGCGCGGGCGGGCGAAGGCCGCCGCTCGCCGCGGCCGACCA  
 CCCGGGCACCCGCCACACAAGACCTTCCGCAAGCTGCGACTCTTCGACACCCCGCACACGCCCAAGAGTTTGCT  
 CTCCAAAGCTCGGGGAATTGATTCCAGCTCTGTTAAACTCCGGGGTAGTTCTCTCTTCATGGATACAGAAAAATC  
 AGGAAAAAGGGAATTTGATGTGCGACAGACTCTCAAGTGAATATTAATCCTTTTACTCCGATTCTTTGTTGCT  
 TCATTCTCAGGACAGTGTGCTCGTAGAAAGAGAACGTATTGGAATGATTCTGTGGTGAAGACATGGAAGCCAG  
 TGATTATGAGCTTGAAGATGAAACAAGACCTGCTAAGAGAATTACAATTACTGAAAGCAATATGAAGTCCCGGTA  
 TACAACAGAATTTTCATGAGCTAGAGAAAATCGGCTCTGGAGAATTTGGTTCTGTATTTAAGTGTGTGAAGAGGCT  
 GGATGGATGCATTTATGCCATTAAGCGATCAAAAAAGCCATTGGCGGGCTCTGTTGATGAGCAGAACGCTTTGAG  
 AGAAGTATATGCTCATGCACTGCTTGGACAGCATTCTCATGTAGTTCGATATTTCTCTGCGTGGGCGAGAAGATGA  
 TCATATGCTTATACAGAATGAATATTGTAATGGTGAAGTTTAGCTGATGCTATAAGTGAAACTACAGAATCAT  
 GAGTTACTTTAAAGAAGCAGAGTTGAAGGATCTCCTTTTGCAAGTTGGCCGAGGCTTGAGGTATATTCAATCAAT  
 GTCTTTGGTTACATGGATATAAAACCTAGTAATATTTTCATATCTCGAACCTCAATCCCAAATGCTGCCTCTGA  
 AGAAGGAGACGAAGATGATTGGGCATCCAACAAAGTTATGTTTAAATAGGTGATCTTGGGCATGTAACAAGGAT  
 CTCCAGTCCACAAGTTGAAGAGGGCGATAGTCGTTTTCTTGCAATGAAGTTTTACAGGAGAATTATACCCATCT  
 ACCAAAAGCAGATATTTTTCGCTTGCCCTCACAGTGGTATGTGCTGCTGGTGTGAACCTCTTCCGAGAAATGG  
 AGATCAATGGCATGAAATCAGACAGGGTAGATTACCTCGGATACCACAAGTGCTTTCCCAAGAATTTACAGAGTT  
 GCTAAAAGTTATGATTATCCAGATCCAGAGAGAAGACCTTCAGCAATGGCACTGGTAAAGCATTACAGTATTGCT  
 GTCCGCTTCTAGAAAGAGTGCAGAACAATTACGAATAGAATTGAATGCCGAAAAGTTCAAAAATTCATTTTACA  
 AAAAGAACTCAAGAAAGCACAGATGGCAAAAGCTGCAGCTGAGGAAAAGCACTCTTCACTGACCGGATGGCCAC  
 TAGGTCCACCACCCAGAGTAATAGAACATCTCGACTTATTGGAAAAGAAAATGAACCGCTCTGTGAGCCTTACTAT  
 ATACTGAGCTACTCCTTTCCACCTCCCCCTGAACACTGTGACAAGAGGAAGCTAGGTTGAAATCACTGATAGAA  
 TCCAGTTTGCAATTACTTTCTCGATTGGTGTGAGTAGTTTTACTGATTAGGACTTTTATTGTGAATTACAGTTGA  
 AAGCTGTATTTTGATGATTGCTATGTGAGGCTTTCATCTAATCTTACCAGTCTGTCTTCTGTAGGATGTGTCAC  
 GTTGGATGTTACACCAGCCTTTCAGGGTTAACCCTGTGGTGGTGTGCTGCTTATAGTTTGCTGTTGCATTGTA  
 ATAAAAGGTGCTTTTCCCTGTAGTGACCTGTAAAAGTACTCAAGGGCTTTATTACAGACATACCCTCCCTTTGA  
 AAAGGGACATGCTAAAAGACTCATTACTACTCAGCCTTCAATGTACCTGTGTGCCATCTTATATTTCTTTTTTT  
 TTTTAAATTGTGAATTAGACTTGTATATCCCACTGGGAGCACTTGTAGGCATTGCATGAACCATGGGATGATGA

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**FIGURE 935B**

TTCTGTGGAGGTATTGCCTTGTGAATTTGCTGCTATTTTAGTTTTGTCTTTGCTGTAACTTGTAGCATTAAACA  
ATCATTGTTGTTAATAGGTCTTCTTTTTGAAACAATTATGTGAAATGTATAGCTGCTTTTGATGAAAAGCAGCTA  
TTTGCCTTTTTTTTTTTTTTCCTTTGAACCTTTGAAGCTAGTGCATTGGAAAAATGCACCCTTTCCCTCCTTTGGAAT  
GCTGTATTAATGTAGTATAATAATTACTGGTTTTGTAACCTGTTCTGTAATGTCCTTCCCGGACTCTTTTTAAA  
TGTCTCCCCCTAAGTTTTATACTTGATTGTATTATTAGTCTGTTTTTAAATGTTTTGCCCGGTTTTTCTCTTCAA  
TATTTGTGTATATAAACCGATCTTCGTGATACTGTACATAGCTGTTTGAAATGCCAGAATGACTTCTGACATTCC  
AAGTTTTTCACAAAATATATTTTATCTGTGATTAGCCATTTGACTAATAATACTGGCTAACAGATGTTGAAAAA  
ATTGTCTGTTTGTTTTCTCATTAAATTTGGTCTAAAACATGTTTGCACTTGCTTTGACTTGTGTTTTATTAACA  
TTGATTGGCATATTAAAAGTCACTCTGAGCTT

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**FIGURE 936**

MSFLSRQQPPPPRRAGAACTLRQKLIFSPCSDCEEEEEEEEEEGSGHSTGEDSAFQEPDSPLPPARSPTEPGPER  
RRSPGPAPGSPGELEEDLLLPACPGADEAGGAEGDSWEEEGFGSSSPVKSPAAPYFLGSSFSPVRCGGPGDAS  
PRGCGARRAGEGRRSPRDPHPGTPPHKTRFKRLRFDTPHTPKSLLSKARGIDSSSVKLRGSSLFMDTEKSGKREF  
DVRQTPQVNINFFTPDSLLLHSSGQCRRRKRTYWNDS CGEDMEASDYELEDETRPAKRITITESNMKSRYTTEFH  
ELEKIGSGEFGSVFKCVKRLDGCYAIKRSKKPLAGSVDEQNALREVIYAHAVLGQHSVVRVYFSAWAEDDHMLIQ  
NEYCNGGSLADAI SENYRIMSYFKEAELKDLLLQVGRGLRYIHMSLVHMDIKPSNIFISRTSIPNAASEEGDED  
D WASNKVMFKIGDLGHVTRISSPQVEEGDSRFLANEVLQENYTHLPKADIFALALTVCAAGAEPLPRNGDQWHE  
IRQGRLPRIPQVLSQEFTELLKVMIHDPERRPSAMALVKHSVLLSASRKSAEQLRIELNAEKFKNSLLQKELKK  
AQM AAAAAEERALFTDRMATRSTTQSNRTSRLIGKMNRSVSLTIY

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**FIGURE 937A**

GAATTCGGCACGAGGTCACCCGGATAGGTAAGGAAAACATGCCTGCCACACGGAAGCCAATGAGATATGGGCAT  
ACAGAGGGACACACGGAGGTCTGTTTTGATGATTCTGGGAGTTTTATTGTGACTTGTGGAAGTGATGGTGATGTG  
AGGATTTGGGAAGACTTGGATGATGATGATCCTAAGTTTATTAAATGTTGGAGAAAAGGCATATTCATGTGCTTTG  
AAGAGTGGAAAACCTGGTCACTGCAGTTTCTAATAATACTATTCAAGTCCACACATTTCTGAAGGAGTTCCAGAT  
GGTATATTGACTCGCTTCACTACAAATGCAAACCATGTGGTCTTTAATGGGGATGGTACTAAAATTGCTGCTGGA  
TCTAGTGATTTTCTAGTCAAAATTGTGGATGTGATGGATAGCAGCCAACAGAAAACATTTTCGAGGACATGATGCC  
CCTGTTTTAAGTCTTTCCTTTGATCCTAAGGACATCTTTCTGGCATCAGCTAGTTGTGATGGATCTGTCAGAGTG  
TGGCAAATTTTCAGATCAGACATGTGCTATTAGTTGGCCACTGCTACAAAAATGCAACGATGTGATAAATGCAAAA  
TCAATCTGCAGACTTGCTTGGCAGCCAAAAGTGGGAAGTTACTGGCAATTCCTGTGGAAAAATCTGTTAAGCTA  
TATAGAAGAGAACTTGGAGTCATCAATTTGATCTTTTCAGATAATTTTCATCTCTCAGACCCCTCAATATAGTAACC  
TGGTCTCCCTGTGGGCAATATTTAGCTGCAGGTAGTATTAATGGTCTAATCATAGTTTGGAAATGTGGAAACCAAA  
GACTGCATGGAAAGGGTGAAACATGAGAAAGGTTATGCAATTTGTGGTCTGGCATGGCATCCTACTTGTGGTCTGA  
ATATCGTATACTGATGCGGAAGGAAATCTAGGGCTTCTAGAGAATGTTTGTGACCCCAAGTGGAAAGACATCAAGC  
AGTAAGGTATCTAGCAGAGTGGAAAAGGATTATAATGATCTTTTTGATGGAGATGATATGAGTAATGCTGGTGAT  
TTTCTAAATGACAATGCAGTTGAGATCCCTTCTTTTTTCAAAGGGATTATAAATGATGATGAGGATGATGAAGAC  
CTCATGATGGCTTCAGGTCTGCTCTAGACAGCGAAGTCACATCCTAGAAGATGATGAAAACCTCAGTTGATATTTCA  
ATGCTAAAAACTGGTTCTAGTCTTCTCAAAGAGGAGGAGGAAGATGGTCAAGAAGGCAGCATTACAAATCTACCA  
CTTGTAACATCCCAAAGGCCATTTTATGATGGACCCATGCCAACTCCCGGCAAAAGCCATTTTCAGTCAGGTTCT  
ACACCGTTGCATCTCACTCACAGATTATGGTGTGGAACCTTATTGGAATTATTCGCTGCTATAATGATGAGCAA  
GACAATGCCATAGATGTGGAGTTCCATGATACCTCCATACACCATGCAACACACTTATCAAACACTTTGAATTAT  
ACAATAGCAGATCTTTCCACGAAGCTATTTTGTGGCATGTGAAAGCACTGATGAAGTAGCAAGCAAGCTTCAC  
TGCTGCACTTTAGTTCTTGGGATTCAAGCAAAGAGTGGATAATAGACTTGCCTCAGAATGAGGATATTGAAGCC  
ATATGTCTCGGTCAAGGATGGGCTGCTGCCGCTACTAGTGCCCTGCTTCTTCGATTGTTTACTATTGGAGGGGTT  
CAAAAAGAGGTATTCAGCCTTGCTGGACCTGTGGTGTCAATGGCAGGACATGGAGAACAGCTTTTCATTGTTTAT  
CACAGAGGTACAGGATTTGATGGGGATCAGTGCCTTGGAGTTCAACTGCTAGAGCTGGGGAAAAAGAAAAACAA  
ATTTTGCATGGTGACCCTCTTCTCTTACAAGGAAATCTTACCTTGCATGGATTGGGTTTTTCAGCTGAAGGTACC  
CCTTGTTACGTGGATTGAGAAGGAATTGTTTGAATGCTTAACAGAGGACTTGGTAATACGTGGACTCCTATATGT  
AATACAAGAGAGCACTGCAAAGGAAATCTGATCACTACTGGGTGGTTGGTATCCATGAAAATCCCCAGCAACTA  
AGGTGCATTCTTGTAAAGGTTCTCGGTTTTCCCCAACCCCTTCCACGCCCTGCTGTTGCTATATTATCCTTTAAG  
CTTCTTACTGTGATTTGCAACAGAGAAAGGACAAATGGAGGAGCAATTTTGGCGTTGAGTTATATTTTACAAC  
CACCTTGATTATTTAGCTAAAAATGGTTATGAATATGAAGAGAGCACTAAAAATCAAGCAACAAAAGAGCAACAG  
GAACCTTTAATGAAAATGCTTGCCTTTCTTGTAACTGGAGCGAGAATTCGTTGTGTGGAACCTTGTGATCTA  
ATGACTCAAAATGCTGTGAATTTAGCCATTAAATATGCTTCTCGCTCTCGGAAATTAATACTGGCTCAAAAATA  
AGTGAAGTGGCTGTAGAGAAAGGCAGCCGAATTGACAGCAACCCAGGTGGAAGAGGAAGAAGAAGAAGATTTC  
AGAAAAAGCTGAATGCTGGTTACAGCAATACTGCTACAGAGTGGAGCCAACCAAGGTTTCAAGAAATCAAGTTGAA  
GAAGATGCTGAGGACAGTGGAGAAGCTGATGATGAAGAAAAACCAGAAATACATAAGCCTGGACAGAACTCGTTT  
TCCAAAAGTACAAATTCCTCTGATGTTTTCAGCTAAGTCAGGTGCAGTTACCTTTAGCAGCCAAGGACGAGTAAAT  
CCCTTTAAGGTATCAGCCAGTTCCAAAGAACCAGCCATGTCAATGAATTCAGCACGTTCAACTAATATTTTAGAC  
AATATGGGCAAAATCATCCAAGAAATCCACTGCACCTTAGTCGAACTACAAATAATGAAAAGTCTCCCATTATAAAG  
CCTCTGATTCCAAAGCCGAAGCCTAAGCAGGCATCTGCAGCATCTATTTCCAGAAAAGAAATCTCAAACCTAAT  
AAAACCTGAGGAAGTGAAAGAAGAAAATCTTAAAAATGTATTATCTGAAACCCCAAGCTATATGTCTCTCTCAAAAC  
ACTGAAAACCAAAAGGCCAAAGACCGGGTTCCAGATGTGGTTAGAAGAAAAATAGAAGTAATATTTTGTCTGACAA  
CCTGACTTTTTTCAGATGAAGCAGACATAATAAAGAAGGAATGATTGATTTAGAGTATTGTCAACTGAAGAAAGA  
AAGGTGTGGGCTAACAAAGCCAAAGGAGAAACGGCAAGTGAAGGAACTGAAGCAAAGAACGGAAGAACGTGTGGTT  
GATGAAAGTGATGAAACAGAAAACAGGAAGAAAAAGCAAAAGAGAACCTGAATTTGTCTAAAAAGCAGAAACCT  
TTAGATTTTTTCTACAAATCAGAACTATCAGCTTTTGCATTTAAGCAGGAGTAAAGGAAGAAAGTGACCCTAGGG  
AAGTAATGGATTTTTTTTACTCATCTTTGAATATAGACTCGAGTCTTTGGGAAACTCATTATATATATATTTTTT  
AAAGAGTTTGAAGCAACTGTTTGTCTTTATAAGATAATGTAGTAATTATATTGGTGTAGGTAACAGGACATATGT

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**FIGURE 937B**

AAAACTATCATCTTTGCAGATTACTCTGCCTCCAAATGCAGGGCCTTTCAGAGATGCATTGTGATTGTAATTAC  
TGAGTTGAAGCTCCAACCAATTTGAATTTGTTTCTTAACCTTGAAAAATCATTAAAGCCAAGGTATTAAACCTT  
TGTGCATTAATACCTTCTAGGGGTTTGGTTTCATTTGGTTTTTGTGTCATGTGCAAGGAAGGACAATAGTCCTCTTC  
CAAGTGTGTTAGCATAGACTTCTCTATATGTTTCTACTAGACCTAGGGGATGACGTCTTTTAATAATACTGGCCC  
TAAACATGTAAATAATCTTGTAGGTGAGACTTTTTCTTTTGTGTTTCGAAATTTCTATGTGGCTTTCAGTTGT  
CTGTTTGTATAGCCTGGATTTTTTTGAGGTAAATGAACTTCTCATTGTAAAAAAAAAAAAAAAAAACTCGAG

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**FIGURE 938**

MPATRKPMRYGHTEGHTEVCFDDSGSFIVTCGSDGDVRIWEDLDDDDPKFINVGEKAYSCALKSGKLVTAVSNN  
 IQVHTFPEGVPDGLTRFTTNANHVVFNNGDGTKIAAGSSDFLVKIVDVMDSQQKTFRGHDAPVLSLSFDPKDIF  
 LASASCDGSRVWQISDQTCAISWPLLQKCNVDVINAKSICRLAWQPKSGKLLAIPVEKSVKLYRRESWSHQFDLS  
 DNFISQTLNIVTWSPCGQYLAAGSINGLIIVWNVETKDCMERVKHEKGYAICGLAWHPTCGRISYTD AEGNLGLL  
 ENVCDPSGKTSSSKVSSRVEKDYNLDFDGDDMSNAGDFLNDNAVEIPSFSGKIINDDDEDEDLMMASGRPRQRSH  
 ILEDDENSVDISMLKTGSSLLKEEEDGQEGSIHNLPLVTSQRPFYDGPMPTPRQKPFQSGSTPLHLTHRFMVWN  
 SIGIIRCYNDEQDNAIDVEFHDTSIHHATHLSNTLNYTIADLSHEAILLACESTDELASKLHCLHFSSWDSSKEW  
 IIDLPQNEDIEAICLGQGWAAAATSALLRLFTIGGVQKEVFSLAGPVVSMAGHGEQLFIVYHRGTGFDGDQCLG  
 VQLEELGKKKKQILHGDPLPLTRKSYLAWIGFSAEGTPCYVDSEGIVRMLNRGLGNTWTPICNTREHCKGKSDHY  
 WVGIIHENPQQLRCIPCKGSRFPPTLPRPAVAILSFKLPYCQIATEKGQMEEQFWRSVIFHNHLDYLAKNGYEYE  
 ESTKNQATKEQQEELMKMLALSCKLEREFRCVELADLMTQNAVNLAIKYASRSRKLILAQKLSELAVEKAAELTA  
 TQVEEEEEEDFRKKLNAGYSNTATEWSQPRFRNQVEEDAEDSGEADDEEKPEIHKPGQNSFSKSTNSSDVSAKS  
 GAVTFSSQGRVNPFKVSASSKEPAMSMNSARSTNILDNMGKSSKKSTALSRTTNNEKSPIIKPLIPKPKPKQASA  
 ASYFQKRNSQTNKTEEVEENLKNVLSETPAICPPQNTENQRPKTGFQMWLEENRSNILSDNPDFSDEADIIKEG  
 MIRFRVLSTEERKVVANKAKGETASEGTEAKKRKRVDSEDETENQEEKAKENLNLSSKKQKPLDFSTNQKLSAFA  
 FKQE

## FIGURE 939

CTTGTCTCCCCTGGTTTGTGAAGTGCAGAAAACCAGAGGCGCAGTCA**ATGT**CGGGATTTCGACGATCCTGGCATT  
CTACAGCGACAGCTTCGGGGGCGACGCCAGGCCGACGAGGGGCAGGCCCGCAAATCGCAGCTGCAGAGGCGCTT  
CAAGGAGTTCTTCGCGCAGTACCGAGTGGGCACCGACCGCACGGGCTTCACCTTCAAATACAGGGATGAACTCAA  
GCGGCATTACAACCTGGGGGAGTACTGGATTGAGGTGGAGATGGAGGATCTGGCCAGCTTTGATGAGGACCTGGC  
CGACTACTTGTACAAGCAGCCAGCCGAGCACCTGCAGCTGCTGGAGGAAGCTGCCAAGGAGGTAGCTGATGAGGT  
GACCCGGCCCCGGCCTTCTGGGGAGGAGGTGCTCCAGGACATCCAGGTCATGCTCAAGTCGGACGCCAGCCCTTC  
CAGCATTTCGTAGCCTGAAGTCGGACATGATGTACACCTGGTGAAGATCCCTGGCATCATCATCGCGGCCTCTGC  
GGTCCGTGCCAAGGCCACCCGCATCTCTATCCAGTGCCGCGAGCTGCCGCAACACCCTCACCAACATTGCCATGCG  
CCCTGGCCTCGAGGGCTATGCCCTGCCCAGGAAGTGCAACACAGATCAGGCTGGGCGCCCCAAATGCCCATTGGA  
CCCGTACTTTCATCATGCCCGACAAATGCAATGCGTGGACTTCCAGACCCTGAAGCTGCAGGAGCTGCCTGATGC  
AGTCCCCCACGGGGAGATGCCCAGACACATGCAGCTCTACTGCGACAGGTACCTGTGTGACAAGGTCGTCCCTGG  
GAACAGGGTTACCATCATGGGCATCTACTCCATCAAGAAGTTTGGCCTGACCACCAGCAGGGGCGGTGACAGGGT  
GGGCGTGGGCATCCGAAGCTCCTACATCCGTGTCTTGGGCATCCAGGTGGACACAGATGGCTCTGGCCGCAGCTT  
TGCTGGGGCCGTGAGCCCCCAGGAGGAGGAGGAGTTCCGTGCGCTGGCTGCCCTCCCAAATGTCTATGAGGTCTAT  
CTCCAAGAGCATCGCCCCCTCCATCTTTGGGGGCACAGACATGAAGAAGGCCATTGCCTGCCTGCTCTTTGGGGG  
CTCCCGAAAGAGGCTCCCTGATGGACTTACTCGCCGAGGAGACATCAACCTGCTGATGCTAGGGGACCCCTGGGAC  
AGCCAAGTCCAGCTTCTGAAGTTTGTGGAGAAGTGTTCTCCCATTTGGGGTATACACGTCTGGGAAAGGCAGCAG  
CGCAGCTGGACTGACAGCCTCGGTGATGAGGGACCCCTTCGTCCCGGAATTCATCATGGAGGGCGGAGCCATGGT  
CCTGGCCGATGGTGGGGTCTGTCTGTATTGACGAGTTTGACAAGATGCGAGAAGATGACCGTGTGGCAATCCACGA  
AGCCATGGAGCAGCAGACCATCTCTATCGCCAAGGCTGGGATCACCACCACCCTGAATCCCCTGCTCCGTCTCT  
GGCTGCTGCCAACTCAGTGTTTCGGCCGCTGGGATGAGACGAAGGGGGAGGACAACATTGACTTTCATGCCACCAT  
CTTGTGCGCTTCGACATGATCTTCATCGTCAAGGATGAGCACAATGAGGAGAGGGATGTGATGCTGGCCAAGCA  
TGTCATCACTCTGCACGTGAGCGCACTGACACAGACACAGGCTGTGGAGGGCGAGATTGACCTGGCCAAGCTGAA  
GAAGTTTATTGCCTACTGCCGAGTGAAATGTGGCCCCGGCTGTGACGAGAGGCTGCAGAGAACTGAAGAACCG  
CTACATCATCATGCGGAGCGGGGCCCCGTCAGCACGAGAGGGACAGTGACCGCCGCTCCAGCATCCCCATCACTGT  
GCGGCAGCTGGAGGCCATTGTGCGCATCGCGGAAGCCCTCAGCAAGATGAAGCTGCAGCCCTTCGCCACAGAGGC  
AGATGTGGAGGAGGCCCTGCGGCTCTTCCAAGTGTCCACGTTGGATGCTGCCTTGTCCGGTACCCTGTGAGGGGT  
GGAGGGCTTCACCAGCCAGGAGGACCAGGAGATGCTGAGCCGCATCGAGAAGCAGCTCAAGCGCCGCTTTGCCAT  
TGGCTCCCAGGTGTCTGAGCACAGCATCATCAAGGACTTCACCAAGCAGAAATACCCGGAGCACGCCATCCACAA  
GGTGCTGCAGCTCATGCTGCGGCGCGGCGAGATCCAGCATCGCATGCAGCGCAAGGTTCTCTACCGCTCAAG**TG**  
**AGT**CGCGCCGCTCACTGGACTCATGGACTCGCCACGCCTCGCCCCCTCTGCCGCTGCCTGCCATTGACAATGT  
TGCTGGGACCTCTGCCTCCCCACTGCAGCCCTCGAACTTCCCAGGCACCCCTCCTTTCTGCCCCAGAGGAAGGAGC  
TGTAAGTGCTCTGCCTCTGGGCGCCCGCTCTAGCGCGGTTCTGGGAAGTGTGCTTTTGGCATCCGTTAATAA  
TAAAGCCACGGTGTGTTTCAGGTAAAAAAAAAAAAAAAAA



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**FIGURE 940**

MSGFDDPGIFYSDSFGGDAQADEGQARKSQLQRRFKEFLRQYRVGTDRTGFTFKYRDELKRHYNLGEYWIEVEME  
DLASFDEDLADYLYKQPAEHLQLLEEAAKEVADEVTRPRPSGEEVLQDIQVMLKSDASPSSIRSLKSDMMSHLVK  
IPGIIIAASAVRAKATRISIQCRSCRNTLTNIAMRPGLEGYALPRKCNTDQAGRPKCPLDPYFIMPDKCKCVDFQ  
TLKLQELPDVPHGEMPRHMLYCDRYLCDKVVPGNRVTIMGIYSIKKFGLTTSRGRDRVGVGIRSSYIRVLGIQ  
VDTDGSGRSFAGAVSPQEEEEFRRLAALPNVYEVISKSIAPSIFFGGTDMKKAIACLLFGGSRKRLPDGLTRRGDI  
NLLMLGDPGTAKSQLLKFEKCSPIGVYTSKGKSSAAGLTASVMRDPSSRNFIMEGGAMVLADGGVVCIDEFDKM  
REDDRVAIHEAMEQQTISIAGITTTLSRCSVLAAANSVFGRWDETKGEDNIDFMPTILSRFDMIFIVKDEHN  
EERDVMLAKHVITLHVSALTQTQAVEGEIDLAKLKKFIAYCRVKCGPRLSAEAAEKLKNRYIIMRSGARQHERDS  
DRRSSIPITVRQLEAIVRIAEALSKMKLQPFATEADVEEALRLFQVSTLDAALSGTLSGVEGFTSQEDQEMLSRI  
EKQLKRRFAIGSQVSEHSIIKDFTKQKYPEHAHKKVLQMLLRGEIQHRMQRKVLYRLK

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**FIGURE 941**

GAATTCGGGCGTGGGCGCGGGGGCGCGGCGTGCGGCACGCTGCAGGGCTGAAGCGGCGGCGGCGGTGGGGACTGC  
ACGTAGCCCGGCGCTCGGCATGGCTCTCCTGGTGCTCGGTCTGGTGAGCTGTACCTTCTTTCTGGCAGTGAATGG  
TCTGTATTCTCTAGTGATGATGATCGAATTAACATCAAAATTTCAACCGAGAAGTTATTAGAGTGATAG  
TTTGTGGCTTGTAGAATTCTATGCTCCATGGTGTGGTCACTGTCAAAGATTAACACCAGAATGGAAGAAAGCAGC  
AACTGCATTAAAAGATGTTGTCAAAGTTGGTGCAGTTGATGCAGATAAGCATCATTCCTTAGGAGGTGAGTATGG  
TGTTTCAGGGATTTCTTACCATTAAAGATTTTTGGATCCAACAAAAACAGACCAGAAGATTACCAAGGTGGCAGAAC  
TGGTGAAGCCATTGTAGATGCTGCGCTGAGTGCTCTGCGCCAGCTCGTGAAGGATCGCCTCGGGGGACGGAGCGG  
AGGATACAGTTCTGGAACAAGGCAGAAGTGATAGTTCAAGTAAGAAGGATGTGATTGAGCTGACAGACGACAG  
CTTTGATAAGAAATGTTCTGGACAGTGAAGATGTTTGGATGGTTGAGTTCTATGCTCCTTGGTGTGGACACTGCAA  
AAACCTAGAGCCAGAGTGGGCTGCCGCAGCTTCAGAAGTAAAGAGCAGACGAAAGGAAAAGTGAAGTGGCAGC  
TGTTGGATGCTACAGTCAATCAGGTTCTGGCCTCCCGATACGGGATTAGAGGATTTCTTACAATCAAGATATTTCA  
GAAAGGCGAGTCTCCTGTGGATTATGACGGTGGGCGGACAAGATCCGACATCGTGTCCCGGGCCCTTGATTTGTT  
TTCTGATAACGCCCCACCTCCTGAGCTGCTTGAGATTATCAACGAGGACATTGCCAAGAGGACGTGTGAGGAGCA  
CCAGCTCTGTGTTGTGGCTGTGCTGCCCCATATCCTTGATACTGGAGCTGCAGGCAGAAATTCCTTATCTGGAAGT  
TCTTCTGAAGTTGGCAGACAAATACAAAAGAAAATGTGGGGGTGGCTGTGGACAGAAGCTGGAGCCCAGTCTGA  
ACTTGAGACCGCGTTGGGGATTGGAGGGTTTGGGTACCCCGCCATGGCCGCCATCAATGCACGCAAGATGAAATT  
TGCTCTGCTAAAAGGCTCCTTCAGTGAGCAAGGCATCAACGAGTTTCTCAGGGAGCTCTCTTTTGGGCGTGGCTC  
CACGGCACCTGTAGGAGGCGGGGCTTTCCCTACCATCGTTGAGAGAGAGCCTTGGGACGGCAGGGATGGCGAGCT  
TCCCGTGGAGGATGACATTGACCTCAGTGATGTGGAGCTTGATGACTTAGGGAAAGATGAGTTGTGAGAGCCACA  
ACAGAGGCTTCAGACCATTTTCTTTTCTTGGGAGCCAGTGGATTTTCCAGCAGTGAAGGGACATTCTCTACTTT  
CTTTTCTTGGGAGCCAGTGGATTTTCCAGCAGTGAAGGGACATTCTCTACACTCAGATGACTCTACCAGTGGCC  
TTTTAACCAAGAAGTAGTACTTGATTGGTCAATTTGAAAACACTGCAACAGTGAACTTTTGCATCTCAAGAAAACA  
TTGAAAAATTTCTATGAATTGTTGTAGCCGGTGAATTGAGTCGTATTCTGTACATAATATTTGAAGAAAACCTG  
GCTGTGAAACATTTTCTCTCTGACTGCTGCTTGAATGTTCTTGGAGGCTGTTTCTTATGTATGGGTTTTTTTT  
AATGTGATCCCTTCATTTGAATATTAATGGCTTTTTCCATTAAAGAATAAATTGGAAAAAGAAAAAAAAAAAA  
GGAATTC

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**FIGURE 942**

MALLVLGLVSCFFLAVNGLYSSDDVIELTPSNFNREVIQSDSLWLVEFYAPWCGHCQRLTPEWKKAATALKDV  
VKVGAVDADKHHS LGGQYGVQGFP TIKIFGSNKNRPEDYQGGRTGEAIVDAALSALRQLVKDRLGGRSGGYSSGK  
QGRSDSSSKKDVIELTDDSF DKNVLDSE DVWMVEFYAPWCGHCKNLEPEWAAAASEVKEQTKGKVKLA AVDATVN  
QVLASRYGIRGFPTIKIFQKGESPV DYGGRTRSDIVSRALDLFSDNAPPPELLEI INEDIAKRTCEEHQLCVVA  
VLPHILDTGAAGRNSYLEVLLKLADKYKKKMWGLWTEAGAQSELETALGIGGFGYPAMAAINARKMKFALLKGS  
FSEQGINEFLRELSFGRGSTAPVGGGAFPTIVEREPWDGRDGELPVEDDIDLSDELDDLGKDEL

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**FIGURE 943**

GCGACCGCTCGTCCGCCCCGGCTTGAGGCCCGCGGGAGCGCGCCGCAATTCGTGCGCCCGCGGGGGGGCGGCCTC  
CCGGCATCTTCGCGGCGACCAAGGACTACCAGGAAGGGGAGCGGCTGGG**ATGC**GCGCTCCGCGGCCCCGCGAGTA  
CAAAGCGGGCGACCTGGTCTTCGCCAAGATGAAGGGCTACCCGCACTGGCCGCGCCGGATTGATGAACTCCCAGA  
GGGCGCTGTGAAGCCTCCAGCAAACAAGTATCCTATCTTCTTTTTTGGCACCCATGAACTGCATTTCTAGGTCC  
CAAAGACCTTTTTCCATATAAGGAGTACAAAGACAAGTTTGGAAAGTCAAACAAACGGAAAGGATTTAACGAAGG  
ATTGTGGGAAATAGAAAATAACCCAGGAGTAAAGTTTACTGGCTACCAGGCAATTCAGCAACAGAGCTCTTCAGA  
AACTGAGGGAGAAGGTGGAAATACTGCAGATGCAAGCAGTGAGGAAGAAGGTGATAGAGTAGAAGAAGATGGAAA  
AGGCAAAAGAAAGAATGAAAAAGCAGGCTCAAAACGGAAAAAGTCATATACTTCAAAGAAATCCTCTAAACAGTC  
CCGGAATCTCCAGGAGATGAAGATGACAAAGACTGCAAAGAAGAGGAAAAACAAAGCAGCTCTGAGGGTGGAGA  
TGCGGGCAACGACACAAGAAACACAACCTTCAGACTTGAGAAAACCAAGTGAAGGGACCT**TAA**CTACCATAATGAAT  
GCTGCATATTAAGAGAAACCACAAGAAGGTTATATGTTTTGGTTGTCTAATATTCTTGGATTGATATGAACCAAC  
ACATAGTCCTTGTGTCTATTGACAGAACCCAGTTTGTATGTACATTATTCATATTCTCTCTGTTGTGTTTTCGG  
GGGGAAAAGACATTTTAGCCTTTTTTAAAAGTTACTGATTTAATTTTCATGTTATTTGGTTGCATGAAGTTGCCCT  
TAACCACTAAGGATTATCAAGATTTTTGCGCAGACTTATACATGTCTAGGATCCTTTTATCAAGGCAGTTATGAT  
CATCGTTTTCTGCCTTGACCCACCATCATCAACACTCAGTTAAATATAAATTAACATTTTTTAGATGACCAC  
TCAACATAATGCTTAAGAATGAATTTCTCTCTGTGACAGAACCCAGGAATTAATTCCTAAATACATAACGTTG  
GTATATTGAAGACGAAATTTAAATTGGTCCTTCAGTTTTGAGGCCATGTGTAAAGTTTAACCATATTGTAAAATA  
TCTATTCCGTATTAGAAATAGCTAGTTGACAGCTTATACTTCTCAACATTCATATTGTTATGTACACAACTAAG  
TTTCTATATGTGAAGTTAGTGAGTCTTTTTGTGTTACTCCAAAATAAAGGCAATGATTTATTTTTTTCCAGTGC  
CAATACAATTTTGAGCTAAGCACTCAAGGTGGATACTTTACATTTTAAAGCTGGAATCAGCAACAGCCCTATGGG  
AAACCAGACAAAGCATTGACTTTTTAAATGTAGACTTTTAAAATAAACTGTTTTCTTTTGGAACTACAATTAGAAT  
AGTTAATATTTCATCCTTAAACCATTATTATGTGTACATTATTGTTGCTATTGTGATAATAGAGAATTTTATTTAT  
TTTTATGCCAGCTTATATTGTGAGAACACATTTAGTCAGTTTGGGTTTTATCAATCCTGTTAATGCTTGTCTTG  
GAACATCTTTTCGCTATTACGGTTTGTAGTTGAAAAGTTTACTGTAAAAAAATCAAAAACAAAAAATGTATTG  
TTTTTACAGAATAAATTTATTGGAATGTGA

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**FIGURE 944**

MARPRPREYKAGDLVFAKMGYPHWPARIDELPEGAVKPPANKYP IFFFFGTHETAFLGPKDLFPYKEYKDKFGKS  
NKRKGFNEGLWEIENNPGVKFTGYQAIQQSSSETEGEGGNTADASSEEGDRVEEDGKGKRRKNEKAGSKRKKSY  
TSKKSSKQSRKSPGDEDDKDCKEEENKSSSEGGDAGNDTRNTTSDLQKTSEGT

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**FIGURE 945A**

AATTCTCGAGCTCGTTCGACCGGTTCGACGAGCTCGAGGGTTCGACGAGCTCGAGGGCGCGCGCCCGGCCCCACCCC  
 TCGCAGCACCCCGCGCCCCGCGCCCTCCCAGCCGGGTCCAGCCGGAGCCATGGGGCCGGAGCCGAGTGCAGCACC  
ATGGAGCTGGCGGCCCTTGTGCCGCTGGGGGCTCCTCCTCGCCCTCTTGCCCCCGGAGCCGCGAGCACCCAAAGTG  
 TGCACCGGCACAGACATGAAGCTGCGGCTCCCTGCCAGTCCCAGACCCACCTGGACATGCTCCGCCACCTCTAC  
 CAGGGCTGCCAGGTGGTGCAGGGAAACCTGGAACCTACCTACCTGCCACCAATGCCAGCCTGTCTTCTCTGCAG  
 GATATCCAGGAGGTGCAGGGCTACGTGCTCATCGCTCACAACCAAGTGAGGCAGGTCCCACTGCAGAGGCTGCGG  
 ATTGTGCGAGGCACCCAGCTCTTTGAGGACAACCTATGCCCTGGCCGTGCTAGACAATGGAGACCCGCTGAACAAT  
 ACCACCCCTGTACAGGGGCTCCCCAGGAGGCTGCGGGAGCTGCAGCTTCGAAGCCTCACAGAGATCTTGAAA  
 GGAGGGGTCTTGATCCAGCGGAACCCCCAGCTCTGCTACCAGGACACGATTTTGTGGAAGGACATCTTCCACAAG  
 AACAACCAGCTGGCTCTCACACTGATAGACACCAACCGCTCTCGGGCCTGCCACCCCTGTTCTCCGATGTGTAAG  
 GGCTCCCCTGCTGGGGAGAGAGTTCTGAGGATTGTGAGAGCCTGACGCGCACTGTCTGTGCCGGTGGCTGTGCC  
 CGCTGCAAGGGGCCACTGCCCACTGACTGCTGCCATGAGCAGTGTGCTGCCGGCTGCACGGGCCCCAAGCACTCT  
 GACTGCCCTGGCCTGCCCTCCACTTCAACCACAGTGGCATCTGTGAGCTGCACTGCCAGCCCTGGTCACCTACAAC  
 ACAGACACGTTTGTAGTCCATGCCCAATCCCGAGGGCCGGTATACATTTCGGCGCCAGCTGTGTGACTGCCTGTCCC  
 TACAACCTACCTTTCTACGGACGTGGGATCCTGCACCCTCGTCTGCCCCCTGCACAACCAAGAGGTGACAGCAGAG  
 GATGGAACACAGCGGTGTGAGAAGTGCAGCAAGCCCTGTGCCCGAGTGTGCTATGGTCTGGGCATGGAGCACTTG  
 CGAGAGGTGAGGGCAGTTACCACTGCCAATATCCAGGAGTTTGTGCTGCAAGAAGATCTTTGGGAGCCTGGCA  
 TTTCTGCCGGAGAGCTTTGATGGGGACCCAGCCTCCAACACTGCCCGCTCCAGCCAGAGCAGCTCCAAGTGTTT  
 GAGACTCTGGAAGAGATCACAGGTTACCTATACATCTCAGCATGGCCGGACAGCCTGCCTGACCTCAGCGTCTTC  
 CAGAACCTGCAAGTAATCCGGGGACGAATTCTGCACAATGGCGCCTACTCGCTGACCCTGCAAGGGCTGGGCATC  
 AGCTGGCTGGGGCTGCGCTCACTGAGGGAACTGGGCAGTGGACTGGCCCTCATCCACCATAACACCCACCTCTGC  
 TTCGTGCACACGGTGCCCTGGGACCAGCTCTTTCGGAACCCGCACCAAGCTCTGCTCCACACTGCCAACCGGCCA  
 GAGGACGAGTGTGTGGGCGAGGGCCTGGCCTGCCACCAGCTGTGCGCCGAGGGCACTGCTGGGGTCCAGGGCCC  
 ACCCAGTGTGTCAACTGCAGCCAGTTTCTTCGGGGCCAGGAGTGCCTGGAGGAATGCCGAGTACTGCAGGGGCTC  
 CCCAGGGAGTATGTGAATGCCAGGCACTGTTTGCCTGCCACCCTGAGTGTGAGCCCCAGAATGGCTCAGTGACC  
 TGTTTTGGACCGGAGGCTGACCAGTGTGTGGCCTGTGCCACTATAAGGACCCTCCCTTCTGCGTGGCCCCGCTGC  
 CCCAGCGGTGTGAAACCTGACCTCTCCTACATGCCATCTGGAAGTTTCCAGATGAGGAGGGCGCATGCCAGCCT  
 TGCCCCATCAACTGCACCCACTCCTGTGTGGACCTGGATGACAAGGGCTGCCCGCCGAGCAGAGAGCCAGCCCT  
 CTGACGTCCATCGTCTCTGCGGTGGTTGGCATTCTGCTGGTCTGTTGGGGGTGGTCTTTGGGATCCTCATC  
 AAGCGACGGCAGCAGAAGATCCGGAAGTACAGATGCGGAGACTGCTGCAGGAAACGGAGCTGGTGGAGCCGCTG  
 ACACCTAGCGGAGCGATGCCCAACCAGGCGCAGATGCGGATCCTGAAAGAGACGGAGCTGAGGAAGGTGAAGGTG  
 CTTGGATCTGGCGCTTTTGGCACAGTCTACAAGGGCATCTGGATCCCTGATGGGGAGAATGTGAAAATTCCAGTG  
 GCCATCAAAGTGTTGAGGGAAAACACATCCCCCAAAGCCAACAAGAAATCTTAGACGAAGCATACGTGATGGCT  
 GGTGTGGGCTCCCCATATGTCTCCCGCCTTCTGGGCATCTGCCTGACATCCACGGTGCAGCTGGTGACACAGCTT  
 ATGCCCTATGGCTGCCTCTTAGACCATGTCCGGGAAAACCGCGGACGCCTGGGCTCCCAGGACCTGCTGAACTGG  
 TGTATGCAGATTGCCAAGGGGATGAGCTACCTGGAGGATGTGCGGCTCGTACACAGGGAAGTGGCCGCTCGGAAC  
 GTGCTGGTCAAGAGTCCCAACCATGTCAAAATTACAGACTTCGGGCTGGCTCGGCTGCTGGACATTGACGAGACA  
 GAGTACCATGCAGATGGGGGCAAGGTGCCCATCAAGTGGATGGCGCTGGAGTCCATTCTCCGCCGGCGGTTACCC  
 CACCAGAGTGATGTGTGGAGTTATGGTGTGACTGTGTGGGAGCTGATGACTTTTGGGGCCAAACCTTACGATGGG  
 ATCCCAGCCCGGAGATCCCTGACCTGCTGGAAAAGGGGGAGCGGCTGCCCCAGCCCCCATCTGCACCATTGAT  
 GTCTACATGATCATGGTCAAATGTTGGATGATTGACTCTGAATGTGCGCCAAGATTCCGGGAGTTGGTGTCTGAA  
 TTCTCCCGCATGGCCAGGGACCCCCAGCGCTTTGTGGTCTATCCAGAATGAGGACTTGGGGCCAGCCAGTCCCTTG  
 GACAGCACCTTCTACCGCTCACTGCTGGAGGACGATGACATGGGGGACCTGGTGGATGCTGAGGAGTATCTGGTA  
 CCCCAGCAGGGCTTCTTCTGTCCAGACCTGCCCGGGCGCTGGGGGATGGTCCACCACAGGCACCGCAGCTCA  
 TCTACCAGGAGTGGCGGTGGGGACCTGACACTAGGGCTGGAGCCCTCTGAAGAGGAGGCCCCCAGGTCTCCACTG  
 GCACCCTCCGAAGGGGCTGGCTCCGATGTATTTGATGGTGACCTGGGAATGGGGGACGCCAAGGGGCTGCAAAGC  
 CTCCCCACACATGACCCAGCCCTCTACAGCGGTACAGTGAGGACCCACAGTACCCCTGCCCTCTGAGACTGAT  
 GGCTACGTTGCCCCCTGACCTGCAGCCCCCAGCCTGAATATGTGAACAGCCAGATGTTTCGGCCCCAGCCCCCT

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**FIGURE 945B**

TCGCCCCGAGAGGGCCCTCTGCCTGCTGCCCCACCTGCTGGTGCCACTCTGGAAAGGGCCAAGACTCTCTCCCCA  
GGGAAGAATGGGGTCGTCAAAGACGTTTTTGCCTTTGGGGGTGCCGTGGAGAACCCCGAGTACTTGACACCCAG  
GGAGGAGCTGCCCCCTCAGCCCCACCCTCCTCCTGCCTTCAGCCCAGCCTTCGACAACCTCTATTACTGGGACCAG  
GACCCACCAGAGCGGGGGGCTCCACCCAGCACCTTCAAAGGGACACCTACGGCAGAGAACCCAGAGTACCTGGGT  
CTGGACGTGCCAGTGTGAACCAGAAGGCCAAGTCCGCAGAAGCCCTGATGTGTCCTCAGGGAGCAGGGAAGGCCT  
GACTTCTGCTGGCATCAAGAGGTGGGAGGGCCCTCCGACCACTTCCAGGGGAACCTGCCATGCCAGGAACCTGTC  
CTAAGGAACCTTCCTTCCTGCTTGAGTTCCCAGATGGCTGGAAGGGGTCCAGCCTCGTTGGAAGAGGAACAGCAC  
TGGGGAGTCTTTGTGGATTCTGAGGCCCTGCCCAATGAGACTCTAGGGTCCAGTGGATGCCACAGCCCAGCTTGG  
CCCTTTCCTTCCAGATCCTGGGTACTGAAAGCCTTAGGGAAGCTGGCCTGAGAGGGGAAGCGGCCCTAAGGGAGT  
GTCTAAGAACAAAAGCGACCCATTACAGAGACTGTCCCTGAAACCTAGTACTGCCCCCATGAGGAAGGAACAGCA  
ATGGIGTCAGTATCCAGGCTTTGTACAGAGTGCTTTTCTGTTTGTAGTTTTTACTTTTTTTGTTTTGTTTTTTAAA  
GACGAAATAAAGACCCAGGGGAGAATGGGTGTTGTATGGGGAGGCAAGTGTGGGGGGTCCTTCTCCACACCCACT  
TTGTCCATTTGCAAATATATTTTGGAAAAC

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**FIGURE 946**

MELAAALCRWGLLALLLPPGAASTQVCTGTDMLRLPASPETHLDMRLHLYQGCQVVQGNLELTYPNLSLFLQ  
DIQEVQGYVLIAHNQVRQVPLQRLRIVRGTLFEDNYALAVLDNGDPLNNTTPVTGASPGGLRELQLRSLTEILK  
GGVLIQRNPQLCYQDTILWKDIFHKNNQLALTIDTNRSRACHPCSPMCKGSRCWGESSEDCQSLTRTVCAGGCA  
RCKGPLPTDCCHEQCAAGCTGPKHSDCLACLFHNSGICELHCPALVTYNTDTFESMPNPEGRYTFGASCVTACP  
YNYLSTDVGSCTLVCPHNPQEVTAEDGTQRCEKCSKPCARVCYGLGMEHLREVRAVTSANIQEFAGCKKIFGSLA  
FLPESFDGDPASNTAPLQPEQLQVFETLEEITGYLYISAWPDSLPLSVFQNLQVIRGRILHNGAYSLTLQGLGI  
SWLGLRSLRELGSGGLALIHNNHLCFVHTVPWDQLFRNPHQALLHTANRPEDECVGEGGLACHQLCARGHCWGPGP  
TQCVNCSQFLRGQECVEECRVLQGLPREYVNARHCLPCHPECPQNGSVTCFGPEADQCVACAHYKDPFPCVARC  
PSGVKPDLSYMPIWKFPDEEGACQPCPINCTHSCVDLDDKGCPAEQRASPLTSIVSAVVGILLVVVLGVVFGILI  
KRRQOKIRKYTMRRLLQETELVEPLTPSGAMPNQAQMRILKETELRKVKVLGSGAFGTVYKGIWIPDGENVKIPV  
AIKVLRENTSPKANKEILDEAYVMAGVGSPYVSRLLGICLTSTVQLVTQLMPYGCLLDHVRENRRGLGSQDLLNW  
CMQIAKGMSYLEDVRLVHRDLAARNVLVKSPNHVKITDFGLARLLDIDETEHADGGKVPKWMMALESILRRRFT  
HQSDVWSYGVTVWELMTFGAKPYDGIPAREIPDLLEKGERLPQPPICTIDVYMIMVKCWMIDSECRPRFRELVSE  
FSRMARDPQRFVVIQNEDLGPASPLDSTFYRSLLEDDDMGDLVDAEEYLVPPQGGFFCPDPAPGAGGMVHHRHRS  
STRSGGDLTLGLEPSEEEAPRSPLAPSEGAGSDVFDGDLGMAAKGLQSLPTHDPSPQLQRYSEDPTVPLPSETD  
GYVAPLTCSPQPEYVNQPDVRPQPPSPREGPLPAARPAGATLERAKTLSPGKNGVVKDVFAFGGAVENPEYLTPO  
GGAAPQPHPPPAFSPAFDNLYYWDQDPPERGAPPSTFKGTPTAENPEYLGLDVPV



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**FIGURE 947**

GGCACGAGGGCGCGGGCGGAGGCTCCCGTGGCCTCGGACGCTCCTCCTAGCTAGCGGCCGCCGCCCGCCGCCGCT  
GCGCCTCCAGCTCCTTCGCCCCGGCGGGCCCCGGCCGCCGCTTCCGGCAGCTCACCTGGGAAGCGCTCACCTGGGA  
CGCGCTCACCTGGGACGCGCTACCTGCCTCCGGGCGCCTGGGCTTCAGGATGAAGGACCGTCTGGAGCAGCTGAA  
GGCCAAGCAGCTGACACAGGATGATGATACTGATGCGGTTGAGATTGCTATCGACAACACGGCTTTTATGGACGA  
GTTCTTTTCTGAGATTGAGGAACTCGGCTTAACATTGACAAGATCTCAGAACATGTAGAGGAGGCTAAGAACT  
CTACAGTATCATTCTCTCTGCACCGATTCCAGAGCCAAAAACCAAGGATGACCTAGAGCAGCTCACGACTGAGAT  
TAAGAAAAGGGCCAACAACGTCCGGAACAACTGAAGAGCATGGAGAAGCATATTGAAGAAGATGAGGTCAGGTC  
ATCGGCAGACCTTCGGATTTCGGAATCCCAGCACTCTGTCTTTCTCGGAAGTTTGTGGAGGTGATGACCAAATA  
CAATGAAGCTCAAGTGGACTTCCGAGAACGCAGCAAAGGGCGAATCCAGCGGCAGCTCGAAATTACTGGCAAAAA  
GACAACCGATGAGGAGCTGGAGGAGATGTTGGAGAGTGGCAACCCGGCCATCTTCACTTCTGGGATCATTGACTC  
ACAGATTTCCAAGCAAGCCCTCAGTGAGATTGAGGGACGACACAAGGACATTGTGAGGCTGGAGAGCAGCATCAA  
GGAGCTTCACGACATGTTTATGGACATCGCCATGCTGGTGGAGAATCAGGGTGAGATGTTAGATAACATAGAGTT  
GAATGTCATGCACACAGTGGACCACGTGGAGAAGGCACGAGATGAAACGAAAAAAGCTGTGAAATACCAGAGTCA  
GGCCCGGAAGAAATTGATAATTATCATTGTGCTAGTAGTTGTGTTGCTGGGCATTTTAGCATTGATTATTGGACT  
TTCCGTTGGGCTGAATTAAAGAGTGGCCTAAGAGGCTGCTGCACTGAAATAAACTGATTTCACTCCAGACTGGTGT  
GGCCACCCCTGTCTTCAGATGAGAATGGAGTCTGAATGGCCTTCTGAGAGCGAGTGCACCCGTTCTTTTGT  
CCTTGCAACCACCCCTTGACCTGACTCAGCTAACAATCTAGCCCTGGGGGAATGTGATCTACCTGATGCGACCC  
GAGTTCTCCCCAGAGCCTCCTCTGCCCCACCAGCTCTCAAGTACCTTTTCTCCTGGACTGTGTGGACCCACCCA  
GCTTTCTTCTCCTGTTGTGTGTGTCAGATTATGCCTTGCCTTGGGAAAGCTCTTGTGAGACTCTCCCAAGGTGC  
TGTATTTTTCTACCTCATGGAGTATTCTCCAGAACTGCAATGTATTTTTTTAGGGGAGTATCTTTAACAAGC  
AGAATGATTCTTCTAAGTTTGGCAACAAGAAGGCTTGGATCTGAGTCTTCTACCTGGCAGGATGCCAATCCTGTT  
TGTTGTCCGTATGTCTGAAAACATGAGGGACTGGCAGATGTCAATTTTGGTCTAAAGAGCTGACTTGTTTGAAAT  
TCAGCCTTAAATTAAGCTCTTAGTTGTTTCACTTGGGGGGCAACTTTGATTTTTCTCTGTGTTGTAGTCTCTCAT  
ATTTACTCAAGGAGGGACCAGGATGATACAGTCATCTGAGGTTATGCTTTGCAAAAGGCTGACGGTATGGAATAT  
GTTTCCATGTCTGAGTCTTAGAACTGGCTGCTCATTGTTAGAAAAGTGATGCTTTGTGAGACTATTGTCTTGGGG  
CCAAAAATAATCAGGGATTTTAAATTGGGCAAGGGACAAGGTGCTAGAATCCTAAGCTCTGGAAATATTTTATGA  
CACTGGTGTATTCACTCATGTGTTCCAGATGTATTCTAATTGTGTATGAAATGTATGTACACATAAGTGTGTGTG  
TCTCAGGAAGTAGGAAATAAAATGGAAGCTATTATGACCTCAAAAAAAAAAGCCAACCTTTGAGCTAGGATAAA  
AATTGGGTAAAGGACATTTGCTTACCTGCAAATGAATCACTGTGGAAATGTGATCTTCCCATATCATCAAGAAAC  
TTGTTTTCTGGATGAATACTGGGAGAATAAAATGAGAACTCTGGAGTGAGCTAAATTGATCCCAATTAAGTTTTT  
CTGCTTAGCAGACAGAAGGTATAATTTTTTGACACCCCTTTCCACCTGGTGCCTATGCTAGGCTTGTCTGAGAA  
CATCCCTCAGTAACTTGATATTCACATGACCTACAGGATGTCCCATCTGCAGGGCTGAGTCAGTTGGGGAACACC  
AGAGGCTACACAGTAGCTCTTCTGCTACTCGGTAAATGAGCTTGGCAGGTTCTTTGTCTCACTGAATTCTTATC  
ATGGAAACAGCAGCAGCAGCCGCTAGGAAATCTTCAAGTGATGTCTGTGCTAACCAGTGGAATCCCTTAG  
ATCCCTGCTGGTCTCTGGCAGTCTCCTTGATTTTGGGTACCATGTATATTTCCGCTTTGACTTTAACGCTTTC  
TAGGATAGGGTAAGCACCCCTTAATTCAGGCACTGTCCATTAGCTTCTTTGCAAAGGCTACTTATGGCCGGTCAC  
AATCCAGCACTCAGACAGAGCCAAGGCAATATCCTCTTGCCCATGGCTATGATGTCAGACAGTGGATGGGCTCCA  
GCAACAAGAGACAAAATAACTAAAGGCCTTTGCTCTCCTCTGACATTGAGGCCTGGGGCTTACAGTTTGAATAC  
AACATGTGAAGGTTTTTGTGTTGTTTGTATTTTTTAGATGTAAACTTGATTATTTTATTGCTAATTTAAAAATA  
AAAATGACTTTGTATTGATTGTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 949**

CGGCACGAGGCAAGTGACGCCGAGGGCCTGAGTGCTCCAGTAGCCACCGCATCTGGAGAACCAGCGGTTACC**ATG**

GAGGGGATCAGTATATACACTTCAGATAACTACACCGAGGAAATGGGGCTCAGGGGACTATGACTCCATGAAGGAA  
 CCCTGTTTCCGTGAAGAAAATGCTAATTTCAATAAAATCTTCCTGCCACCACCTACTCCATCATCTTCTTAACT  
 GGCATTGTGGGCAATGGATTGGTCATCCTGGTCATGGGTTACCAGAAGAAACTGAGAAGCATGACGGACAAGTAC  
 AGGCTGCACCTGTCAGTGGCCGACCTCCTCTTTGTCATCACGCTTCCCTTCTGGGCAGTTGATGCCGIGGCAAC  
 TGGTACTTTGGGAACTTCCTATGCAAGGCAGTCCATGTCTACACAGTCAACCTCTACAGCAGTGTCTCATC  
 CTGGCCTTCATCAGTCTGGACCGCTACCTGGCCATCGTCCACGCCACCAACAGTCAGAGGCCAAGGAAGCTGTTG  
 GCTGAAAAGGTGGTCTATGTTGGCGTCTGGATCCCTGCCCTCCTGCTGACTATTCCCGACTTCATCTTTGCCAAC  
 GTCAGTGAGGCAGATGACAGATATATCTGTGACCGCTTCTACCCCAATGACTTGTGGGTGGTTGTGTTCCAGTTT  
 CAGCACATCATGGTTGGCCTTATCCTGCCTGGTATTGTCTATCCTGTCTGCTATTGCATTATCATCTCCAAGCTG  
 TCACACTCCAAGGGCCACCAGAAGCGCAAGGCCCTCAAGACCACAGTCATCCTCATCCTGGCTTTCTTCGCCTGT  
 TGGCTGCCCTTACTACATTGGGATCAGCATCGACTCCTTCATCCTCCTGGAAATCATCAAGCAAGGGTGTGAGTTT  
 GAGAACACTGTGCACAAGTGGATTTCATCACCGAGGCCCTAGCTTTCTTCCACTGTTGTCTGAACCCCATCCTC  
 TATGCTTTCCCTGGAGCCAAATTTAAACCTCTGCCCAGCACGCACTCACCTCTGTGAGCAGAGGGTCCAGCCTC  
 AAGATCCTCTCCAAAGGAAAGCGAGGTGGACATTCTGTTTCCACTGAGTCTGAGTCTTCAAGTTTTCACTCC  
 AGCT**TAA**CACAGATGTAAGAGACTTTTTTTTATACGATAAATAACTTTTTTTAAGTTACACATTTTTTCAGATATA  
 AAAGACTGACCAATATTGTACAGTTTTTTATTGCTTGTGGATTTTGTCTTGTGTTTCTTTAGTTTTTCGTGAA  
 GGTTAATTGACTTATTTATATAAATTTTTTTTGTTCATATTGATGTGTGTCTAGGCAGGACCTGTGGCCAAGT  
 TCTTAGTTGCTGTATGTCTCGTGGTAGGACTGTAGAAAAGGGAAGTGAACATTCCAGAGCGTGTAGTGAATCACG  
 TAAAGCTAGAAATGATCCCCAGCTGTTTATGCATAGATAATCTCTCCATTCCCGTGGAACGTTTTTCCTGTTCTT  
 AAGACGTGATTTTGTGTAGAAAGATGGCACTTATAACCAAAGCCCAAAGTGGTATAGAAATGCTGGTTTTTCAGT  
 TTTCAGGAGTGGGTTGATTTACAGCACCTACAGTGTACAGTCTGTATTAAAGTTGTTAATAAAAGTACATGTTAAA  
 CTTAAAAAAAAAAAAAAAAA

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**FIGURE 950**

MEGISIYTS DNYTEEMGSGDYDSMKEPCFREENANFNKIFLPTIYSIIFLTGIVGNGLVILVMGYQKKLRSM  
YRLHLSVADLLFVITLPFWAVDAVANWYFGNFLCKAVHVIYTVNLYSSVLILAFISLD RYLAIVHATNSQRPRKL  
LAEKVVYVGWIPALLLTIPDFIFANVSEADDRYICDRFYPNDLWVVVFQFHIMVGLILPGIVILSCYCIISK  
LSHSGHQKRKALKTTVILILAFFACWL PYYIGISIDSFILLEIKQGCEFENTVHKWISITEALAFFHCCLNPI  
LYAFLGAKFKTSAQHALTSVSRGSSLKILSKGKRGGHSSVSTESESSSFHSS

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**FIGURE 951A**

AAGATGGCTGCCACGGGGGCTCCGCGGCTCCTCGGCGCTGAAGGGTTAATTCAACAGTTCACCACCATTACC  
GGTGCAAGTGAAAGTG TAGGAAAACATATGCTTGAAGCGTGCAACAATAATCTGGAAATGGCAGTCACTATGTTT  
TTGGATGGTGAGGAATCGCTGAAGAGCCAGTACCAGTTTCAAGTGTCTCTACTGTCAGACCACACACAGAA  
GAAGAAGTTTCGTGCCCCAATTCCTCAAAAGCAGGAAATACTGGTGAACCAGAACCATTATTTGGTGCTCCTAAA  
AGACGACGGCCTGCACGTTCAATTTTTGATGGTTTTCCGGGATTTTCAGACTGAACTATTTCGGCAAGAACAAGAA  
TTAAGAAATGGAGGAGCTATCGATAAGAAATTAAC TACCCTTGCAGATCTATTCCGGCCACCCATTGATTTGATG  
CATAAAGGCAGCTTTGAAACAGCCAAAGAGTGTGGCCAGATGCAAAATAAGTGGCTGATGATAAACATTCAAAT  
GTTCAAGACTTTGCATGTCAGTGCCTCAACCGCGATGTGTGGAGCAACGAAGCTGTGAAGAATATTATCCGGGAA  
CATTTTCATTTCTGGCAGGTTTATCATGACAGTGAGGAAGGTCAGAGATACATACAGTTTTATAAGTTAGGGGAT  
TTCCCTATGTTTCCATATTGGACCCACGGACAGGTCAGAAGCTAGTAGAATGGCACCAGTTAGATGTATCTTCT  
TTCTTGGACCAAGTGACGGGATTTCTGGGTGAACATGGACAAC TGGATGGACTTTCTAGCAGTCCCCCAAAAA  
TGTGCCCCGTTTCAGAGAGCCTTATAGATGCAAGTGAAGACAGCCAGCTAGAAGCTGCCATCAGAGCCTCCTTACAA  
GAAACACATTTTGATTCAACACAGACAAAACAGGATAGCCGCTCAGATGAAGAATCTGAATCTGAACTTTTTCT  
GGCAGTGAGGAGTTTCATATCCGTTTGTGGCTCTGATGAAGAAGAAGAGGTAGAGAATCTTGCCAAGTCCAGAAAG  
TCTCCCCACAAAGATTTGGGGCATAGAAAAGAGGAGAATAGAAGGCCGCTGACTGAGCCACCAGTCAGAACTGAT  
CCTGGAACAGCCACAAACCACCAAGGATTGCCAGCTGTGGATTTCAGAGATACTGGAGATGCCACCTGAAAAAGCA  
GATGGAGTAGTGGAGGGGATAGATGTAAATGGACCAAAAGCACAGCTGATGTTGCGGTATCCAGATGGAAAAAGG  
GAACAGATCACTCTTCCAGAGCAAGCTAAACTGCTAGCTTTGGTGAAGCACGTGCAGTCTAAAGGATACCCAAAT  
GAACGTTTTGAACTTCTACCAACTTTCCTCGAAGGAAATTATCTCATCTGGACTATGATATTACATTGCAAGAG  
GCAGGCCTTTGTCTCAAGAGACTGTCTTTGTACAGGAAAGAAAT **TAA**ACCATGGCTTGACCTCTCTCAGCTTA  
CCCCTTTTTCCCTTTTCTGTGAGATACATGTC ACTAAGTATGCATTTTGGCTCATAGGACCACAGAGCCAAAG  
TTGGGCAAGCAAGTCACCTTCCTTCTCTTATTTCTTGATCTCTCTATAATCAGTCTCTTCTCCCCCTTTGTTT  
CTTTCTCTCTTCTGTTTTCTCGCTCCCCACTCCGTACCCTTCTGCCTCCCCCTCCCCCACACTTTTCTTTCTT  
ACCTAATCTGGTGACCAAACTGAAGTGAAGGATAAGACCTCTCCTAGTACTAGCAGCAGGAATTGTGTGTTCCA  
GTAAGTGGTCTCTTGCACGGCACTTTTTTGGGATCAAATGTTAACGTTACTCCCCAGACTCTTCGGGCAAAGGAA  
TGGCTAGATTTCAGAGTAAGAACAACCCTCCCTTTTTTGTAAAGTCCCCGTGTTTAGCAGGGAGAAGAAATTCTCTA  
ACATGGGTTTTGGTTTTGTTGTTCTTTCATGTGGAATGTGCTTAACAAAATATCCAGGCTTTTGTTTACGTGG  
AAAAAGCATCCCTTGTAATGATTGCTCATCTACTTAAAAACCTTTTTCAAAGGATTTTCATGTTCCAGCTATA  
AGGACTATTTCCATGACGTGTTATTGGCAGAATGAGTGTTAAATATGGAGCATATAGCATGGGGTGACTTTTCATT  
GTCCTAACCTGAGACAGTTTTTCTTATTACTCTGTATTGATCTCTAGTCCCAAGATGGACATGAAGTGAACCT  
ATCGTGGTGACTGGGATAGGAAGGTGCTTGCTATTTTTGCCAGCACAGCATATTAGTTCCTTTGGAGCCCTCCAT  
TGTCTGAGTCTGCAGTGATCTGTAGGAAGGCAGCTGGTCAATAATCATGTAGTACAA TGGCTTGAATTGTAACC  
ACTATGGTTATTGATTGTCCTGTGTGTTTTCAGGCATACTTAGGTATGTCCCTGGGGAAAAAGAAAACCATTCAG  
CTGAGAGTTGCTAACCATGTTCTTTTGGTTAGAAATAATGGTTCAATTTTTTGCCCTGGTTGGAATAGTCTCTAA  
AAGGCTCTGGTGACTGAATTGAACATGAGTCCGCATGCTGTTTTCTTTCAAAGGTATCAAACGGAAAGCCTCT  
CTAAGGGGAAGACCTTTCAACTCCATT CAGAAGACAACATTTAGTAAGGAGGATGGCGGAGGTTACTAGTAATTT  
TCAGATGTCTTGGGCTTTTTCTGCCAACAAAACCCAAAATCAAATTAGAGTTGGTGAAAGCTTTCTTCAGTGTTT  
TTAGAAGAGGCCATCTTGAATCTGTAGAATACCATTTACACATCAACTTCACCTATGCTCATTTCTGATTTTGA  
GCTTAAATGGAGTCCTCTGAAGGGGGGGTAGTCGTGATTCTGGTGGCAAACTAGAACTTTTAAC TTGTAAATG  
AAAAATATTAAATGGACCTTTTTGT CAGTTGAGGATTTAGATTGATTCTTTTATCTGAGGAGCGTATGTTCTCA  
GATGTTGCGTAGAGACCTTTAGGTTTTCTACTACTTTAAGATTGCTCTCTTGGCAATTAGGGGATTTGGGAAAAG  
AAGAAAAAAGATGCCATGTGTTGCTAGTACACAGTTATAGGATATGGTTTCTAATGGTTGAATTTTGAGGAAC  
CTCCCTAAAGAATGAGTTTTATATCTCCTCAAGGAAATCATGGAAAAATCTGTTTATTCTTCAGTGAGTCCTTT  
GAATTAATGTTCTTAAATTTTTTTCTAAGTCTGTGTAAGTGCTTATGTATAAGTATATAATTGTATAAATATTTA  
TAAATATATTTATATAATTACGGTTTTCA TTTCTACCTTGAGTCAAAGTTCTGTCTTTAGATTGGTGACTGAGTAA  
TACTTACACTTTGGTGTTTTTTCTTAGGTTCTTGAGGCTTACTTAACTAGCAGCTTCTGATTTATTGAGTGAAAG  
ATGGTTTTCTATGTTAATTCCTCAGTTGCATCTCTGAAC TTGGATAACATACTTGCCGTTTGAAAAATAGAGCTGT  
ATACTGTCAAAGGTGCACTGGAGGGTAAACATTTGTTGGTAGTAGACAAGCTCAGAAATCCAAAAATT CAGGGA

GGGCACAGGGTAAGAAGAGAGGTTTGGCTCAGCTTTGTGCTCTGATGGCACCCATCTGTACTCCAGCAAAGTCATA  
GCTGAAGCCCAAATCGCTCAAACGTGTGAAGTCAATCATTTTTCTATAGGGCTCTGTTTCTTTTCTTTACCTT  
CTAGCTTCTCTTGATAAAACAGTTGGGAGAAGTGCCAACGTGTTTCATCAGTGAGAGGGTGTGGTTCTTTCCGATA  
TGTTTCAGCACGTGCATATTCATTTATGAGAAACCAAAGTAACTTCTTCAACTCGGGTTACTGTGGGATGATTAAG  
TAGATATAAAGTGATTTAAAGACAGCATGGTACTTCACTCAGCTTAACATGCAGCTGGGATGTCTACAATACA  
AGATGTGGTGGGTTTTATTTTATTTTATTTTGAGGCAGGAGTGTAATTATCTTAGGGTTGATATAAAGGCCCATG  
GGAAGAGTTACGGATTGTACATGGGAAGAATCCATAAGGAGTATTGCCTTGCTCAAGAATTTAATCCGCTGACAG  
TATGCTTCTTCCAGTTTGCCTTACTTCCTCTGCAAGTTTCTTTGCTCCTTAGGGCAGAGGTTTTATTGAATAGAT  
TAAATGAGGTCAGTAAGATTAGTTAAAAATAGTCATTCCCTTGTTGGGTGTTGGACACAGCTTGAAAGGAGTGTTTA  
AAAAAAAAAAGCTAGGGAGGAAAAGAACAAGAAAGATAGACTTCGAGAGTGATAAGAGAAAAATACAGGGAGATG  
GAATGGAACTACCAGGAAGGCCGGGCGCGGTGGCTCATGCCTGTAATCCCAACACTTTGGGAGGCGGAGGTGGG  
CAGATCACCTAAGGTCAGGAGATCGAGGCCAGCCTGAGCAACATGGTGAAACCCGCTCTCTACTAAAAATACAAA  
AATTACCTGGGTGTGGTGGCGTGCACCTGTAATCCCAGCTACTCAGAGGCTGAGGCAGGGGAATGGCTTGAACCT  
GGGAGGCAGAGGTTGCAGTGAGCCAAGATCGCACCATTACTCCAGCCTGGGCGACAAAGCGACACTCCATCTC  
AAATTT

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**FIGURE 952**

KMAAHGGSAAASSALKGLIQQFTTITGASESVGKHMLEACNNNLEMAVTMFLDGGGIAEEPSTSSASVSTVRPHT  
EEVRAPIPQKQEILVEPEPLFGAPKRRRPARSIFDGFRDFQTETIRQEQLRNGGAIDKKLTTLADLFRPPIDLM  
HKGSFETAKECGQMKNKWLMINIQNVQDFACQLNRDVWSNEAVKNI IREHFIFWQVYHDSEEGQRYIQFYKLG  
FPYVSILDPRTGQKLVEWHQLDVSSFLDQVTGFLGEHGQLDGLSSSPKKCARSES LIDASEDSQLEAAIRASLQ  
ETHFDSTQTKQDSRSDEESESELFSGSEEFISVCGSDEEEVENLAKSRKSPHKDLGHRKEENRRPLTEPPVRTD  
PGTATNHQGLPAVDSEILEMPPEKADGVVEGIDVNGPKAQLMLRYPDGKREQITLPEQAKLLALVKHVQSKGYPN  
ERFELLTNFPRRKLSHLDYDITLQEAGLCPQETVVFQERN

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**FIGURE 953**

GGAGGGCCCCGGCGGACAGCGGAGGCAGAGAGGAAGGCGGTTCTGAGAGCTTCAGAGAGCGATGGAAAGCAAAA  
**TG**GGGTGAATTGCCTTTAGACATCAACATCCAGGAACCTCGCTGGGACCAAAGTACTTTCTGGGCAGAGCCCGGC  
ACTTTTTCAGTGTACTGATCCTCGAAATCTGCTGCTGTCCGGGGCACAGCTGGAAGCTTCTCGGAACATCGTGC  
AGAACTACAGGGCCGGCGTGGTGACCCAGGGATCACCGAGGACCAGCTGTGGAGGGCCAAGTATGTGTATGACT  
CCGCCTTCCATCCGGACACAGGGGAGAAGGTGGTCCTGATTGGCCGCATGTCAGCCAGGTGCCCATGAACATGA  
CCATCACTGGCTGCATGCTCACATTCTACAGGAAGACCCCAACCGTGGTGTCTGGCAGTGGGTGAATCAGTCCT  
TCAATGCCATTGTAACTACTCCAACCGCAGTGGTGACACTCCCATCACTGTGAGGCAGCTGGGGACAGCCTATG  
TGAGTGCCACCAGCTGGAGCTGTGGCCACGGCCCTGGGACTCAAATCCCTCACCAAGCACCTGCCCCCTTGGTCG  
GCAGATTTGTGCCCTTTGCAGCAGTGGCAGCTGCCAACTGCATCAACATCCCCCTGATGAGGCAGAGAGAGCTGC  
AGGTGGGCATCCCGGTGGCTGATGAGGCAGGTGAGAGGCTTGGCTACTCGGTGACTGCAGCCAAGCAGGGAATCT  
TCCAGGTGGTGATTTCAAGAATCTGCATGGCGATTCTGCCATGGCCATCCCACCAGTATCATGGACACTCTGG  
AGAAGAAAAGACTTCTGAAGCGCCGCCCTGGCTGGGGGCACCCCTGCAGGTGGGACTGGTGGGCTTCTGCCTGG  
TATTTGCAACCCCCCTGTGCTGTGCCCTATTCCCCCAGAAGAGCTCCATACACATAAGCAACCTGGAACCAGAGC  
TGAGAGCTCAGATCCATGAGCAAAACCCACAGCGTTGAAGTGGTCTACTACAACAAGGGGCTTT**TG**AGGAGGGTCAG  
CCTCTGTCCCTCCCTCACTTCTTGGGCTGCTGCTTTAGTGAGTCAATGTCACCCCTACCAGTGGCTATCTGC  
CTAGCACTGGGCAGGGGCCCTTGGTGGGCAGATGGCAATTGAGGGTAGCAACCTATTAGGGTGGGGGAGGGACCTC  
CATAAGGCTTTTCTCCCTTCTCTGGTTTTCAAAGATCAGAGCACATAACCCCTCCTGTGCTTGAGTGTCCATGCA  
TATACATACATGATACACATGTGTATGTGTACATTGGGTCTGAAAGCTAGAAGCAGGCATGCTAGCCTAGTATG  
TTCTGACATCTGGCTTCCCTTCTCAGCCTCATGTCCACCTGCCTGCCAGCCAGGCTACAGGTGTGACTTCCTTCT  
CTAAACTGTTACACCAGCCAAGTTATTTTTGATGGCACCTCATCCCTTCTAGAAATAGGAGGAGCCCCAGGATCT  
CAGGACAGAGACTTATAGACACTAGTAGGACAAAGCGGGCTGAATCCTTCAGGTTTCTGATACCTAGCTCCCCAA  
GCTGACTGGGCTGGCAGAGGAGAACATGTTGAGACAAGGGAGGCAGGGGACTTATGCATCCCTCAGTGCCATCCC  
TTGTATCCTGGAATAGCTCCATTTCCCCTCCTCCTCTTACCAGACAAAGGAGTGCCTGTGTCTGTACTGCCCT  
CGCTGTCTCCCCCACCACCCTACTTGACAGCGTGGGCATCTTCAGGCACAGCCTTGGGAGTTCCTGGTGTGCTCT  
GACATCATGACCTCAAATCTAAATCCTCCAATCCCAACTCCCTTTCCCAAACAAAAGCCACAGAGGCAGAGCAA  
GCATTCCCCTTTAAGAGCTTCCACTGCACCCCTCCCAAGGGACACAGCGGTAGGAATGGTGCTTAAACTCCACA  
GGTATCAGAGAGGGTGTAAGTAGGACATCCTCAAGGGCAGCTAGGCCCCGAATGTACAATGTTAAGACAGGGAAT  
TTTGTGTTCCATTGACTTTTTTTTTTTTTTTTAAATGGAGTTTCACTATTTTGCCAGGCTGGAGTGCATGGTGC  
GATCTTGGCTCACTGCAACCTCTGCCTCCTGGGTTCAAGTGATTCTCTTGCCTCAGTCTCCCGAGTAGTGGAAT  
TACAGGTGTGTCTACCACATCTTGCTAGTTTTGTATTTTTAGCAGAGATGGGGGTTTTACCAGTTGGCCAGGC  
TAGTCTCGAACTCCTGACCTCAGGTGATCCACCTGCCTTGGCCTCCCAAAGCACTGGGATTACAAGCATGAGCCA  
CTGTGCCAGCCTGTTCCACTGACATTTCTTAGACATTACAGCAAAACCCACCTTAACCTCTTTTCTTTCTTGA  
GGGTGGTCTGTCCCCACCTCCACCCTCCACCCCTGGAAGAGGAAGGGCCCGGCATCAGTGGCTAGTCCAA  
ATAAAATATGGGCTTGGGGATGGAATGGGTGGTGGTAAGTTCACAGAGTGTAGTTAGATCCCAACTCCCATGACC  
TCTGGCTTCAGTGGTGGGTGGGGCAGGGCAGATGAAAGGGCTTCAGTGGGAACCTCTGAGAGCATTTTCTGTTC  
CCCCATCAACCGCCCCCAGTGATAACATCTGTGAAGCCAGCCATTACTCAATAAACTGCAAACTTGTCTAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 954**

MGELPLDINIQEPRWDQSTFLGRARHFFTVTDPRNLLLSGAQLEASRNIVQNYRAGVVTPGITEDQLWRAKYVYD  
SAFHPDTGEKVVLIGRMSAQVPMNMTITGCMLTFYRKTPTVVFWQWVNQSFNAIVNYSNRSGDTPITVRQLGTAY  
VSATTGAVATALGLKSLTKHLPPLVGRFVPFAAVAAANCINIPLMRQRELQVGIPVADEAGQRLGYSVTAAKQGI  
FQVVISRICMAIPAMAIPPLIMDTLEKKDFLKRRPWLGAFLQVGLVGFCFVFATPLCCALFPQKSSIHISNLEPE  
LRAQIHEQNPSVEVVYYNKGL

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**FIGURE 955**

TGCAGGAGTTCATGATCCTCCAGTCGGTGCAGCAAACCTTCAGGGAAGCCATGCGCATTGGAGCAGAGGTTTACC  
ACAACCTGAAGAATGTCATCAAGGAGAAATATGGGAAAGATGCCACCAATGTGGGGGATGAAGGCGGGTTTGCTC  
CCAACATCCTGGAGAATAAAGAAGGCCTGGAGCTGCTGAAGACTGCTATTGGGAAAGCTGGCTACACTGATAAGG  
TGGTCATCGGCATGGACGTAGCGGCCTCCGAGTTCTTCAGGTCTGGGAAGTATGACCTGGACTTCAAGTCTCCCG  
ATGACCCCAGCAGGTACATCTCGCCTGACCAGCTGGCTGACCTGTACAAGTCCTTCATCAAGGACTACCCAGTGG  
TGTCTATCGAAGATCCCTTTGACCAGGATGACTGGGGAGCTTGGCAGAAGTTCACAGCCAGTGCAGGAATCCAGG  
TAGTGGGGGATGATCTCACAGTGACCAACCCAAAGAGGATCGCCAAGGCCGTGAACGAGAAGTCCTGCAACTGCC  
TCCTGCTCAAAGTCAACCAGATTGGCTCCGTGACCGAGTCTCTTCAGGCGTGCAAGCTGGCCCAGGCCAATGGTT  
GGGGCGTCATGGTGTCTCATCGTTCGGGGGAGACTGAAGATACCTTCATCGCTGACCTGGTTGTGGGGCTGTGCA  
CTGGGCAGATCAAGACTGGTGCCCTTGCCGATCTGAGCGCTTGGCCAAGTACAACCAGCTCCTCAGAATTGAAG  
AGGAGCTGGGCAGCAAGGCTAAGTTTGCCGGCAGGAACCTCAGAAACCCCTTGGCCAAGTAAGCTGTGGGCAGGC  
AAGCCTTCGGTCACCTGTTGGCTACACAGACCCCTCCCTCGTGTGTCAGCTCAGGCAGCTCGAGGCCCCGACCAA  
CACTTGCAAGGGTCCCTGCTAGTTAGCGCCCCACCGCCGTGGAGTTCGTACCGCTTCCTTAGAACTTCTACAGAA  
GCCAAGCTCCCTGGAGCCCTGTTGGCAGCTCTAGCTTTTGCAGTCGTGTAATGGGCCCAAGTCATTGTTTTTCTC  
GCCTCACTTTCCACCAAGTGTCTAGAGTCATGTGAGCCTCGTGTGTCATCTCCGGGGTGGCCACAGGCTAGATCCCC  
GGTGGTTTTGTGCTCAAAATAAAAAGCCTCAGTGACCCATGAGACGGAGATCTCGCCGGCTTTACGTTACCTCG  
GTGTCTGCAGCACCTCCGCTTCCTCTCCTAGGCGACGAGACCCAGTGGCTAGAAGTTCACCATGTCTATTCTCA  
AGATCCATGCCAGGGAGATCTTTGACTCTCGCGGAATCCCACTGTTGAGGTTGATCTCTTCACCTCAAAATAAA  
AAGCCTCAGTGACCCTGCATTTGAGGGTTCAGCAGCATATACCTTCACACTAGGTTTCAGAGCCTGGGAAGAGGA  
ATATTAAGACATCTTAACAACAAACCACAACATTGCCTGCATGTCTAAAAGAAAATATGGGCCTGGTGTGGTGGC  
TCACACCTGTAATCCCAACACTTTGGGAGCCCGAGXCAG

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**FIGURE 956**

CCAGGGCCTGACTAAACCTGGAGACTCGGGTGGCCGAGGGGCTTCATACCAGCTGAAGAGCGACAAGCCGCTGGC  
AGCCGCGGATCTCACC GCCGCTCAGGGTTTTTAGAACTTCAGCCATAAAAAATGCGGCAGAATTTTCCTTGATCATA  
TCGGTGGTACCCGCTCTGTTTTCTTGTCGAACTGTGATACGATCCTGACCAACCGCTCAGAACTCATCTCCACTC  
GTTTCACAGGCGCCACTGGCAGAGCATTCTTTTTTAACAAGGTAGTTAACCTGCAGTACAGCGAAGTTCAAGATC  
GGGTCATGCTCACTGGCCGCCACATGGTTCGAGATGTGAGCTGCAAAAACTGCAATAGCAAACTGGGATGGATCT  
ATGAGTTTGCCACTGAAGACAGCCAGCGATATAAGGAAGGCCGCGTGATCCTGGAACGTGCTCTAGTTCGAGAGA  
GTGAGGGCTTTGAGGAGCATGTACCATCTGATAACTCTTGAAGATACAGAGAGAAATCCATCTTTTCCCAGGTCT  
CCTTCACTGAAAACAAAAATCTACTTACATACACTGTACCTTAGCATCAGAGTCGGATTAATGAACTGCGGAAC  
AAGAGGTTGTGAGAATCTAAGATGGAACCTTTCTTTCTTTCTTTCTTTTTTTTAAATTTTGTATTTTCCATCCA  
ACAGCAGTGTGTAGAGAGAAATATTATGCAGATGCCGTTAATTTTTTACCCTATGTTTACATCTTGAGGCAGCAGA  
GTCTGTCTGCAGCTATGTGGTGAGCTATGTAAGGAAAAAATCTGGGCTGTTAGAGTGAAAAAGTGTGTTTTATG  
TCAATTGTGAAAGGAAAAATGTTAGGAGTATGGTTTTTAACTTGGGCTTCATTTTAACTTTTTTTTTTAAACCC  
AGTTATTTCACTTGATTGTGCTAGCTTCAGAGAAGAGATCCGAATCTGTGCCCAGCGCTAAAGGCTCAGTGTTAGC  
ATGGCTTGTGCTGGCCGGTGTGCCATATTCTTGTGGAGATGAACCGTAGCACCAGAGCCCATCTTCCTTGTCA  
GTCTTGGCCCCAAGATGTCACCATTCCTAGTTATTTGTACCCACATAATTGGTGTTGATTGGAACTTTTTCTGA  
GATGGGACAGAAGTGTGGGTTGTCTTTTTCCATGTAACCTTAAGCATAGTAATATAAAATAAAGTAATAGTTGGAT  
GCTTTTGGTCCTGTGTTGCTTTTAAAAACACCTTATAAAAGAGGAGAGTATTTGATAAGCAATTTTCATAGTAGT  
AAAGTTTTTTTTTCATCTCTTAACTAAATTGACCATGCATATAATATTCTTTGTTTAAATGAAAGCATACTGTTG  
AAACCCGCAGTGTTCATTTAGAAAACAGTTGAACAGAATGTCAATGTGCATTCATGCAAAAAAACATTTAATCT  
GCATCTGTTTTAGAAAAGGGGGAATGAAGCAACTTGCTCAAAAATACTGCTTTACAAAGCATTTACGCCTTTCC  
CCCTCAGTTTTGCATTGATTTTTTGACAAGTCTGTAGAGCCTAATAGTTCCATCAAAGGCCTAGATCTCTTATT  
TAGCATTTTTTTTCAGCTCTTCTCTCAGAAGTTCAGCTGTTGAAACGAAAACTGTACTTTGTACCCTCACATACAA  
AGGGATCAAATTTGACCTGGTGTTATTTTAGCCCCAAATTTATGACATTACACAATATTAAAATGTAAATGTTTC  
TTTACCCAACTACTTCTAGATATTCTAGTATTTGCTTCTGGTGGAATTAAATGACGGTAAAATTTGGCTAATTAT  
TTGAATGAATGAATGGATGGATGTTTTGCATGCTCAATTTCTAGGTCCTTTGTCTAGAAAGGAAATTTGCCTCAG  
TTGAATTAGTGAAATATTTCTGTCGTTGATATTTAAAGTGACTTCTGAGTACAGTTAAGTTCCTCCTATTTGCCA  
CTGGGCTGTTGGTTAGAAAGCATAGGTAAGTATTAAGTAGGTATGATACTGCATTTGAAATAAGTGGACACAAAC  
TATCCTTTCTCCACCATGGACTCAATCTGAGAACAACAGCATTCAATTCATTTCATTTCCATACTGGCTTTTGAT  
TATATGCAGATTCCCTAGTAGCATGCCTTACCTACAGCACTATGTGCATTTGCTGTCACAATAAAGTATATTTGT  
CTTGCAAA

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**FIGURE 957**

MGRIFLDHIGGTRLFSCANDTILTNRSELISTRFTGATGRAFLFNKVVNLYSEVQDRVMLTGRHMVRDVCKN  
CNSKLGWIYEFATEDSQRYKEGRVILERALVRESEGFEHVPSDNS

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**FIGURE 958**

GGCACGAGGGAGAGAACTAGTCTCGAGTTTTTTTTTTTTTTTTTTTGGACAAGATGGCGGCAGGAGGCAGTGGCGT  
TGGTGGGAAGCGCAGCTCGAAAAGCGATGCCGATTCTGGTTTCCTGGGGCTGCGGCCCACTTCGGTGGACCCAGC  
GCTGAGGCGGCGGCGGCGAGGCCCAAGAAATAAGAAGCGGGGCTGGCGGCGGCTTGCTCAGGAGCCGCTGGGGCT  
GGAGGTTGACCAGTTCCTGGAAGACGTGCGGCTACAGGAGCGCACGAGCGGTGGCTTGTTGTCAGAGGCCCAAA  
TGAAAAACTCTTCTTCGTGGACACTGGCTCCAAGGAAAAAGGGCTGACAAAGAAGAGAACCAAGTCCAGAAGAA  
GTCACTGCTTCTCAAGAAACCCCTTCGGGTTGACCTCATCTCGAGAACACATCCAAAGTCCCTGCCCCAAAGA  
CGTCCTCGCCCAACCAGGTCCCCAACGCCAAGAAGCTCAGGCGGAAGGAGCAGCTATGGGAGAAGCTGGCCAAGCA  
GGGCGAGCTGCCCCGGGAGGTGCGCAGGGCCAGGCCCGGCTCCTCAACCCTTCTGCAACAAGGGCCAAGCCGG  
GCCCCAGGACACCGTAGAGCGGCCCTTCTACGACCTCTGGGCCTCAGACAACCCCTGGACAGGCCGTTGGTTGG  
CCAGGATGAGTTTTCTTGGAGCAGACCAAGAAGAAAGGAGTGAAGCGGCCAGCACGCCTGCACACCAAGCCGTC  
CCAGGCGCCCGCCGTGGAGGTGGCGCCTGCCGGAGCTTCCTACAATCCATCCTTTGAAGACCACCAGACCCTGCT  
CTCAGCGGCCACGAGGTGGAGTTGCAGCGGCAGAAGGAGGCGGAGAAGCTGGAGCGGCAGCTGGCCCTGCCCCG  
CACGGAGCAGGCCGCCACCCAGGAGTCCACATTCCAGGAGCTGTGCGAGGGGCTGCTGGAGGAGTCGGATGGTGA  
GGGGGAGCCAGGCCAGGGCGAGGGGCCGGAGGCTGGGGATGCCGAGGTCTGTCCCACGCCCCGCCCGCTGGCCAC  
CACAGAGAAGAAGACGGAGCAGCAGCGGCGGCGGAGAAGGCTGTGCACAGGCTGCGGGTACAGCAGGCCGCGTT  
GCGGGCCGCCCGGCTCCGGCACAGGAGCTGTTCCGGCTGCGCGGGATCAAGGCCAGGTGGCCCTGAGGCTGGC  
GGAGCTGGCGCGGCGGCGGAGGCGGCGGAGGCGGCGGAGGCTGAGGCTGACAAGCCCCGAAGGCTGGGACG  
GCTCAAGTACCAGGCACCTGACATCGACGTGCAGCTGAGCTCGGAGCTGACAGACTCGCTCAGGACCCTGAAGCC  
CGAGGGCAACATCCTTCGAGACCGGTTCAAGAGCTTCAGAGGAGGAATATGATCGAGCCTCGAGAGAGAGCCAA  
GTTCAAACGCAAGTACAAGGTGAAGCTGGTGGAGAAGCGGGCGTTCCGTGAGATCCAGTTGTAGCTGCCATCAGA  
TGCCGGAGACTCGCCCTTCAATAAAAAATCTCTTAGCTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 959**

MAAGGSGVGGKRSSKSDADSGFLGLRPTSVDPALRRRRRGPRNKKRGWRRLAQEPLGLEVDQFLEDVRLQERTSG  
GLLSEAPNEKLFFVDTGSKEKGLTKKRTKVQKKSLLLKKPLRVDLILENTSKVPAPKDVLAHQVPNAKKLRKEQ  
LWEKLAKQGELPREVRRARLLNPSATRAKPGPQDTVERPFYDLWASDNPLDRPLVGQDEFFLEQTKKKGVKRP  
ARLHTKPSQAPAVEVAPAGASYNPSFEDHQTLSSAAHEVELQRQKEAEKLERQLALPATEQAATQESTFQELCEG  
LLEESDGE GEPGQEGPEAGDAEVCPTPARLATTEKKTEQQRREKAVHRLRVQQAALRAARLRHQELFRLRGIK  
AQVALRLAELARRRRRRQARREAEADKPRRLGRLKYQAPDIDVQLSSELTDSLRTLKPEGNILRDRFKSFQRRNM  
IEPRERAKFKRKYKVKLVEKRAFREIQL

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**FIGURE 960**

GGGCTCTCTCCTTGTCTAGTCGGCGCCGCGTGC GGGCTGGTGGCTCTGTGGCAGCGGCGGCGGCAGGACTCCGGCA  
CT**ATG**AGCGGCTTCAGCACCGAGGAGCGCGCGGCCCTTCTCCCTGGAGTACCGAGTCTTCCTCAAAAATGAGA  
AAGGACAATATATATCTCCATTTTCATGATATTCCAATTTATGCAGATAAGGATGTGTTTCACATGGTAGTTGAAG  
TACCACGCTGGTCTAATGCAAAAATGGAGATTGCTACAAAGGACCCTTTAAACCCTATTAAACAAGATGTGAAAA  
AAGGAAAACCTTCGCTATGTTGCGAATTTGTTCCCGTATAAAGGATATATCTGGAACTATGGTGCCATCCCTCAGA  
CTTGGGAAGACCCAGGGCACAATGATAAACATACTGGCTGTTGTGGTGACAATGACCCAATTGATGTGTGTGAAA  
TTGGAAGCAAGGTATGTGCAAGAGGTGAAATAATTGGCGTGAAAGTTCTAGGCATATTGGCTATGATTGACGAAG  
GGGAAACCGACTGGAAAGTCATTGCCATTAATGTGGATGATCCTGATGCAGCCAATTATAATGATATCAATGATG  
TCAAACGGCTGAAACCTGGCTACTTAGAAGCTACTGTGGACTGGTTTAGAAGGTATAAGGTTCCCTGATGGAAAAC  
CAGAAAATGAGTTTGCGTTTAATGCAGAATTTAAAGATAAGGACTTTGCCATTGATATTATTAAGCACTCATG  
ACCATTTGAAAGCATTAGTGACTAAGAAAACGAATGGAAAAGGAATCAGTTGCATGAATACAACCTTTGTCTGAGA  
GCCCCCTTCAAGTGTGATCCTGATGCTGCCAGAGCCATTGTGGATGCTTTACCACCACCCTGTGAATCTGCCTGCA  
CAGTACCAACAGACGTGGATAAGTGGTTCCATCACCAGAAAACT**TAAT**GAGATTTCTCTGGAATACAAGCTGATA  
TTGCTACATCGTGTTTCATCTGGATGTATTAGAAGTAAAAGTAGTAGCTTTTCAAAGCTTTAAATTTGTAGAACTC  
ATCTAACTAAAGTAAATTCTGCTGTGACTAATCCAATATACTCAGAATGTTATCCATCTAAAGCATTTTTTCATAT  
CTCAACTAAGATAACTTTTAGCACATGCTTAAATATCAAAGCAGTTGTCATTTGGAAGTCACTTGTGAATAGATG  
TGCAAGGGGAGCACATATTGGATGTATATGTTACCATATGTTAGGAAATAAAATTATTTTGCTGAAAAAAAAAAAA  
AAAAAAA

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**FIGURE 961**

MSGFSTEERAAPFSLEYRVFLKNEKGQYISPFHDIPYADKDVFMVVEVPRWSNAKMEIATKDPLNPIKQDVKK  
GKLRYVANLFPYKGYIWNYGAIPTWEDPGHNDKHTGCCGDNDPIDVCEIGSKVCARGEIIGVKVLGILAMIDEG  
ETDWKVIAINVDDPDAANYNDINDVKRLKPGYLEATVDWFRYKVPDGKPENEFAFNAEFKDKDFAIDI IKSTHD  
HWKALVTKKINGKGISCMNTTLESFPFKCDPDAARAIVDALPPCESACTVPTDVVKWFHHQKN



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**FIGURE 962**

AGACGGGCTGCAAGAGGGAGCCGGCCCCGACGCGGACCGCTTCCCTGCAGTGCCCCGAGTCCCGGGCCCCGCGCCGC  
CGCCGCCCCGGCTCCGCTCGCGGCCCTCTGTCTGCAGGCGTGCCCCGGCGGCGGCGGAGAGCCGTCCTCGGCCGA  
GGAGGCTGGGAAACGCGAGCGCAGGCGGCAGAGAGGCCTCAACGCCGTCCCTTTCGCCACCGCCTTTTCCTTGCC  
TCGCGCCGCTGTGCATTTCTCTCCTTTTCTTTGTTTTTTTGGCCCCCTCGCGGGTGTGGGCATTGTTGGTTAGCA  
AAAGTGCAGCCTCAAGATGGCTGATGGCAACGAGGATCTGCGGGCTGACGACTTGCCTGGGCCAGCCTTCGAGAG  
CTATGAGTCCATGGAGCTTGCCTGCCCCGCTGAGCGCAGCGGCCACGTAGCCGTGAGCGACGGGCGCCACATGTT  
CGTCTGGGGCGGCTACAAGAGTAATCAAGTCAGAGGATTATATGACTTTTATCTGCCTAGAGAAGAACTATGGAT  
CTACAACATGGAGACTGGAAGATGGAAAAAATCAACACTGAAGGTGATGTTCCCTCCTTCTATGTCAGGAAGCTG  
TGCTGTGTGTGTAGACAGGGTGTGTACTTGTGTTGGAGGACACCATTCAAGAGGCAATACCAATAAGTTCTACAT  
GCTGGATTCAAGGTCTACAGACAGAGTGTTACAGTGGGAAAGAATTGATTGCCAAGGAATTCCTCCATCATCAAA  
GGACAAACTTGGTGTCTGGGTATATAAAAAACAAGTTAATATTTTTTGGAGGGTATGGATATTTGCCTGAAGATAA  
AGTATTGGGAACTTTTGAATTCGATGAAACATCTTTTTTGAATTCAGTCATCCAAGAGGATGGAATGATCATGT  
ACATATTTTAGATACTGAAACATTTACCTGGAGCCAGCCTATAACTACTGGTAAAGCACCTTCACCTCGTGCTGC  
CCATGCCTGTGCAACTGTGCGAAATAGAGGCTTCGTGTTTGGAGGCAGGTATCGAGATGCTAGAATGAATGATCT  
TCACTATCTTAATCTGGATACATGGGAGTGAATGAATTAATTCACAAAGGCATATGCCAGTTGGTCGATCTTG  
GCACTCACTAACACCAGTTTCTTCAGATCATCTTTTTCTCTTTGGAGGATTTACCACTGATAAACAGCCACTAAG  
TGATGCCTGGACTTACTGCATCAGTAAAAATGAATGGATACAATTTAATCATCCATATACCGAAAAACCAAGGT  
ATGGCACACAGCTTGTGCCAGCGATGAAGGAGAAGTAATTGTTTTTGGTGGATGTGCCAACAACTTGCTTGTCCA  
TCACAGAGCTGCACACAGTAATGAAATACTAATATTTTCAGTTCAACCAAATCTCTTGTACGGCTAAGCTTAGA  
AGCAGTCATTTGCTTTAAAGAAATGTTAGCCAACCTCATGGAAGTGCCTTCCAAAACACTTACTTCACAGTGTTAA  
TCAGAGGTTTGGTAGTAACAACACTTCTGGATCTTAAGGCTTCATAAAATAATGCCTATGATCACCTTGATGGAC  
AGCAATCCTGTAAACATCACAGAGTGGCATCATTTGTATAATTATATGCATTGTTGTAGTTTGCACCTGTTGGTT  
TTAATGTGCATGTGAATGGCCTAGAGAACCTATTTTTGTGTCTAAAGTTTACAATAAATGTATTTAACACC

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**FIGURE 963**

MADGNEDLRADDLPGFESYESMELACPAERSGHVAVSDGRHMFVWGGYKSNQVRGLYDFYLPREELWIYNMET  
GRWKKINTEGDVPPSMMSGSCAVCVDRVLYLFGGHHSRGNTNKFYMLDSRSTDRVLQWERIDCQGIPPSSKDKLGV  
WVYKNKLIFFGGYGYLPEDKVLGTFEFDETSFWNSSHPRGWNDHVIHLDTETFTWSQPITTGKAPSPRAAHACAT  
VGNRGFVFGGRYRDARMNDLHYLNLDTWENELIPQGICPVGRSWHSLTPVSSDHLFLFGGFTTDKQPLSDAWTY  
CISKNEWIQFNHPYTEKPRWLHTACASDEGEVIVFGGCANNLLVHHRAAHSNEILIFSVQPKSLVRLSLEAVICF  
KEMLANSWNCLPKHLLHSVNQRFGSNNTSGS

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**FIGURE 964**

CGGCGACTGACCGTGGTTCGTGGGCGGACGGCGGCTTGCAGCGTGGAGGAGCTGGGGTCGCTGTGGGTTCGCGAAGC  
AGAGCCCGGGACGTGCGCGCTTGGTGCACGATCCTGAAGGGGAGCTCCGAGGGGCCCCGGGTTCGCCAGGGCTGCTG  
CGGCCATTCCCGGAGCCCGGCGGGGGCCCCGCGAGATACTGGTTTAGGCCGTCCAGGGCTCCGGGCGCACCCGG  
TGGCCGCTGCTGCAGCGGAGGGAGCGCGGCGCGGGGGCTCGGAGACAGCGTTTCTCCCGGAAGTCTTCCTCG  
GGCAGCAGGTGGGAAGTGGGAGCCGGAGCGGCAGCTGGCAGCGTTCTCTCCGAGGTTCGGACCAATGCGCCCTGC  
AGCCCTGCGCGGGGCCCTGCTGGGCTGCCTCTGCCTGGCGTTGCTTTGCCTGGGCGGTGCGGACAAGCGCCTGCG  
TGACAACCATGAGTGGAAAACTAATTATGGTTTTCAGCACTGGCCTGAGACAGTATGCGAGAAAATTCAAAACGA  
CTGTAGAGACCCTCCGGATTACTGGACAATACATGGACTATGGCCCCGATAAAAGTGAAGGATGTAATAGATCGTG  
GCCCTTCAATTTAGAAGAGATTAAGGATCTTTTGCCAGAAATGAGGGCATACTGGCCTGACGTAATCACTCGTT  
TCCCAATCGCAGCCGCTTCTGGAAGCATGAGTGGGAAAAGCATGGGACCTGCGCCGCCAGGTGGATGCGCTCAA  
CTCCCAGAAGAAGTACTTTTGGCAGAAGCCTGGAACCTCTACAGGGAGCTGGACCTCAACAGTGTGCTTCTAAAATT  
GGGGATAAAACCATCCATCAATTACTACCAAGTTGCAGATTTTAAAGATGCCCTTGCCAGAGTATATGGAGTGAT  
ACCCAAAATCCAGTGCCTTCCACCAAGCCAGGATGAGGAAGTACAGACAATTGGTTCAGATAGAACTGTGCCTCAC  
TAAGCAAGACCAGCAGCTGCAAACTGCACCGAGCCGGGGGAGCAGCCGTCCCCAAGCAGGAAGTCTGGCTGGC  
AAATGGGGCCGCCGAGAGCCGGGGTCTGAGAGTCTGTGAAGATGGCCCAGTCTTCTATCCCCCACCTAAAAAGAC  
CAAGCATTGATGCCCAAGTTTTTGAAATATTCTGTTTTTAAAAGCAAGAGAAATTCACAACTGCAG

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**FIGURE 965**

MRPAALRGALLGCLCLALLCLGGADKRLRDNHEWKKLIMVQHWPETVCEKIQNDCRDPPDYWTIHGLWPKSEGC  
NRSWPFNLEEIKDLLPEMRAYWPDVIHSFPNRSRFBKHEWEKHGTCAAQVDALNSQKKYFGRSLELYRELDLNSV  
LLKLGKPSINYYQVADFKDALARVYGVIPKIQCLPPSQDEEVQTIGQIELCLTKQDQQLQNCTEPGEQSPKQE  
VWLANGAAESRGLRVCEGPFYPPPKKTKH

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**FIGURE 966**

CGGCGACTGACCGTGGTTCGTGGGCGGACGGCGGGCTTGCAGCGTGGAGGAGCTGGGGTTCGCTGTGGGTTCGCGAAGC  
AGAGCCCCGGGACGTGCGCGCTTGGTGCACGATCCTGAAGGGGAGCTCCGAGGGGCCCCGGGTCCGACGGGCTGCTG  
CGGCCATTCCCGGAGCCCGGCGCGGGGCCCCGCGAGATACTGGTTTAGGCCGTCCAGGGCTCCGGGCGCACCCGG  
TGGCCGCTGCTGCAGCGGAGGGAGCGCGGCGGCGCGGGGGCTCGGAGACAGCGTTTCTCCGGAAGTCTTCCTCG  
GGCAGCAGGTGGGAAGTGGGAGCCGAGCGGCAGCTGGCAGCGTTCTCTCCGAGGTTCGGCACCATGCGCCCTGC  
AGCCCTGCGCGGGGCCCTGCTGGGCTGCCTCTGCCTGGCGTTGCTTTGCCCTGGGCGGTGCGGACAAGCGCCTGCG  
TGACAACCATGAGTGGAAAACTAATTATGGTTCAGCACTGGCCTGAGACAGTATGCGAGAAAATTCAAACGA  
CTGTAGAGACCCTCCGGATTACTGGACAATACATGGACTATGGCCCGATAAAAGTGAAGGATGTAATAGATCGTG  
GCCCTTCAATTTAGAAGAGATTAAGGATCTTTTGCCAGAAATGAGGGCATACTGGCCTGACGTAATTAAGTCTGTT  
TCCCAATCGCAGCCGCTTCTGGAAGCATGAGTGGGAAAAGCATGGGACCTGCGCCGCCAGGTGGATGCGCTCAA  
CTCCCAGAAGAAGTACTTTGGCAGAAGCCTGGAAGTCTACAGGGAGCTGGACCTCAACAGTGTGCTTCTAAAATT  
GGGGATAAAACCATCCATCAATTACTACCAAGTTGCAGATTTTAAAGATGCCCTTGCCAGAGTATATGGAGTGAT  
ACCCAAAATCCAGTGCCTTCCACCAAGCCAGGATGAGGAAGTACAGACAATTGGTCAGATAGAACTGTGCCTCAC  
TAAGCAAGACCAGCAGCTGCAAACTGCACCGAGCCGGGGGAGCAGCCGTCCCCCAAGCAGGAAGTCTGGCTGGC  
AAATGGGGCCGCCGAGAGCCGGGGTCTGAGAGTCTGTGAAGATGGCCCAGTCTTCTATCCCCCACCTAAAAAGAC  
CAAGCATTGATGCCCAAGTTTTGGAAATATTCTGTTTTAAAAAGCAAGAGAAATTCACAACTGCAG

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**FIGURE 967**

MRPAALRGALLGCLCLALLCLGGADKRLRDNHEWKKLIMVQHWPETVCEKIQNDCRDPPDYWTIHGLWPKSEGC  
NRSWPFNLEEIKDLLPEMRAYWPDVIHSFPNRSRFWKHEWEKHGTCAAQVDALNSQKKYFGRSLELYRELDLNSV  
LLKLGIKPSINYQVADFKDALARVYGVIPKIQCLPPSQDEEVQTIGQIELCLKQDQQQLQNCTEPGEQPSPKQE  
VWLANGAAESRGLRVCEGPFYPPPKKTKH

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**FIGURE 968**

GAATTCCGAGCTTTTTATTCTAAGAGGAGAAAATCAGTAACGGGAGAAAGCAGGAGGATGTCCAGAAGAAATTC  
ATCCCTTGCTCTCGCCCTACTCTTTCTGGTGTTAGATCGAGCTACCCCTCTAAAAGCAGTTTAGAGTGGTAAAAA  
AAAAAAAAACACACCAAACGCTCGCAGCCACAAAAGGGATGAAATTTCTTCTGGACATCCTCCTGCTTCTCCCGT  
TACTGATCGTCTGCTCCCTAGAGTCCTTCGTGAAGCTTTTTATTCTAAGAGGAGAAAATCAGTCACCGGCGAAA  
TCGTGCTGATTACAGGAGCTGGGCATGGAATTGGGAGACTGACTGCCTATGAATTTGCTAAACTTAAAAGCAAGC  
TGGTTCTCTGGGATATAAATAAGCATGGACTGGAGGAAACAGCTGCCAAATGCAAGGGACTGGGTGCCAAGGTTT  
ATACCTTTGTGGTAGACTGCAGCAACCGAGAAGATATTTACAGCTCTGCAAAGAAGGTGAAGGCAGAAATTGGAG  
ATGTTAGTATTTTAGTAAATAATGCTGGTGTAGTCTATACATCAGATTTGTTTGCTACACAAGATCCTCAGATTG  
AAAAGACTTTTGAAGTTAATGTACTTGCACATTTCTGGACTACAAAGGCATTTCTTCTGCAATGACGAAGAATA  
ACCATGGCCATATTGTCAGTGTGGCTTCGGCAGCTGGACATGTCTCGGTCCCCCTTCTTACTGGCTTACTGTTCAA  
GCAAGTTTGCTGCTGTTGGATTTTCAAAAACCTTTGACAGATGAACTGGCTGCCTTACAAATAACTGGAGTCAAAA  
CAACATGTCTGTGTCCTAATTTTCGTAAACACTGGCTTCATCAAAAATCCAAGTACAAGTTTGGGACCCACTCTGG  
AACCCGAGGAAGTGGTAAACAGGCTGATGCATGGGATTCTGACTGAGCAGAAGATGATTTTTATTCCATCTTCTA  
TAGCTTTTTTAACAACATTGGAAAGGATCCTTCCTGAGCGTTTTCTGGCAGTTTTTAAAACGAAAAATCAGTGTTA  
AGTTTGATGCAGTTATTGGATATAAAATGAAAGCGCAATAAGCACCTAGTTTTCTGAAAACCTGATTTACCAGGTT  
TAGGTTGATGTCATCTAATAGTGCCAGAATTTTAATGTTTGAACCTCTGTTTTTTCTAATTATCCCCATTTCTTC  
AATATCATTTTTGAGGCTTTGGCAGTCTTCATTTACTACCACTGTTCTTTAGCCAAAAGCTGATTACATATGAT  
ATAAACAGAGAAATACCTTTAGAGGTGACTTTAAGGAAAATGAAGAAAAAGAACCAAAATGACTTTATTAAAATA  
ATTTCCAAGATTATTTGTGGCTCACCTGAAGGCTTTGCAAAAATTTGTACCATAACCGTTTATTTAACATATATTT  
TTATTTTTGATTGCACTTAAATTTTGTATAATTTGTGTTTCTTTTTCTGTTCTACATAAAATCAGAACTTCAAG  
CTCTCTAAATAAAATGAAGGACTATATCTAGTGGTATTTACAATGAATATCATGAACTCTCAATGGGTAGGTTT  
CATCCTACCCATTGCCACTCTGTTTCTGAGAGATACCTCACATTCCAATGCCAAACATTTCTGCACAGGGAAGC  
TAGAGGTGGATACACGTGTTGCAAGTATAAAAGCATCACTGGGGGATTTAAGGAGAATTGAGAGAATGTACCCAC  
AAATGGCAGCAATAATAATGGATCACACTTAACG

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**FIGURE 969**

MKFLLDILLLLPLLVCSLESFVKLFIPKRRKSVTGEIVLITGAGHGIGRLTAYEFAKLKSKLVLWDINKHGLEE  
TAAKCKGLGAKVHTFVDCSNREDIYSSAKKVKAIEIGDVSILVNNAGVVYTSDLFATQDPQIEKTFEVNVLAHFW  
TTKAFLPAMTKNNHGHIVTVASAAGHVSVPFLLAYCSSKFAAVGFHKTLTDELAALQITGVKTTCLCPNFVNTGF  
IKNPSTSLGPTLEPEEVNRLMHGILTEQKMIFIPSSIAFLTTLERILPERFLAVLKRKISVKFDAVIGYKMKAQ



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**FIGURE 970**

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**FIGURE 971**

MLESSGCKALKEGVLEKRS DGLLQLWKKKCCILTEEGLLLIPPKQLQHQQQQQQQQQQQQQPGQGPAEPSQPSG  
PAVASLEPPVKLKLHFSNMKTVD CVERKGKMYFTVVMAEGKEIDFRCPQDQGWNAEITLQMVQYKNRQAILAV  
KSTRQKQQHLVQQPPSQPQPQLQPQPQPQPQPQPQSQPQPQPQKQPQQLHPYPHPHPHPHSHPHSHPH  
PHPHPHPHQIPHPHPQPHSQPHGHRLLRSTNSA

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**FIGURE 972**

CCCGTATCCGCATCCACATCCACATCCACACTCTCATCTCACTCGCACCCACACCCTCACCCGCACCCGCATCC  
GCACCAAATACCGCACCCACACCCACAGCCGCACTCGCAGCCGCACGGGCACCGGCTTCTCCGCAGCACCTCCAA  
CTCTGCCTGAAAGGGGAGCTCCCGGGCAAGACAAGGTTTTGAGGACTTGAGGAAGTGGGACGAGCACATTTCTA  
TTGTCTTCACTTGATCAAAAGCAAAACAGTCTCTCCGCCCCGCACCAGATCAAGTAGTTTGGACATCACCTTAC  
TGAACAACCTTGGCGATTCTTCTTAGTTTTCTGCATACTTTTCATCACCGATGCAGGAAACGATTTTCGAGTCAAGA  
AGACTTTTTATTTATGAACCTTTGAAAGGATCGTCTTGTATGGTGAATTTTCTAGGAGCGATGATGTACTGTAATT  
TTATTTTAAATGTATTTTGATTTATGATTATTTATAGTTTTTTTTTAAATGCTTGTTCTAAGACATTTCTGAATGT  
AGACCATTTTCCAAAAGGAACTTTATTTTCAAAAACCTAATCCGTAGTAATTCCTAATCTTGGAGAATAAAAA  
AGGGCGGTGGAGGGGAAAACATTAAAGATTTATTCATTATTTCTCGAGTACTTTCAGAAAGTCTGACACTTTCAT  
TGTGTGCCAGCTGGTTGAAATTA AAACTCTGATATTACTTTTTTTGAGGATTTTTATTTTTGTTTTTGCTTAAA  
CACTATAGTTTGTCTAGAAGTTTAAAAAGCTAAAAAGTTAAAAATGGTGTAAATTATGAAAATCTAACACTCAAGAT  
AGTTTCTAAAAGGAAATCAGTAGTTAAGGATACCTGATTTCAAAAATATTTAAAGCATAACCTAACTGATGGTAGG  
ATGATTGTATCTTGAATATGTGGTAGGGCCACATCTATTGTAGGAAAACCTTGCTTTTATCATCTGTGTGTAAAG  
GGCTTAATAAGGAGAAGAGGCCTTTTGACTGATTTGTGAGTATAAATGCATTTGCTGTTTCATTTCAAAAATGTT  
GTGGAGGAAAAGAGTACATTTAACTTGTATAAGAGAATATTTGTACTCCTGTCCAGGCTGCAGGACCTTTCTTCG  
AGAGCTTTGCACACTTGACTTGAACCACATTTTCTGATCCCTTTACTTTGTTTTAGAAGCACACTGAAAAATCTC  
GTTGTTTTAAAGTACAATTTGTAAATATTTCAAAGGTCTAGGAGTCATAACTTTTGTTTTCTACTGAAAATGATG  
TTGATCAGAGAAACCACTGTTTTGCTTTTCATTGCTCTGTGAGAAATTGAGGATTCTGTTTTGCTGTTAGGTAA  
GCTAACTCAGAAATTGAAAGGAAAGACTGGATAAACACCGGATTTTCAGTAAGAAAACAACCCAGTCTTGTCTT  
AGAAGCCACTTGTGAGGAGTCTGTTGGGGGAAAAAGAGGATATGCTTTTAAAGGTAGAACAACCTTCTTCTG  
TGTTAAATCAAAGGATGTTCAAATCCACCAGGACAGATGCTACTTGGGTTTAAATGGAGCCATAGATGATACA  
AAGTCTCTTGGGGCTGAAAATCACTTCTATTTGCATGGCTTTACTAACTGGTTTTCTGTTTTCCATTATCTTTT  
TCACAGAAAGTCTTGGTCAGTATTTTTCCAGCATTTAAATGAAACGGTCAGTATTAGACCAGTCTAGGTTATG  
TAGTCAAGAAATAAAAAAGAAATTACATGCTACAGATGCTTTTATTCTCTTCCATCTAGAAAGGAGTTCCAAGG  
TCAAATTACTTTTTAGTGCAATAGTTAAATGACATTTTGAGATCATAACTCATATCCAAAAGTTGCAGGGAAAA  
TTAAATAGCTTTCCCTATTAAGCTAATGGCAAACAAAACCTAAGTGGACCCCACTTCCAGTGGTTGTTTAGG  
TTGCAGTTGTGAAAATATGCTGCCAACATTTAAAAACTTGTTTCATATGTATATATGTATACACATATATGAATA  
TGTATGTATATATACATATATGAGAACATGTGTGTACACATATATGAATATGTATATATGTGTATGTATATAT  
ATGTATATGAAATGAGAGCCACATCTAAAGATTTCTTAAATCAAGTTTGGTTTCAGCTTCTTAGAACTGTGGCTG  
TACTTTTTGAGGAGTACCTCATAGTACTATATTTTTAATGCATGCAAATCATAATAGCTCCAAATGAACCACAGT  
TTTTTCCCAATGGAGGATTTTTTTTTTAATTCCTGTACTAAAAAATCCATACCAAATATTTTTACAAATT  
AAGATTGATGTAGTTTTTAAAAAGGCATTTGTATGTTGTAGCTTACATATGGGGCTAGGTAATTTTATTGCTT  
AAAAAGATGCGCTAGGCTCCCTCTTGGTGGCTGGATTTCTTTTTCTTCGCCCGTGGTGGCCATGGTTTTTAATA  
GGGCCACCGAATCATGTTTTCTTTTTTTTTTTTTTTTGGAGATGGAGTCTCGCCCTGTGACCCAGGCTGGAG  
TGCAGTGGCACGATCTCGGCTCACTGCAACCTCTGCCTCTTGGGTTACGCCATTCTCCTGTGTGAGCCTCCTGA  
GTAGCTGGGACTACAGGTGAATGCCACCACGCCCGGCTGATTTTTGTATTTTTAGTAGAGATGGGGTTTACCAT  
AGTGGTCAGGCTGTTCTCGAACTCCTGACCTCAGGTGATCCACCTGCCTTGGCCTCCCAAAGTGCTAGGATTACA  
GGTGTGAGCCACCACACCCGGCCCCAGAGTAATGGTTTCTTGACTTTCTGTAGCCCTTGTTTCTTAGTCTGCTGT  
GATATTTATGTTGACCTTTATCATTTTCTATTCTGAACCCCTCTTAGCATTTAATGTGAAATCTAAGAAATTAGA  
AGTAGAATGGCTTTTATTGTTTTGACACCTTTGAAATTATTATTAATAATTTTTCCAGAGCAAAAAGCAAACAC  
GCTCAATAAGACTAAACAAAACAAAATATAAATGTACATCATTTAATGTCCCAGTGGCTCTATTCTACCTGTAAG  
AAAAATGATACAAAACCACCTAAGATATTTTGAAGCCTGACAAATCAGCTTCATGGAAAAAGGTAAAAAATGCATT  
TTTCAACCGAAAGGGCAGATCCAATAGAAGACCCGCTCCTTAAATAAACATAAAATGTAAAAAGTTGGAAAAAA  
AA

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**FIGURE 973**

GTTTGCGGGTGGTTGTTGCTCTCGGGGCCGTGTGGAGTAGGTCTGGACCTGGACTCACGGCTGCTTGGAGCGTCC  
GCC**ATG**AGGAGAAGTGAGGTGCTGGCGGAGGAGTCCATAGTATGTCTGCAGAAAGCCCTAAATCACCTTCGGGAA  
ATATGGGAGCTAATTGGGATTCCAGAGGACCAGCGTTACAAAGAAGTGGTAAAGAAGCATATCAAGGAA  
CTCCTGGATATGATGATTGCTGAAGAGGAAAGCCTGAAGGAAAGACTCATCAAAAGCATATCCGTCTGTCAGAAA  
GAGCTGAACACTCTGTGCAGCGAGTTACATGTTGAGCCATTTAGGAAGAAGGAGAGACGACCATCTTGCAACTA  
GAAAAAGATTTGCGCACCCAAGTGAATTGATGCGAAAACAGAAAAAGGAGAGAAAAACAGGAACTGAAGCTACTT  
CAAGAGCAAGATCAAGAACTGTGCGAAATTTCTTTGTATGCCCCACTATGATATTGACAGTGCCTCAGTGCCCAGC  
TTAGAAGAGCTGAACCAAGTTCAGGCAACATGTGACAACTTTGAGGGGAAACAAAGGCTTCTAGGCGTGAGGAGTTT  
GTCAGTATAAAGAGACAGATCATACTGTGTATGGAAGAATTAGACCACACCCCAGACACAAGCTTTGAAAGAGAT  
GTGGTGTGTGAAGACGAAGATGCCTTTTGTGTTGCTTTGGAGAATATTGCAACACTACAAAAGTTGCTACGGCAG  
CTGGAAATGCAGAAATCACAAAATGAAGCAGTGTGTGAGGGGCTGCGTACTCAAAATCCGAGAGCTCTGGGACAGG  
TTGCAAATACCTGAAGAAGAAAGAGAAGCTGTGGCCACCATTATGTCTGGGTCAAAGGCCAAGGTCCGGAAAGCG  
CTGCAATTAGAAGTGGATCGGTTGGAAGAAGTGAAGTGAAGAAACATGAAGAAAGTGATTGAGGCAATTTCAGTG  
GAGCTGGTTTCAGTACTGGGACCAGTGCTTTTATAGCCAGGAGCAGAGACAAGCTTTTGCCCCCTTTCTGTGCTGAG  
GACTACACAGAAAGTCTGCTCCAGCTCCACGATGCTGAGATTGTGCGGTTAAAAAACTACTATGAAGTTCACAAG  
GAACCTCTTTGAAGGTGTCCAGAAGTGGGAAGAAACCTGGAGGCTTTTCTTAGAGTTTGAGAGAAAAGCTTCAGAT  
CCAAATCGATTTACAAACCGAGGAGGAAATCTTCTAAAAGAAGAAAAACAACGAGCCAAGCTCCAGAAAATGCTG  
CCCAAGCTGGAAGAAGAGTTGAAGGCACGAATTGAATTGTGGGAACAGGAACATTCAAAGGCATTTATGGTGAAT  
GGGCAGAAATTCATGGAGTATGTGGCAGAACAATGGGAGATGCATCGATTGGAGAAAAGAGAGAGCCAAGCAGGAA  
AGACAACCTGAAGAACAACAAAAACAGACAGAGACAGAGATGCTGTATGGCAGCGCTCCTCGAACACCTAGCAAGCGG  
CGAGGACTGGCTCCCAATACACCGGGCAAAGCACGTAAGCTGAACACTACCACCATGTCCAATGCTACGGCCAAT  
AGTAGCATTTCGGCTATCTTTGGAGGGACAGTCTACCCTCCCCCGTGTCTCGACTTCCTCCTTCTGGCAGCAAG  
CCAGTGCCTGCTTCCACCTGTTTCAGGGAAGAAAACACCCCGTACTGGCAGGCATGGAGCCAACAAGGAGAACCTG  
GAGCTCAACGGCAGCATCCTGAGTGGTGGGTACCCTGGCTCGGCCCCCTCCAGCGCAACTTCAGCATTAATTCT  
GTTGCCAGCACCTATTCTGAGTTTGCGAAGGATCCGTCCCTCTCTGACAGTTCCACTGTTGGGCTTCAGCGAGAA  
CTTTCAAAGGCTTCCAAATCTGATGCTACTTCTGGAATCCTCAATTCAACCAACATCCAGTCTC**TG**AGAAGCCCTG  
ATCAGTCAACCAGCTGTGGCTTCCTGTGCCTAGACTGGACCTAATTATATGGGGGTGACTTTAGTTTTTCTTCAG  
CTTAGGAGTGCTTGAAACCTTGCCAGGTTCCATGACCATGGGCCTAACTTAAAGATGTGAATGAGTGTTACAGT  
TGAAAGCCCATCATAGGTTTAGTGGTCCTAGGAGACTTGGTTTTGACTTATATACATGAAAAGTTTTATGGCAAGA  
AGTGCAAATTTTAGCATATGGGGCTGACTTCTCTACCACATAATTCTACTTGCTGAAGCATGATCAAAGCTTGT  
TTTATTTACCACTGTAGGAAAATGATTGACTATGCCATCCCTGGGGGTAATTTGGCATGTATACCTGTAAC  
AGTAATTAACATCTTTTTTGTAGGCATGTTCAATTAATGCTGTAGCTATCATAGCTTTGCTCTTACCTGAAGC  
CTTGTCACCAACACAGGACAGCCTTCCTCCTGAAGAGAATGTCTTTGTGTGTCCGAAGTTGAGATGGCCTGCC  
CTACTGGCAAAGAGGTGACAGGAAGGCTGGGAGCAGCTTTGTTAAATTGTGTTTCAAGTTCTGTTACACAGTGCATT  
GCCCTTTGTTGGGGGTATGCATGTATGAACACACATGCTTGTGCGGAACGCTTCTCGGCGTTTGTCCCTTGGCTC  
TCATCTCCCCCATTCCTGTGCCTACTTTGCCTGAGTTCTTCTACCCCCGAGTTGCCAGCCAGATTGGGAGTCTG  
TTTGTTCCAATGGGTTGAGCTGTCTTTGTCTGTGGAGATCTGGAACCTTTGCACATGTCACTACTGGGGAGGTGTT  
CTGCTCTAGCTTCCACGATGAGGCGCCCTCTTTACCTATCCTCTCAATCACTACTCTTCTTGAAGCACTATTATT  
TATTCTTCCGCTGTCTGCCTGCAGCAGTACTACTGTCAACATAGTGTAATGGTTCTCAAAAGCTTACCAGTGTG  
GACTTGGTGTTAGCCACGCTGTTTACCTCATACAGTACGTGTCTGTTTTTAAAAATATACAATTATTCTTAAAAA  
TAAATTAATAATCGTATACTTACATTTCAAAAAAAAAAAAAAAAAA

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**FIGURE 974**

MRRSEVLAEESIVCLQKALNHLREIWELIGIPEDQRLQRTQEVVKKHIKELDDMMIAEEESLKERLIKSISVCQKE  
LNTLCSELHVEPFQEEGETTILQLEKDLRTQVELMRKQKKERKQELKLLQEQQELCEILCMPHYDIDSASVPSL  
EELNQFRQHVTTLRETKASRREEFVSIKRQIILCMEELDHTPDTSFERDVCEDEDAFCLSLENIATLQKLLRQL  
EMQKSQNEAVCEGLRTQIRELWDRQLPIEEEREAVATIMSGSKAKVRKALQLEVDRLEELKMQNMMKKVIEAIRVE  
LVQYWDQCFYSQEQRQAFAPFCAEDYTESLLQLHDAEIVRLKNYYEVHKELFEGVQKWEETWRLFLEFERKASDP  
NRFTNRGGNLLKEEKQRAKLQKMLPKLEEELKARIELWEQEHKAFMVNGQKFMEYVAEQWEMHRLEKERAKQER  
QLKNKKQTETEMLYGSAPRTPSKRRGLAPNTPGKARKLNTTMSNATANSSIRPIFGGTVYHSPVSRPSPSGSKP  
VAASTCSGKKTPRTGRHGANKENLELNGSILSGGYPGSAPLQRNFSINSVASTYSEFAKDPSLSDSSTVGLQREL  
SKASKSDATSGILNSTNIQS

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**FIGURE 975**

GCGGATCATCCGCTTCCGGAGTCGAGGTTTTCGGGCTTGTACCGCTTGGCGGTGCGGCCTGGTGTGCGGCTTGCAG  
GTTCTTTCTGTGTTTGTCTCTGCCCTGCCAAGGCCGTAGAGCTGGTGCCTGCGGGTAGCGGGGCTCTCCGAGGA  
GCGCGGCACGCCGCGCACC**ATG**GTCCACCTCACTACTCTCCTCTGCAAGGCCTACCGTGGGGGCCACTTAACCAT  
CCGCTTGCCCTGGGTGGCTGCACCAATCGGCCGTTCTACCGCATTGTGGCTGCTCACAACAAGTGTCACAGGGA  
TGGCCGTTTCGTAGAGCAGCTGGGCTCCTATGATCCATTGCCCAACAGTCATGGAGAAAACTCGTTGCCCTCAA  
CCTAGACAGGATCCGTCATTGGATTGGCTGCGGGGCCACCTCTCTAAGCCTATGGAAAAGCTTCTGGGTCTTGC  
TGGCTTTTTCCCTCTGCATCCTATGATGATCACAAATGCTGAGAGACTGCCAAGGAAACGGGCACGTGAAGTCCT  
GTTAGCTTCTCAGAAAACAGATGCAGAAGCTACAGATACAGAGGCTACAGAAACA**TAA**ATGAGCTGACTTTAGTG  
AGCATAGCAGTGGGAACAAGGTCAAGGTCCTTTTGAAACACTGCAGCGATCTTAATTTTGTTAGATTGGAGTTC  
AATAAATGGAGTATCCTGAAAAAAAAA

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**FIGURE 976**

MVHLTTLLCKAYRGGHLTI RLALGGCTNRPFYRIVA AHNKCPRDGRFVEQLGSYDPLPN SHGEKLVALNLDRI RH  
WIGCGAHL SKPMEKLLGLAGFFLHPMMITNAERLRRKRAREVLLASQKTDAEATDTEATET

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**FIGURE 977**

GGAGCTCTGGAGGCGGGGCTTCGAGCGTGGCTCGTGGGTTTTCCGTGAAGTCGCGGTGCAGCGGTGGGCGGC**ATG**  
 TCTGTGGCCGGTGGGGAGATTCTGTGGGGACACGGGGGGAGAGGACACTGCTGCTCCCGGCCGGTTCAGCTTCAGC  
 CCGGAGCCACGCTCGAGGACATCCGCCGCCTCCATGCTGAGTTTGCTGCGGAACGAGACTGGGAACAGTTCCAT  
 CAGCCTCGGAATCTCCTCCTGGCCTTGTTGGGGAAGTGGGGGAGCTGGCAGAACTCTTTCAGTGGAAAACCGAT  
 GGGGAACCTGGCCCCCAAGGCTGGTCCCCAGGGAACGGGCAGCCCTTCAAGAGGAGCTTAGTGACGTCCTCATC  
 TACCTGGTGGCATTAGCAGCCCGCTGCCGTGTGGATCTGCCGCTAGCAGTGCTCTCCAAAATGGACATCAACCGG  
 CGACGCTACCCAGCCCATCTGGCCCGCAGCTCTTCCCGCAAGTATACAGAATTGCCCCATGGGGCCATCTCTGAA  
 GACCAGGCTGTGGGGCCTGCGGACATTCCCTGTGACTCCACAGGCCAGACCTCAACC**TAG**AAAGATGGCCACAGG  
 ACTTGCAACTCAGGGTGGTGTCTGAAGAGCAGAGAGTGGCCTGGCCCTGGAGCCTTTTTCTAGTCTTTTCAGAAT  
 AGATCATGGGCCTGAGGCCTCCACTTCTTGAGGTCTGAGGCCAGCAGCCTCTAGAAGGTAGCCTCCTGGTGTTT  
 GTTCTCCAGTAAAAATGGTTTTGGGCGATAACTTCTAGATTATTCCTGGATGGCCAGGGAGGCTCTCTGTCTCAG  
 CAGGTGATGACGGGGGTACCAGGGGTGCCTCTGAGACCCATTCTCGTGTTTCCCTGTTGTACCTTTTGCCTGCAG  
 GGCAGAGAGATCTGGTTTCTAGCAAATTCCCAGTAGGATGTCATGTAAGTTCCTTCCCCCTCTTAGAGATTGAAG  
 GCTGTAAGAGTCCAGATGGTGGAGCCAGGCTGTCTGGGTTCAAATGCCATCTTTGACACTTGCAAGCTAAATGAC  
 ATTACTCAAATTAATCGTTCTGCACTTCAGCTTCCTTGTCTATCAAATAAAAAAGAATAGTACCTGCCCAAAAAA  
 AAAAAAAAAAAAAAAAAA



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**FIGURE 978**

MSVAGGEIRGDTGGEDTAAPGRFSFSPEPTLEDIRRLHAEFAAERDWEQFHQPRNLLLALVGEVGELAEWFQWKT  
DGEPPGQGWSPRERAAALQEELSDVLIYLVALAARCRVDLPLAVLSKMDINRRRYPAHLARSSSRKYTELPHGAIS  
EDQAVGPADIPCDSTGQTST

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**FIGURE 979**

GAAGGTCAGCGTGTGAAGTAGGCGCTGGCAACGCGGGTTACCCTGXTXTATTGAGGAGTAACGGCCCAGCGGAC  
CACCCAGGCTTGAGGCAGCGGCGGGAACCACTCGGTTTGCTGCGATACCATGGGAAGGAGGCGGGGAAGCGGCAA  
CAAAACCACAGGGGATTGGCCGGCTTTTTTCGGAGCCGGCGGAGCAGGTTACTCGCACGCGGATTTGGCTGGCGT  
CCCGCTAACTGGTATGAACCTCTGTCTCCTTATTTAAATGTGGATCCACGATACCTCGTGCAGGATACAGATGA  
GTTTATTTTACCTACCGGAGCTAATAAAACCCGGGGCAGATTTGAGCTGGCCTTCTTTACGATTGGAGGATGTTG  
CATGACAGGGGCTGCGTTTGGTGCAATGAATGGTCTTCGGCTAGGATTGAAGGAAACCCAGAACATGGCCTGGTC  
CAAACCAAGAAATGTACAGATTTTGAATATGGTGACTAGGCAAGGGGCACTTTGGGCTAATACTCTAGGTTCTCT  
GGCTTTGCTCTATAGTGCAATTTGGTGTCATCATTGAGAAAACACGAGGTGCAGAAGATGACCTTAACACAGTAGC  
AGCTGGAACCATGACAGGCATGTTGTATAAATGTACAGGTGGTCTTCGAGGGATAGCACGAGGTGGTCTGACAGG  
ACTAACACTTACCAGCCTCTATGCACTATATAATAACTGGGAGCACATGAAAGGCTCCTTGCTCCAACAGTCACT  
CTGAAAGATTTTGCCAACATCATGAATGGAGGACACTTCAGTAGTTCATCTAGGATCCTTTTATTAAGGACAGTTTG  
GGAGTTATTTCTCTCT

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**FIGURE 980**

MEGGGSGNKTGGLAGFFGAGGAGYSHADLAGVPLTG MNPLSPYLNVDPRYLVQDTDEFILPTGANKTRGRFEL  
AFFTIGGCCMTGAAFGAMNGLRLGLKETQNMAWSKPRNVQILNMVTRQGALWANTLGSLALLYSAFGVIEKTRG  
AEDDLNTVAAGTMTGMLYKCTGGLRGIARGGLTGLTLTSLYALYNNWEHMKGSLLQQSL

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**FIGURE 981**

GGCGAAGGAGATCAGCAGGACGCTGCGCACAACATGGGCAACCACCTGCCGCTCCTGCCTGCAGAGAGTGAGGAA  
GAAGATGAAATGGAAGTTGAAGACCAGGATAGTAAAGAAGCCAAAAAACCAAACATCATAAATTTTGACACCAGT  
CTGCCGACATCACATACATACCTAGGTGCTGATATGGAAGAATTCATGGCAGGACTTTGCACGATGACGACAGC  
TGTCAGGTGATTCCAGTTCTTCCACAAGTGATGATGATCCTGATTCCCGGACAGACATTACCTCTTCAGCTTTTT  
CACCTCAAGAAGTCAGTATGGTGCGGAATTTAATTCAGAAAGATAGAACCTTTGCTGTTCTTGCATACAGCAAT  
GTACAGGAAAGGGAAGCACAGTTTGAACAACAGCAGAGATATATGCCTATCGAGAAGAACAGGATTTTGGAATT  
GAGATAGTGAAAGTGAAAGCAATTGGAAGACAAAGGTTCAAAGTCCTTGAGCTAAGAACACAGTCAGATGGAATC  
CAGCAAGCTAAAGTGCAAATTCCTCCGAATGTGTGTTGCCTTCAACCATGTCTGCAGTTCAATTAGAATCCCTC  
AATAAGTGCCAGATATTTCTTCAAACCTGTCTCAAGAGAAGACCAATGTTCAATAAATGGTGGCAGAAATAC  
CAGAAGAGAAAAGTTTCATTGTGCAAATCTAAGTTCATGGCCTCGCTGGCTGTATTCTTATATGATGCTGAGACC  
TTAATGGACAGAATCAAGAAACAGCTACGTGAATGGGATGAAAATCTAAAAGATGATTCTCTTCTTCAAATCCA  
ATAGATTTTTCTTACAGAGTAGCTGCTTGTCTTCTTATTGATGATGTATTGAGAATTCAGCTCCTTAAATTTGGC  
AGTGCTATCCAGCGACTTCGCTGTGAATTAGACATTATGAATAAATGTACTTCCCTTTGCTGTAAACAATGTCAA  
GAAACAGAAATAACAACCAAAATGAATATTCAGTTTATCCTTATGTGGGCCGATGGAGCTTATGTGAATCCTC  
ATGGATATGTGCATGAGACACTTACTGTGTATAAGGCTTGCAACTTGAATCTGATAGGCCGGCCTTCTACAGAAC  
ACAGCTGGTTTCTTGGGTATGCCTGGACTGTTGCCAGTGTAAGATCTGTGCAAGCCCATATTGGATGGGAAGTT  
TACGGCCACCAAAAAAGACATGTCACCTCAAAAATTTGGGGCTTAACGCGATCTGCTCTGTTGCCACGATCCC  
AGACACTGAAGATGAAATAAGTCCAGACAAAGTAATACTTTGCTTGTAACAGATGTGATAGAGATAAAGTTATC  
TAACAAATTGGTTATATTCTAAGATCTGCTTTGGAATATTGCCTCTGATACATACCTAAGTAAACATAACATT  
AATACCTAAGTAAACATAACATTACTTGGAGGGTTGCAGTTTCTAAGTGAACTGTATTTGAACTTTTAAGTAT  
ACTTTAGGAAACAAGCATGAACGGCAGTCTAGAATACCAGAAACATCTACTTGGGTAGCTTGGTGCCATTATCCT  
GTGGAATCTGATATGCTGGTAGCATGTCATTGATGGGACATGAAGACATCTTTGGAAATGATGAGATTATTTCC  
TGTGTTAAAAAAAAAAAAA

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**FIGURE 982**

MGNHLP LLP AESEEEDEMEVEDQDSKEAKKPNIINFDTSLPTSHTYLGADMEEFHGRTLHDDDDSCQVIPVLPQVM  
MILIPGQTLPLQLFHPQEVSMVRNLIQKDRTFAVLAYS NVQEREAQFGTTAEIYAYREEQDFGIEIVKVK AIGRQ  
RFKVL ELRTQSDGIQQAKVQILPECVLPSTMSAVQLES LNKCQIFPSKPVSREDQCSYKWWQKYQKRKFHCANLT  
SWPRWLYSLYDAETLMDRIKKQLREWDENLKD DSLPSNPIDFSYRVAACLPIDDLRIQLLKIGSAIQRLRCELD  
IMNKCTSLCCKQCQETEITTKNEIFSLSLCGPMELM

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**FIGURE 983**

CCCGCGTGCATACGGTTGCCGGC**ATGG**CACATTACAACCTTCAAGAAAATTACGGTGGTGCCGTCCGCCAAGGACT  
 TCATAGACCTCACGTTGTGCGAAGACTCAACGAAAGACTCCAACCGTTATTCATAAACATTACCAAATACATCGCA  
 TTAGACATTTTACATGAGAAAAGTCAAATTTACTCAACAGAATTACCATGATAGACTTTACAAATTCTAACAG  
 ATTTCCCCAAATTGGATGATATTCATCCGTTCTATGCTGATTTGATGAATATTCTCTACGACAAGGATCATTACA  
 AGTTGGCTCTGGGGCAAATAAATATTGCCAAAAATTTAGTGGACAATGTTGCTAAAGATTATGTGCGACTGATGA  
 AGTATGGCGACTCTCTCTACCGCTGCAAACAGCTGAAGCGTGCGGCCCTGGGACGGATGTGCACAGTGATCAAGA  
 GGCAGAAGCAGAGTTTGGAGTATTTGGAGCAAGTGCGTCAGCATTTATCCCGTTTGCCAACCATTTGATCCGAATA  
 CCAGGACCCCTGCTTTTGTGTGGGTACCCAAATGTTGGGAAGTCCAGCTTCATCAACAAGGTGACGAGAGCAGACG  
 TGGATGTCCAGCCCTATGCGTTTACAACCAAGTCTCTGTTTGTGGGCACATGGATTATAAGTATCTACGTTGGC  
 AGGTTGTAGACACTCCTGGGATCCTGGACCACCCTCTGGAGGATAGGAACACCATCGAGATGCAGGCCATCACTG  
 CCCTGGCCACCTCCGTGCTGCGGTCTGTATGTGATGGATTTGTCTGAGCAGTGTGGGCATGGGCTGAGGGAGC  
 AGCTAGAACTCTTCCAGAACATCAGACCTCTCTTCATCAACAAGCCTCTCATAGTTGTAGCCAACAAATGTGATG  
 TGAAGAGAATAGCTGAACCTTTCTGAAGATGATCAGAAAAATTTACAGATTGTCAGTCTGAAGGATTCCCTGTAA  
 TAGAGACCAGCACCTGACTGAGGAAGGTGTTATTAAAGTTAAACAGAGGCTTGCGATAGGCTTTTGGCTCATC  
 GAGTGGAAACCAAAATGAAGGGAAATAAAGTGAATGAGGTGCTGAATAGACTGCACCTGGCTATCCCAACCAGGA  
 GGGACGATAAGGAGAGGCCCCCTTTTCATCCCTGAAGGAGTGGTGGCTCGCAGGAAGAGGATGGAAACTGAGGAGT  
 CCAGGAAGAAGAGGGAACGAGATCTTGAGCTGGAAATGGGAGATGATTATATTTGGATCTTCAGAAGTACTGGG  
 ATTTAATGAATTTGTCTGAAAAACATGATAAGATACCAGAAATCTGGGAAGGCCATAATATAGCTGATTATATTG  
 ATCCAGCCATCATGAAGAAATTGGAAGAATTAGAAAAAGAAGAAGAGCTGAGAACAGCTGCTGGAGAGTATGACA  
 GTGTATCTGAGAGTGAAGACGAAGAGATGCTGGAAATCCGACAGCTGGCAAAGCAAATTCGAGAGAAAAAGAAGT  
 TGAAAAATCTGGAGTCCAAAGAAAAGAATACACAGGGACCCAGGATGCCGCGAACTGCTAAGAAGGTTTCAGAGGA  
 CAGTTTTGGAGAAGGAGATGCGTAGTCTTGGTGTGACATGGACGATAAAGACGATGCCCATACGCAGTCCAGG  
 CAAGAAGATCCCGGAGCATCACTAGGAAAAGAAAGCGGGAAGACTCTGCTCCCCCGTCTCTGTGGCCCGGAGTG  
 GGAGTTGCTCTCGAACTCCACGTGACGTTTCTGGTCTTAGGGATGTCAAGATGGTGAAGAAAGCCAAGACTATGA  
 AGAATGCTCAGAAGAAGATGAATCGGTTGGGGAAGAAAGGGGAGGCGGATAGACACGTGTTTGATATGAAGCCCA  
 AGCACTTGCTGTCTGGGAAGAGGAAAGCTGGTAAAAAGGACAGGAGAT**TAG**TATCCGTTTGGTTGGCGTGGCTTCG  
 CTAGAGTGTTGCTGTTTTATTTCTGGTTTGGTACAGTATGGTTTCATGAAATTGGAGCTCTGTACAAACTGAAAA  
 AGACAAAATAAGTAAAGCACTTGTTGCTTTGCTGAAAACTATGGTTAACCTATATAGGTGTGGGAAATTTTGT  
 CACTGCATAATATTACAAATATTTTGAGTAGACAGTGTTTCCACATTTAATGGAGTATCAGTTGCTTCAGATTTT  
 CAGAACTGGGAAGATTTACTGGTGTAACTGGGTTGTTTTGATGGAGAAAAACCTTATTTTCTTTTGTAAGAGCT  
 GGGAGCAACACGTTTATGAGTGTGTGGAATCCCGTGCTTAAATACGCTCTTAAATTATTTTCTAGTCTTATT  
 TTACAATGTCTCATTGTAGTCTGTCTTCAACTATTTTATCCAAAATAAACCTCCAGAAGAACTAAAAAAAAAAAA  
 AAAAAAAAAAAAAA

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**FIGURE 984**

MAHYNFKKI TVVPSAKDFIDLTLSKTQRKTPTVIHKHYQIHRIRHFYMRKVFTQQNYHDRLSQILTD FPKLDDI  
HPFYADLMN ILYDKDHYKLALGQINIAKNLVDNVA KDYVRLMKYGDSLYRCKQLKRAALGRMCTVIKRQKQSLEY  
LEQVRQHLSRLPTIDPNTRTLLCGYPNVGKSSFINKVTRADV DVQPYAFTTKSLFVGHMDYKYLRWQVVDTPGI  
LDHPLEDRNTIEMQAITALAH LRAAVLYVMDLSEQCGHGLREQLELFQNI RPLFINKPLIVVANKCDVKRIAELS  
EDDQKIFTDLQSEGFPVIETSTLTEEGVIKVTEACDRLLAHRVETKMMGKNKVNEVLNRLHLAIPTRRDDKERPP  
FIPEGVVARRRKMETEESRKKRERDLELEMGDDYILD LQKYWDLMNLSEKHDKIPEIWEGHNIADYIDPAIMKKL  
EELEKEEELRTAAGEYDSVSESEDEEMLEIRQLAKQIREKKKLKILESKEKNTQGPRMPRTAKKVQRTVLEKEMR  
SLGVDMDDKDDAHYAVQARRSR SITRKRKREDSAPPSSVARSGSCSRTPRDVSGLRDVKMVKKAKTMKNAQKKMN  
RLGKKGEADRHVFDMPKPKHLLSGKRKAGKKDDR

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**FIGURE 985**

GGCTGCGAGAAGACGACAGAAGGGGGAAGGGGCTGATGCGAACTGGGGCCACGGTAGCCATCGCGCTTTGCAGTT  
CGGTCTCCTGGTGTACGGCCAACGCCAAGTAGGGGATTGCGTTCCCTCCAGTCGCAGACCCCTATCAGATTTGGAT  
**ATG**TCCTTCATATTTGATTGGATTACAGTGGTTTCAGCAGTGTGCTACAGTTTTTAGGATTATATAAGAAAAC  
GGTAAACTGGTATTTCTTGGATTGGATAATGCAGGAAAAACAACATTGCTACACATGCTAAAAGATGACAGACTT  
GGACAACATGTCCCAACATTACATCCCACTTCCGAAGAAGTACCATTGCTGGCATGACGTTTACAACTTTGAT  
CTGGGTGGACATGTTCAAGCTCGAAGAGTGTGGAAAACTACCTTCCTGCTATCAATGGCATTGTATTTCTGGTG  
GATTGTGCAGACCACGAAAGGCTGTTAGAGTCAAAAGAAGAACTTGATTCACTAATGACAGATGAAACCATTGCT  
AATGTGCCTATACTGATTCTTGGGAATAAGATCGACAGACCTGAAGCCATCAGTGAAGAGAGGTTGCGAGAGATG  
TTTGGTTTTATATGGTCAGACAACAGGAAAGGGGAGTATATCTCTGAAAGAACTGAATGCCCCGACCCTTAGAAGTT  
TTCATGTGTAGTGTGCTCAAAAAGACAAGGTTACGGAGAAGGCTTCCGCTGGATGGCACAGTACATTGAT**TAACAC**  
AAACTCACATTGGTTCCAGGTCTCAACGTTACAGGCTTACTCAGAGATTTGATTGCTCAACATGCATAACTTGAAT  
TCAATAGACTTTTGGCTGGTTATAAAACAGATGTTTTTTAGATTATTAATATTAAATCAACTTAATTTGAATGAGA  
ATTGAAACTGATTCAAGTAAGTTTGAGTATCACAATGTTAGCTTTCTAATTCATATAAGTACTTGGTTTTTAC  
AGTTTATAATCTGACATCACCCAGCGCCATTTGTAAAGAGCAACTTTCCAGCAGTACATTTGAAGCACTTTTTA  
ACAACATGAAACTATAAACCATATTTAAAAGCTCATCATGTAAATTTTTTATGTACTTTTCTGGAAGTAGTTTT  
TAAATTTTAGATTATATGTCCACCTATCTTAAGTGTACAGTTAATAATTAGCTTATTCAATGATTGCATGATGCC  
TTACAGTTTTCAATAACTTTTTTTCTTATGCAAACGTCATGCAATAAAACAACTCTAATGTTTGGCAAAAAAA  
AAAAA



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**FIGURE 986**

MSFIFDWIYSGFSSVLQFLGLYKKTGKLVFLGLDNAGKTTLLHMLKDDRLGQHVPTLHPTSEELTIAGMTFTTFD  
LGGHVQARRVWKNYLPAINGIVFLVDCADHERLLESKEELDSLMTDETIANVPILILGNKIDRPEAISEERLREM  
FGLYGQTTGKGSISLKELNARPLEVFMCSVLKRQGYGEGFRWMAQYID

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**FIGURE 987A**

CCGGCCCGGCCCGGCCCGGCCAGCCGCTCCTGCTGGGCGCCCCAACCGGGTCCGGCCCCGGGGGGCGGGGGCCGC  
 GGCCCGCAGGATGAGGAAATCCAACAGCAAGTTGAAGCCCCGAAGTTGTGGAGGAGCTGACCAGGAAGACCTACT  
 TTACCGAGAAGGAGGTCCAGCAGTGGTACAAAGGCTTCATCAAGGACTGCCCCAGTGGGCAGCTGGATGCGGCAG  
 GCTTCCAGAAGATCTACAAGCAATTCTTCCCGTTTCGAGACCCACCAAGTTTGCCACATTTGTTTTCAACGTCT  
 TTGATGAAAACAAGGACGGGCGAATTGAGTTCTCCGAGTTTCATCCAGGCGCTGTCGGTGACCTCACGGGGAACCC  
 TGGATGAGAAGCTACGGTGGGCCTTCAAGCTCTACGACTTGGACAATGATGGCTACATCACCAGGAATGAGATGC  
 TGGACATTGTGGATGCCATTTACCAGATGGTGGGGAATACCGTGGAGCTCCAGAGGAGGAGAACAACCTCCTGAGA  
 AGAGGGTGGACCGGATCTTTGCCATGATGGATAAGAATGCCGACGGGAAGCTGACCCTGCAGGAGTTCCAGGAGG  
 GGTCCAAGGCAGACCCGTCCTTGTGCAGGCGCTGTCCCTCTACGACGGGCTGGTATAGTCCCAGGCTGGAGCTG  
 GATGCCTGGGAACCACTCACCTCCTTCTGTGCCATGAGGCCACCTCAGCCCTGACACCAACCCCGTGCCTCCACC  
 CAGCCTTCTTCCGCATCCACACACAGCCGGCTGCCCTTGACCCGGGAGGCCCCGGCTCTCCTCTCCCTGTCTCTG  
 CACCCATCCCCCGCCTGAAGCCACCGGCTCCAATTGCCAGCAACCTCTGCTTGTCCGAAAACGACAACACGAAA  
 TGGAAAAGGCTACAGCCCTCTGCATAAACCAAGGACTTGGCTGCCTCGCAGGCAGCCTCCGTTTCTCCCGCTCTC  
 TTGCGCGTGTGCTTTTGTTTTTTATTTTGAACAGACGTTTTTAAAGAAAAAAAACAACCTACCTTCTGTCTCTAGA  
 AGACACAGACTGACAGATGGGGTGAAGGCCTGGGGACCTCAGAGAACTCTGCCTTGCCCTCGTCCCTCGTCTCTTC  
 GGCAGCCGGAGAGGCTGTGGGTGGGCCGAGGGTGTCTAGGGGTTCTGCCTAGTCAACGTTATTTGTCTCTCCATC  
 TTTTGGCAGCAAAACCACCTGCGTGGCTAGGATGATTAATTATGAGGATGATGATTTTTTTTTTGTGATAACAGTAT  
 TGTGCTTTTTTGTGGGGAAGTGAGGTTTTTTTTTTATATACATATATAATTGATATCTTTAATTTATTGGTTGTT  
 AACTGTTGCTGCTGCCTGGTGTGCTCAGCTCCCAGGGCTGCGGGCCACCGTTTACATGTGCACGCCCTGACC  
 CACCTGCCCACGCCGACTTGGGAGGATGGTGGCCTGCAGCGGCCAAGAAGCCAAAAAAATTTTTTTTTTTTCAG  
 ATACTGTGCTTGATTTTTTGGAGAGGGGAGAGGTGGAAATTCCTAAATGGCTAATGCACTGTTCCCTCCAGCCGA  
 ATGCCTCTGCCAAACCCCTTTTCCCTGCTGCCTCTGTCCCCGCATCCTTGTCTCCCTGGGTCCGTAACATTT  
 TTTCCGAGGATGAACAGGGGACATCTTTAGGTTTCTCAACTCTTGCTTTGGTGTGTTGCCGAGCATGGAACACAG  
 GGCGCCTAAGGCTGGGAGCTGGAAGAAGGGGCATTGGGTACCCAGGCAGAGTCAGGAGAGGTGGTCTTTGAAGTA  
 AGTTAGCAGAAATCAAGGGGACCCCGCCTCCTTGGGCTGGGGAGGGGATTTCAAGATAGTTCATAACTCTCTCC  
 CGCTCTGCCTTCCCTCCTTCTATCTGCTTTTTTCCAGTAAACTGCATGGTGTCTTCCCTGGCCTTCTCTTGGCT  
 CAAAGGCTGGGAGGGAGGGAAGGAGAGAAGAGTTCCAGGCAATCCCATCAATATAGTCCCTACACCTGGGGCTGC  
 GGCCACATGTCTTCACGGAGGCTTCCAGCGGTGCCTGCCACTGAGGCAGGTGCGGCCCCAGGACCATCACCAGG  
 AATGCGAGGCCACCTTGACCAGAGGTAGGAGCCCAAGGTCCGGCCCTTGCTCTTTGATTGTGGGCAGCCTCCTG  
 CCTCTCTGGGTCTCAGTTGCCCATCTGCAGAGCGAGGAGGCCCGGGCTGGTTGGTCTTGAAGGCCCTTTTCCA  
 TGCCGACATCATGTCACTCTAGGCCTGGGGTTTCACTTCTGTGGCTGGTGTGTTAAGTTTGCTTGAC  
 CCCAGCAGCCCGAGGGACTGTCTGAGTCACAGCACAGCCCTATTGCGTGGCTGCTGGTGTGTGGGGTCAGTTCC  
 AGCAGATGAATGTGTATGTGGCACACCTTGTCCCTTCCCGCAGCATTCTCTGGTTCCCCCAGACCTTGAGCG  
 CTCTTTGGGACCCAGAAGGAGTCTTGCACAGGGAAGGCTTGAGGTGAGAAGCCGCTTCCAGACTGTGAGGGCC  
 AGGCCTGGGTCTAGAATTCTTGTGCTGCTTTGCAGAGTCAACAGCCCATCAGCCCATGTTTTAGAGGGGACACT  
 TTGGTCTCGGTTCCACCCCTCAGCAAGCAGGCCTCCAGCCCGAGGAAGGCCTTGCCTGAGTGACGTTGCCGTG  
 TGGGGCTGCGTGGCTGTTCCCTTGGCTGGAGCATTAGCCAAACCCAGCGTCCCCCTGAGGCGTTTATTGGCA  
 GCCCCCTAGGACTGCACGCTGGCCCCACGGTAACCCCCCTCCCCACCAACATCCTGCAGGGATGGGGTCAGTG  
 GTTCCACCTTACAGGCCACTTTGAAGGGTGGATTCTTTGAGGCCCCCTGCCAGTCGGCTCCCTGCTCAGCTGCTG  
 GCCCCGGGCGACCTGGGACTCAGCACCAACGGCTGAAGTTTCTCAGCTGGGCTCTGACCTGGGGTCTGGGGCAGGG  
 AACGAACATGGTGGCTTTGGGGCTGAGAGGATGAGGGAGGTCTTTCCAGGTCAAATTACTTTCTTTGGCCTCTG  
 CCTGAGGCTCGATTGCTCTCTGGTCCAATGGGACTGACACTGTTGTACAACCTGACCTGTGGCTGAGGGTGTG  
 TGGGCTTAAGCATGTGGACCCCTTCGGTGTGTCTGGCCTTCCCTCCATCGTCCCTGGCCCTTTGGCCTTTTGGTTTGA  
 AGCCACAGGTGTGGCTTCTGGCCTTAGCAGATGGTATGCTTGGCGACCGCAGCCAGCATGCCGGTGGGCCACACA  
 GCCCAGCCAGCCAGAGCTGCCGGAAGGGCCGCCCTTCCCGGCCCTGGCGGGGTGCTGGACACTGGCCATTTTC  
 ACTAGAGTTTGCCTGGCAGGACCGATCTCTGCCCCCTCCTCTCCCCAGGCCTCTGGCTGCAGTGATGCCGAGCA  
 ATCCTGAGCCAGGTGCCTCCTGAGCAGCCGTGCGCTCTCCACAGCGGCGTTTGCCACCCAATGCGGCTCGCTT  
 CAGATGCTCTGATGCAGAGGGCACGCCCATAGTCCCTCTGCAGAGCCTCGCACTGGGGCCAGGGCAGGCACCAGC

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**FIGURE 987B**

CCCAGGCGGCCAGTCGGCCACGGCCTGTCCTCTTCCTCGTAGCGTCTGCTCCTCACTTTGTGTTGATGGTGA  
AGGAGAATGTTCCGATTTTCCATGATCTAAGCAGGCCACGTTTAAAATAACATCAAGGCAAGCGTACGTGTCACC  
CTCTGTACTGACATCTCCTCCCCTGAAATGCTTTTCAGTTTGACAGCCCGTTTCCTAGACAAGTGCACCTGGGGT  
TTCAGGAACTTTGTGTTTTTTCGGAGGGGGTTGGTGGGGAGGTCGGGATGCCTGGGATCCCTTCCTGGAGAGGCA  
GGCTGTCTCTGGAAAAAGCCTCCATTGCCCACCCGCCAGGCGGAAAGTCACCCTGTTCCCAGCGCGGTTTCAGCA  
TTTAATTTTAAGGGAGCTAAGGAAGCGCGCGCGCCCCCTGGTGGTGGTAAGCCGCCAACGCACCTGGGGGCTGC  
AACCCACCCGACGGGTGGTCCGGAGGGAGGCTGGAGCGGGGAGGCGAGGAGGGGGCTGTGAGTCCTCAGAGGCC  
CTGGGCCACCACATTTCTGGCAGCGTTTCCCAGACACCCCTCTGCTAGGCCATCCCTGGATAGCAAGTGAATTAA  
CTTAAGGGCACTGTGATGGGAAGCCTTGCCCCCTCTTTTTTTTTTTTTTTTAAATATCTGCGGAATAAACCCAA  
TGGTTAATTTTTGAATGAATAAAAGGCTTTTGTGAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 988**

MGKSNSKLPKVVEELTRKTYFTEKEVQQWYKGFIKDCPSGQLDAAGFQKIYKQFFPFGDPTKFATFVFNVDEN  
KDGRIEFSEFIQALSVTSRGTLDKLRWAFKLYDLNDGYITRNEMLDIVDAIYQMGNTVELPEEENTPEKRVD  
RIFAMMDKNADGKLTLEFQEGSKADPSIVQALSLYDGLV

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**FIGURE 989**

AGAGCTCGCGGTGGACTCCGACCCGGCGCAAC**ATG**GCCGCAGCCTCGCCTCTGCGCGACTGCCAGGCCTGGAAGG  
ATGCGAGGCTCCCGCTCTCCACCACAAGCAACGAAGCCTGCAAGCTGTTGATGCCACGCTGACCCAGTATGTAA  
AATGGACCAATGACAAGAGTCTCGGTGGCATCGAGGGCTGCCTGTCAAAGCTCAAAGCAGCAGATCCAACCTTTG  
TGATGGGCCACGCCATGGCTACTGGCCTTGTGCTGATTGGCACTGGAAGCTCCGTGAAGCTGGACAAAGAGCTGG  
ACCTGGCTGTGAAGACAATGGTGGAGATTTCAAGAACCCAGCCGCTGACAAGGCGGGAGCAGCTGCACGTGTCTG  
CAGTAGAGACATTTGCCAATGGGAACCTTTCCGAAGCCTGTGAACTATGGGAACAGATTCTCCAGGACCACCCGA  
CAGACATGTTGGCCCTGAAATTTTCCCATGATGCTTATTTTTACCTGGGCTATCAGGAACAGATGAGAGATTCTG  
TTGCTCGAATTTACCCCTTCTGGACACCTGACATCCCCCTAAGCAGCTATGTGAAAGGCATCTACTCTTTTGGCT  
TGATGGAACCAACTTCTACGACCAGGCAGAAAACTCGCCAAAGAGGCTTTATCTATTAACCCGACAGACGCAT  
GGTGGGTGCACACCGTCGCTCACATCCACGAGATGAAAGCAGAGATCAAGGATGGGTGGAATTCATGCAGCACT  
CAGAGACCCCTCTGGAAGGACTCTGATATGTTGGCTTGTCTATAACTATTGGCACTGGGCTTTATATCTGATTGAGA  
AGGGCGAATATGAGGCCGCGCTGACCATCTACGATACCCACATCCTTCCAGCCTGCAGGCCAACGATGCAATGC  
TGGACGTGGTGGACAGCTGCTCCATGCTCTACCGCCTGCAGATGGAAGGAGTGTCTGTGGGCCACGGTGGCAGGA  
TGTCTGCTGTGGCCCGGAAGCACAGCCGAGACCACATCCTGCTGTTCAATGACGCACACTTCC**TGAT**GGCATC  
CCTGGGTGCACACGACCCCCAGACCACACAGGAGCTGCTGACCACCCCTGCGGGACGCCAGCGAATCCCCAGGGGA  
GAACTGCCAGCACCTCCTGGCCCGAGACGTGGGGCTGCCCCCTGTGCCAGGCCCTGGTGGAGGCTGAGGACGGGAA  
CCCTGACCGCGTCTTGAGCTGCTCCTGCCCATCCGCTACCGGATCGTCCAGCTCGGTGGGAGCAATGCCAGAG  
AGACGTCTTCAACCAGCTGCTGATTACGCGGCCTTAAACTGCACCTCCAGCGTCCATAAGAACGTAGCCCGGAG  
CCTTCTGATGGAGCGTGATGCCTTGAAGCCCAACTCGCCCCTGACCGAGCGGCTCATCCGCAAGGCAGCTACCGT  
CCACCTCATGCAGTGAGCCAGCCTGGCCGCTCCACCCTGCAGAACCTCAGTGGTGGCGTCACTGCGTCCAGTCAG  
CTGCTCCACCGGGTTAGGGTCAGGAGACGGCCAGAGCCTGTTTGTAGGGCTGTTAGAGGGTGATCTTCAGTTTT  
ACAGGAAGTGGGTACGGGTAAATTTTAAATGTGATTCCGAATCTCCTTTCAGTCCTCGAGAAGGGCCAATGAGC  
ATTTTTCAGCAGTCACAGCCAGTGTGAGTGCTGCTCTTTCCACCTGCCTTGCAAATTCTGTTTCCAGGGGAATG  
TGTCTACTGCCTGGTGGTTCAAAGGTTGGAAGGCAGTGCAGAGGTGGGGGCTGATTCTGCTGGGACAGGTCTTCC  
AGAGGCAGCCTCCCCCCTGCTGTCCCCGTCCCCACCAGGCTGCCCTTGGGATGGACCTTTTCACTCTTTCT  
TTATATTCTAGACAGTCTCTGTTGTCTCATTGTGTTGCTGTCCCATTTTTTCAGGTGAGGGTACCGGGGTAGGGGA  
GTGGCCTGCCAGGGTCACACTATGAGAGGCCCCCACCTGCTGCCTTTGGACGCAGCCCCCTGCTGCTGCATCCA  
CCACCCCTTCTTACAGATCAGCGCGCACATGGGGTCTTCTGCTGTCTCTGGGGCGAGTCTGGAGCCCCCTGGGG  
GGCTCTGTTGGTGTGATTGAGACCCGTTTCTCTTTTTTAAACTGCACATCATAACAGGGCTTCATGTGAGCATG  
ATTTTAATCATAAATGCACTTCTGAGGTGCAAGGATTGAGCTCAGAGCTGCTCTGTTGTGGCAAACCCAAAGTG  
CTGTGATGTGTGGCTGTGACAAGCCTGGAGCGGGTCTGTGAGCGCCGCTCTGTCTCCTGCTTCTCTACTGAAC  
GCCTGCTGAATGTCCGCTGACTCAGCTGTGCTGCTTTCAGCCCTCCTGTGAGGGGCGGTCCAGTGACAGATG  
TTTTTCAAGTTCCTCAGTTTGTACTGAAATTAGGGATTTCATCAGGCAGGAAGCAGGCAGGCCTCTCAGAAGGGA  
GAGGAGGCCTCCAAATCTATTGAGTCCCCACAGTTTGCTCAAGCCCAGGCAAATTTCTGTGATTAAATGAATTC  
ATCAGTTCCTCCAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 990**

MAASPLRDCQAWKDARLPLSTTSNEACKLFDATLTQYVKWTNDKSLGGIEGCLSKLKAADPTFVMGHAMATGLV  
LIGTGSSVKLDKELDLAVKTMVEISRTQPLTRREQLHVS AVETFANGNFPKACELWEQILQDHPTDMLALKFSHD  
AYFYLG YQEQMRDSVARIYPFWTPDIPLSSYVKGIYSFGLMETNFYDQAEKLAKEALSINPTDAWSVHTVAHIHE  
MKA EIKDGLEFMQHSETLWKDS DMLACHNYWHWALY LIEKGEYEAALTIYDTHILPSLQANDAMLDVVDSCSMLY  
RLQMEGVSVGHGGRMSCLWPGSTAETTSCCSMTHTS

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**FIGURE 991**

CGGACGCGTGGGCGAGGTGGCAATTGGGGAAGGGGTTCTGGGCTGCCGACGGCACACAGGCCAGAGCTTCGTGGA  
TACCTGCAGGGCCCCAAAGGTCCCTCCCTGTTTTGAAGAGTGAGTGATGGCTATGAGGTAGCGGCCAGGCTGATCA  
CCCCTGCGTTGGCTGGAGGCAGAATTCTGTAAATCCTCGCCAAGTCTTTCTCCAGGCCACTGGTTAGCTCATCTC  
AGCCTCCTCTGGGAGCATCAACACCAACATGGCACAGGGGACTGCAGTGGTGTGCTTTGGACCTGTGTACCCACC  
CAAGGCTAAAGGCAGAGCCAGATGGAGAAGGAAAGGCAAGTGACTTGTCCAGAGCCACTCTGTCAAAAGGGGACT  
TGAGTCCTCAGGGCTGTTGACTCCAAAGCTGACAAGCAGGAGCCAAAGTTACACCCTGTTTAAACCCTGCCTTCAAA  
GGGACGACTCTGTAAGATTCTCTGCTACTTATTCAAGTTGACACGATGCCCTTCACACTCCACCTGAGGTCCCGC  
CTTCCCTCTGCCATAAGGAGTTTGATTCTACAAAAGAAACCAAAACATCAGAAATACATCCAGCATGGCTGGAGAG  
CTCCGACCAGCCAGCCTGGTGGTCTGCCAGGTCCCTTGCTCCAGCTTTTGAAAGATTCTGCCAGGTCAACACT  
GGTCTCTACCCCTGCTGGGCCAGAGTGAGCCAGAAAAGTGGATGCTGCCCCCTCAAGGTGCTATCTCAGAGACC  
AGGATGGGCCATCCCCAGTTCTGGAAATACGAGTTCGGTGCCTGCACCGGTAGCCTGGCTTCGCTGGAGCAGTAC  
TCGGAGCAGCTGAAGGACATGGTGGCCTTCTTCTGGGCTGCAGCTTCTCCCTGGAGGAGGCCTTGAGAAAAGCG  
GGGCTCCCCAGAAGAGACCCAGCAGGTACAGCCAGACAACAGTGCCTTGTTGTTACCCATGCTGGCTTCTGCTGC  
CCTCTGGTGGTCACGATGAGGCCCATTTCCCAAGGACAAGCTGGAAGGGCTGGTGGGGCTGCTGCTCCCTCGGA  
GGTGAGCAGGGGCAACCTGTTACATGGGCGACCCAGAACTGTTGGGAATCAAAGAGCTTTCCAAACCTGCCTAC  
GGGGATGCCATGGTGTGTCCCCCAGGGGAGGTTCCAGTGTTCTGGCCTTCTCCGCTGACCAGTCTCGGAGCTGTC  
AGCAGCTGTGAGACCCCACTGGCTTTTGCCAGCATCCAGGCTGCACAGTTATGACTGACCTGAAGGATGCAAAG  
GCTCCACCTGGTTGTCTCACCCAGAGAGAATTCCAGAGGTCCATCACATTTCCCAAGATCCTCTGCACTACAGC  
ATCGCGTCAGTCTCTGCTTCTCAGAAGATCAGAGAACTAGAGTCTATGATCGGCATAGACCCAGGGAACCGGGGG  
ATTGGGCACCTGCTCTGTAAAGATGAGCTGCTGAAGGCCTCTCTCTCGCTGTCCCATGCCCGCTCAGTGCTCATC  
ACCACTGGGTTCCCCACACATTTCAATCATGAGCCTCCAGAAGAGACAGATGGCCCACCAGGAGCTGTTGCTCTG  
GTTGCCTTCTGCAAGCCTTGAGAAAGGAGGTGCCATAATCGTTGACCAGAGAGCCTGGAACCTTGACCAGAAG  
ATTGTTGAAGATGCTGTTGAGCAAGGTGTTCTGAAGACGCAGATCCCGATATTAACCTTACCAAGGTGGATCAGTG  
GAAGCTGCTCAGGCATTCTGTGCAAAAATGGGGACCCGACAGACCTAGATTTGACCACCTGGTGGCCATAGAG  
CGTGCCGGAAGAGCTGCTGATGGCAATTACTACAATGCAAGGAAGATGAACATCAAGCACTTGGTTGACCCCAT  
GACGATCTTTTTCTTGCTGCGAAGAAGATTCTGGAATCTCATCAACTGGAGTCGGTGATGGAGGCAACGAGCTT  
GGGATGGGTAAAGTCAAGGAGGCTGTGAGGAGGCACATACGGCACGGGGATGTCATCGCTGCGACGTGGAGGCT  
GACTTTGCCGTCAATTGCTGGTGTCTTAACCTGGGGAGGCTATGCCCTGGCCTGCGCACTCTACATCCTGTACTCA  
TGTGCTGTCCACAGTCAGTACCTGAGGAAAGCAGTCGGACCCCTCCAGGGCACCTGGAGATCAGGCCTGGACTCAG  
GCCCTCCCGTCGGTCATTAAGGAAGAAAAATGCTGGGCATCTTGGTGCAGCACAAAGTCCGGAGTGGCGTCTCG  
GGCATCGTGGGCATGGAGGTGGATGGGCTGCCCTTCCACAACACCCACGCCGAGATGATCCAGAAGCTGGTGGAC  
GTCACCACGGCACAGGTGTAAACCGTCCATGTTCCGTGTGAGCAGAGTCCCTACCAACGGGCAGGTCTGCATCCGG  
GGAGAATGCAGCTGCTTCTGGCGACAATCCTGCTAGTAAACACTGGTCTTCGGTGAGCAACGAACACTCGCCTGG  
CCTGGGAAACTGCATGCCCACTTTCTGGGAGGGGTTAGTGCAGGTGCCGTGGACAAAGGACAACATTTCTCTGGG  
GCTTTTTAACTTTTATTCCTAAGACTCTAAAGGCGTTGATTTCACCCCTCCTTCACTCTGGCTTCTTCAGGCAAC  
CCACGTGGTCTCCTGTGAGAATCTTCTCGACAGTTACTTATGGGGACACTTGTGAACAATTAAGTCCAGGCAGA  
GCATGAGAAACAACATTCCCAGGCCATGTAGGATAGGATACTCCAGACTCCAGTCATCTCCCCATCCATGGTT  
TCTGTTACTCATGGTTTCAAGTTACTCATAGCCAACCTGCAGACCGAAAAATACTAAATGAAAAATTTAGAAATAAA  
CAACTCTTAAGTTTTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 992**

MPFTLHLRSRLPSAIRSLILQKKPNIRNTSSMAGELRPASLVVLPRSLAPAFERFCQVNTGPLPLLQGSEPEKWM  
LPPQGAISETRMGHPQFWKYEFGACTGSLASLEQYSEQLKDMVAFFLGCSFSLEEALAKAGLPRRDPAGHSQTTV  
PCVTHAGFCCPLVVTMRPIPKDKLEGLVRACCSLGGEQGQPVHMGDPPELLGIKELSKPAYGDAMVCPPEVPVFW  
PSPLTSLGAVSSCETPLAFASIPGCTVMTDLKDAKAPPGCLTPERIPEVHHISQDPLHYSIASVSASQKIRELES  
MIGIDPGNRGIGHLLCKDELLKASLSLSHARSVLITTGFPTHFNHEPPEETDGPPGAVALVAFLQALEKEVAIIV  
DQRAWNLHQKIVEDAVEQGVLTQIPILTYQGGSVAAQAFLLCKNGDPQTPRFDHLVAIERAGRAADGNYYNARK  
MNIKHLVDPIDDLFLAAKKIPGISSTGVGDGGNELGMGKVKEAVRRHIRHGDVIACDVEADFAVIAGVSNWGGYA  
LACALYILYSCAVHSQYLRKAVGPSRAPGDQAWTQALPSVIKEEKMLGILVQHKVRSVSGIVGMEVDGLPFHNT  
HAEMIQKLVDVTTAQV



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**FIGURE 993**

GGGCAAACCTTTGAAAAATATTCTAAATGAAAATGACATAGTATTTCATAGTGGAAGTGCCTTTAGAAAAGG  
AAGAAACAAGTCATATTGAAGAACTTCAATCTGAAGAACTGCCATATCTGATTTCTCTACTGGCGAAAATGTTG  
GACCACTTGCTTTACCAGTTGGGAAGGCAAGGCAGTTAATTGGACTTTACACC**ATG**GCTCACAAATCCTAATATGA  
CCCATTTGAAGATTAATCTGCCTGTTACTGCCCTTCCCCCCTTTGGGTAAGATGTGACAGTTCAGATCCTGAAG  
GTACTTGTTGGCTAGGAGCTGAGCTTATCACAACAAACAACAGCATTACAGGAATTGTCTTATATGTGGTCAGTT  
GTAAAGCTGATAAAAAATTATTCTGTAAATCTTGAAAACCTAAAAAATTTACACAAGAAAAGACATCACTTGTCTA  
CTGTAACATCCAAAGGCTTTGCCCAGTATGAGCTCTTTAAGTCCTCTGCCTTGGATGATAACAATCACAGCATCAC  
AAACTGCGATCGCTTTGGATATTTCTGGAGTCCTGTGGATGAGATTCTTCAAATCCCTCCACTCTCTTCAACTG  
CAATCT**TGA**ATATTAAAGTGGAATCAGGAGAGCCCAGAGGTCCTTTGAATCATCTCTACAGAGAAGTGAATTTCT  
TCTTGTTTTGGCTGATGGTTTGAGGACTGGTGTCACTGAATGGCTCGAGCCCCTGGAAGCAAAATCTGCTGTTGA  
ACTTGTTTCAAGGAATTTCTGAATGACTTAAATAAGCTGGATGGATTTGGTGATTCTACAAAAAAGACACTGAGGT  
TGAGACCTTGAAGCATGACACTGCTGCAGTCGATCGTTCCGTCAAGCGTCTTTTCAAAGTTCGGAGTGATCTTGA  
TTTTGCTGAGCAACTGTGGTGCAAAATGAGCAGTAGTGTGATTTTCATACCAAGACTAGGTGAAGTGTTTCACATT  
GATCATCCAGAGTCTACAACGTGGTGATATACAGCCATGGCTCCATAGTGGAAGTAACAGTTTACTAAGTAAGCT  
CATTTCATCAGTCTTATCATGGAACCATGGACACAGTTTCTCTCAGTGGGACTATTCCAGTTCAAATGCTTTTGG  
AATTGGTTTGGACAACTAAAGAAAGATTATATCAGTTTTTTTCATAGGTCAGGAACTTGTCATCTTTGAATCATTT  
GGAATACTTCATTGCTCCATCAGTAGATATACAAGAACAGGTTTATCGTGTCCAAAAACTCCACCATATTCTAGA  
AATATTAGTCAGTTGCATGCCTTTTCATTAAATCTCAACATGAAGTCCCTCTTTTCTTTAACACAGATCTGCATAAA  
GTATTACAAACAAAATCCTCTTGATGAGCAACACATTTTTTCAGCTGCCAGTCAGACCAACTGCTGTAAAGAAGTT  
ATATCAAAGTGAGAAGCCACAGAAATGGAGAGTGGAATATATAGTGGTCAAAAGAAGATTAAGACAGTTTGGCA  
ACTGAGTGACAGCTCAGCCATAGGCCATCTGAATTTTTACAAACCTGATTTTTTCGGAATTAACACTAAGCGGTAG  
CCTGGAAGAAAGGATATTCTTTACTAACATGGTTACCTGCAGCCAGGTGCATTTCAGTGAAGTGTGCTGATGAA  
GTCCTCTATAAGCACAAAGCC

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**FIGURE 994**

MAHNPNMTHLKINLPVTALPPLWVRCDSSDPEGTCWLGAELITNNSITGIVLYVVSCKADKNYSVNLENLKNLH  
KKRHHLSTVTSKGFAQYELFKSSALDDTITASQTAIALDISWSPVDEILQIPPLSSTAI

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**FIGURE 995**

GTTCGGAGCGGGCGAGCGGAGTTAGCAGGGCTTTACTGCAGAGCGCGCCGGGCACTCCAGCGACCGTGGGGATCA  
GCGTAGGTGAGCTGTGGCCTTTTTCGAGGTGCTGCAGCCATAGCTACGTGCGTTCGCTACGAGGATTGAGCGTCT  
CCACCCAGTAAGTGGGCAAGAGGCGGCAGGAAGTGGGTACGCAGGGGCGCAAGGCGCACAGCCTCTAGACGACTC  
GCTTTCCTCCGGCCAACCTCTGAAGCCGCGTCCTACTTTGACAGCTGCAGGGCCGCGGCCTGGTCTTCTGTGCT  
TCACCATCTACATAAATGAATCCCAGTATGAAGCAGAAACAAGAAGAAATCAAAGAGAATATAAAGAATAGTTCTG  
TCCCAAGAAGAACTCTGAAGATGATTACGCCCTTCTGCATCTGGATCTCTTGTTGGAAGAGAAAATGAGCTGTCCG  
CAGGCTTGTCAAAAGGAAACATCGGAATGACCACTTAACATCTACAACCTCCAGCCCTGGGGTTATTGTCCAG  
AATCTAGTGAATAAATACTTTGGAGGAGTCACCCAGGAGTCATTTGATCTTATGATTAAAGAAAATCCATCCT  
CTCAGTATTGGAAGGAAGTGGCAGAAAAACGGAGAAAGGCGCTGTATGAAGCACTTAAGGAAAATGAGAACTTC  
ATAAAGAAATTGAACAAAAGGACAATGAAATTGCCCGCCTGAAAAAGGAGAATAAAGAACTGGCAGAAGTAGCAG  
AACATGTACAGTATATGGCAGAGCTAATAGAGAGACTGAATGGTGAACCTCTGGATAATTTTGAATCACTGGATA  
ATCAGGAATTTGATTCTGAAGAAGAACTGTTGAGGATTCTCTAGTGGAAGACTCAGAAATTGGCACGTGTGCTG  
AAGGAACTGTATCTTCTCTACGGATGCAAAGCCATGTATATGAATGCATTAATATTTGACTGTTGAGAATTTT  
ACTGCCGAAGTTTACCTCCACTAGTTCTTTGTAGCAGAGTACATAACTACATAATGCCAACTCTGGAATCAAATT  
TCCTTGTTTGAATCCTGGGACCCTATTGCATTAAAGTACAAATACTATGTATTTTAAATCTATGATGGTTTATGT  
GAATAGGATTTTCTCAGTTGTCAGCCATGACTTATGTTTATTACTAAATAAACTTCAAACCTCCTGTGGAAAAAAA  
AAAAAAAAAAAAAAAAAAAAA

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**FIGURE 996**

MNPSMKQKQEEIKENIKNSSVPRRTLKMIQPSASGSLVGRENELSAGLSKRKHRNDHLTSTTSSPGVIVPESSEN  
KNLGGVTQESFDLMIKENPSSQYWKEVAEKRRKALYEALKENEKLHKEIEQKDNEIARLKKENKELAEVAEHVQY  
MAELIERLNGEPLDNFESLDNQEFDSEEETVEDSLVEDSEIGTCAEGTVSSSTDAPCI

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**FIGURE 997**

ACGAGGGGAGCTCCGGCTGCGTCTTCCCGCAGCGCTACCCGCC**ATG**CGCCTGCCGCGCCGGGCCGCGCTGGGGCT  
 CCTGCCGCTTCTGCTGCTGCTGCCGCCCCGCGCCGGAGGCCGCCAAGAAGCCGACGCCCTGCCACCGGTGCCGGGG  
 GCTGGTGGACAAGTTTAACCAGGGGATGGTGGACACCGCAAAGAAGAACTTTGGCGGCGGGAACACGGCTTGGGA  
 GGAAAAGACGCTGTCCAAGTACGAGTCCAGCGAGATTGCGCTGCTGGAGATCCTGGAGGGGCTGTGCGAGAGCAG  
 CGACTTCGAATGCAATCAGATGCTAGAGGCGCAGGAGGAGCACCTGGAGGCCTGGTGGCTGCAGCTGAAGAGCGA  
 ATATCCTGACTTATTCGAGTGGTTTTGTGTGAAGACACTGAAAGTGTGCTGCTCTCCAGGAACCTACGGTCCCGA  
 CTGTCTCGCATGCCAGGGCGGATCCCAGAGGCCCTGCAGCGGGAATGGCCACTGCAGCGGAGATGGGAGCAGACA  
 GGGCGACGGGTCCCGCGGTGCCACATGGGGTACCAGGGCCCGCTGTGCACTGACTGCATGGACGGCTACTTCAG  
 CTCGCTCCGGAACGAGACCCACAGCATCTGCACAGCCTGTGACGAGTCCTGCAAGACGTGCTCGGGCCTGACCAA  
 CAGAGACTGCGGCGAGTGTGAAGTGGGCTGGGTGCTGGACGAGGGCGCCTGTGTGGATGTGGACGAGTGTGCGGC  
 CGAGCCGCCTCCCTGCAGCGCTGCGCAGTTCTGTAAGAACGCCAACGGCTCCTACACGTGCGAAGATGTGGACGA  
 GTGCTCACTAGCAGAAAAAACCTGTGTGAGGAAAAACGAAACTGCTACAATACTCCAGGGAGCTACGTCTGTGT  
 GTGTCCTGACGGCTTCGAAGAAACGGAAGATGCCTGTGTGCCGCCGGCAGAGGCTGAAGCCACAGAAGGAGAAAG  
 CCCGACACAGCTGCCCTCCCGCAAGACCTG**TAA**TGTGCCGGACTTACCCTTTAAATTATTCAGAAGGATGTCCC  
 GTGGAAAATGTGGCCCTGAGGATGCCGTCTCCTGCAGTGGACAGCGCGGGGAGAGGCTGCCTGCTCTTAACGG  
 TTGATTCTCATTGTGCCCTTAAACAGCTGCATTTCTTGGTTGTTCTTAAACAGACTTGATATTTTTGATACAGTT  
 CTTTGTAAATAAAATTGACCATTGTAGGTAATCAGGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 998**

MRLPRRAALGLLPLLLLLPPAPEAAKKPTPCHRCRGLVDKFNQGMVDTAKKNFGGGNTAWEEKTLSKYESSEIRL  
LEILEGLCESSDFECNQMLEAQEEHLEAWWLQLKSEYPDLFEWFVCVTKLVCCSPGTYGPDCLACQGGSQRPCSG  
NGHCSGDGSRQGDGSCRCHMGYQGPLCTDCMDGYFSSLRNETHSICTACDESKTCSGLTNRDCGECEVGWVLDE  
GACVDVDECAAEPFPCSAAQFCKNANGSYTCEDVDECSLAEKTCVRKNENCYNTPGSYVCVCPDGFEEDEDACVP  
PAEAEATEGESPTQLPSREDL

[illegible]

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**FIGURE 1000**

MPLDPYHSVTWGHQAQGSHHFVFGELRVRP ILES LRDEPD DP RP SREGPAGRVGALARDGPEPCDAASPPGGASC  
APELARPREDKSAQQAKLEGGTRLCCRCPEESRLVPGGAVSPGDHVLEVSGTRGTCGCRPRRHAGPELAHS



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**FIGURE 1001**

CGCTGTTGTTAGTCACCGCGGAGCCGCCGAAACCTGCAGGAGTCTACTATGCAACTGCATACTGG**ATG**CCTGCTG  
AAAAGACAGTACAAGTCAAAAATGTAATGGACAAGAATGGGGACGCCTATGGCTTTTACAATAACTCTGTGAAAA  
CCACAGGCTGGGGCATCCTGGAGATCAGAGCTGGCTATGGCTCTCAAACCTGAGCAATGAGATCATCATGTTTG  
TGGCTGGCTTTTGGAGGGTTACCTCACTGCCCCACACATGAATGACCACTACACAAACCTCTACCCACAGCTGA  
TCACGAAACCTTCCATCATGGATAAAGTGCAGGATTTTATGGAGAAGCAAGATAAGTGGACCCGAAAAATATCA  
AAGAATACAAGACTGATTCATTTTGGAGACATACAGGCTATGTGATGGCACAAATAGATGGCCTCTATGTAGGAG  
CAAAGAAGAGGGCTATATTAGAAGGGACAAAGCCAATGACCCCTGTTCAGATTCAAGTTCCTGAATAGTGTGGAG  
ATCTATTGGATCTGATTCCTCACTCTCTCCACAAAAACGGCAGCCTAAAGGTTTTTAAGAGATGGGACATGG  
GACATTGCTCCGCTCTTATCAAGGTTCTTCTGGATTTGAGAACGTCCTTTTTGCTCACTCAAGCTGGTACACGT  
ATGCAGCCATGCTCAGGATATATAAACACTGGGACTTCAACATCATAGATAAAGATACCAGCAGTAGTCGCCTCT  
CTTTTCAGCAGTTACCCAGGGTTTTTGGAGTCTCTGGATGATTTTACATTCTTAGCAGTGGATTGATATTGCTGC  
AGACCACAAACAGTGTGTTTAATAAAACCTGCTAAAGCAGGTAATACCCGAGACTCTCCTGTCTGGCAAAGAG  
TCCGTGTGGCCAATATGATGGCAGATAGTGGCAAGAGGTGGGCAGACATCTTTTCAAATACAACCTCTGGCACCT  
ATAACAATCAATACATGGTTCTGGACCTGAAGAAAGTAAAGCTGAACCACAGTCTTGACAAAGGCACTCTGTACA  
TTGTGGAGCAAATTCCTACATATGTAGAATATTCTGAACAACTGATGTTCTACGGAAAGGATATTGGCCCTCCT  
ACAATGTTCCCTTCCATGAAAAAATCTACAACCTGGAGTGGCTATCCACTGTTAGTTCAGAAGCTGGGCTTGGACT  
ACTCTTATGATTTAGCTCCACGAGCCAAAATTTCCGGCGTGACCAAGGGAAGTGACTGATACGGCATCCATGA  
AATATATCATGCGATACAACAATTATAAGAAGGATCCTTACAGTAGAGGTGACCCCTGTAATACCATCTGCTGCC  
GTGAGGACCTGAACTCACCTAACCCAAGTCCTGGAGGTTGTTATGACACAAAGGTGGCAGATATCTACCTAGCAT  
CTCAGTACACATCCTATGCCATAAGTGGTCCCACAGTACAAGGTGGCCTCCCTGTTTTTCGCTGGGACCGTTTCA  
ACAAAACCTCTACATCAGGGCATGCCAGAGGTCTACAACCTTTGATTTTATTACCATGAAACCAATTTTGAACTTG  
ATATAAAAT**TGA**AGGAGGGAGATGACGGACTAGAAGACTGTAAATAAGATACCAAAGGCACTATTTTAGCTATGTT  
TTTCCCATCAGAATTATGCAATAAAATATATTAATTTGTCAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1002**

MPAEKTVQVKNVMDKNGDAYGFYNNSVKTTGWGILEIRAGYGSQTLSNEIIMFVAGFLEGYLTAPHMNDHYTNLY  
PQLITKPSIMDKVQDFMEKQDKWTRKNIKEYKTDSEWRHTGYVMAQIDGLYVGAKKRAILEGTKPMTLFQIQFLN  
SVGDLLDLIPSLSPKNGSLKVFKRWDMGHCSALIKVLPGFENVLFAHSSWYTYAAMLRIYKHWDNIIDKDTSS  
SRLSFSSYPGFLESDDFYILSSGLILLQTTNSVFNKTLKQVIPETLLSWQVRVANMMADSGKRWADIFSKYN  
SGTYNNQYMVLDLKKVKNHSLDKGTLYIVEQIPTTYVEYSEQTDVLRKGYWPSYNVPFHEKIYNWSGYPLLQKL  
GLDYSYDLAPRAKIFRRDQGVTDTASMKYIMRYNNYKDPYSRGDPCNTICREDLNSPNPSPGGCYDTKVADI  
YLASQYTSYASGPTVQGLPVFRWDRFNKTLHQGMPEVYNFDFITMKPILKLDIK

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**FIGURE 1003**

CGGAAGCAGGAAGTGAGTTTGCGAACGGAGCAGCTGCTGCAGGGGCC**ATG**GCGGACACCCAGTACATCCTGCCCA  
ATGACATCGGCGTGTCTAGCCTGGACTGCCGTGAGGCCTTCCGCCTGCTGTACCCACAGAGCGCCTCTATGCCT  
ACCACCTGTCCCGTGCCGCCTGGTACGGAGGCCTGGCTGTGCTGCTTCAGACCTCCCCTGAGGCCCCCTACATCT  
ATGCTCTGCTCAGCCGCCTCTTCCGCGCCAGGACCCCGACCAGCTGCGCCAACATGCCCTGGCTGAAGGCCTTA  
CCGAGGAGGAGTATCAGGCGTTCTTGGTCTATGCCGCGGGTGTTTACTCCAACATGGGCAACTACAAGTCCTTTG  
GTGACACCAAGTTTGTTCCTCAACTTGCCCAAGGAAAAGCTGGAACGGGTGATCCTAGGGAGTGAGGCTGCTCAGC  
AGCACCAGAAGAAGTCAGGGGCCTCTGGCAGACCTGCGGGGAGCTTATGTTCTCTCTGGAGCCAAGGCTTCGAC  
ACCTCGGACTGGGGAAGGAGGGAATCACACCTATTTCTCTGGGAATTGTACCATGGAAGATGCCAAATTGGCCC  
AGGACTTTCTGGACTCACAGAACCTCAGTGCCTACAACACCCGGCTCTTCAAAGAGGTCGATGGAGAAGGGAAGC  
CCTACTACGAGGTGCGGCTGGCTTCTGTGCTTGGCTCAGAGCCTTCCCTGGACTCTGAGGTGACTTCCAAGCTGA  
AGAGCTATGAATTCGGGGGAAGCCCTTTCCAGGTGACCCGGGGGACTACGCGCCCATCTCCAGAAGGTGGTGG  
AGCAGCTGGAGAAAGCCAAGGCCTATGCAGCCAACAGCCACCAGGGGCAGATGCTGGCCCAGTATATAGAGAGCT  
TCACCCAGGGCTCCATCGAGGCCCACAAGAGGGGCTCCCGCTTCTGGATCCAGGACAAAGGCCCCATCGTGGAGA  
GTTACATCGGGTTTCATCGAGAGCTACCGCGACCCCTTTGGTTCCCGAGGAGAATTTGAAGGTTTCGTAGCTGTGG  
TGAACAAGGCCATGAGTGCCAAGTTTGAGCGGCTGGTGGCGAGCGCAGAGCAGCTGCTGAAGGAGCTGCCCTGGC  
CCCCAACCTTTGAGAAGGACAAGTTCTCACCCCTGACTTCACCTCCCTGGATGTTCTCACCTTCGCTGGCTCCG  
GCATCCCTGCCGCATCAACATCCCCAACTACGATGATCTGAGGCAGACGGAAGGCTTTAAGAACGTGTGCTGG  
GGAATGTGCTGGCTGTGGCCTACGCCACGCAGCGGGAGAAGCTTACCTTTCTGGAGGAGGATGACAAGGACCTGT  
ACATCCTCTGGAAGGGGCCCTCCTTCGATGTGCAGGTGGGCCTGCACGAGCTGCTGGGCCATGGCAGTGGCAAGC  
TCTTCGTACAGGACGAAAAGGAGCATTCAACTTTGACCAGGAAACAGTGATCAACCCAGAGACGGGCGAGCAGA  
TTCAGAGCTGGTATCGGAGCGGGGAGACCTGGGATAGCAAGTTCAGCACCATCGCCTCCAGCTACGAAGAGTGCC  
GGGCTGAGAGCGTGGGTCTCTACCTCTGTCTCCACCCGCAAGTGCTGGAGATCTTTGGCTTTGAGGGGGCTGATG  
CGGAGGACGTGATCTACGTGAAGTGGCTCAACATGGTTTCGGGCCGGGCTGCTCGCTCTGGAGTTCTACACACCTG  
AGGCCTTCAACTGGCGACAGGCCCATATGCAGGCCCGGTTTGTGATCCTGAGAGTCTTGCTGGAGGCTGGCGAGG  
GACTCGTTACCATCACTCCACACAGGCTCCGATGGGCGCCAGATGCCCGGTCCGCCTCGACCGCAGCAAGA  
TCCGGTCTGTGGGCAAGCCTGCTCTAGAGCGCTTCTGCGGAGACTTCAGGTGCTGAAGTCCACAGGGGATGTGG  
CCGGAGGGCGGGCCCTGTACGAGGGGTATGCAACGGTCACTGATGCGCCCCCGAGTGCTTCTCACCCCTCAGGG  
ACACGGTGCTGCTGCGTAAGGAATCTCGGAAGCTCATTGTTACGCCAACACTCGCCTTGAAGGCTCAGACGTGC  
AGCTTCTGGAATACGAGGCGTCAGCTGCTGGCCTCATCCGATCCTTCTCTGAGCGTTTCCAGAGGATGGACCCG  
AGTTGGAGGAGATCCTCACACAGCTGGCCACAGCCGATGCCCGATTCTGGAAGGGCCCCAGTGAGGCCCCATCTG  
GCCAAGCT**TGA**GGAAGATGTGTGGCCTTGCCCCAATTCCATCAGACCAAGGCTGCAAGTGGCCCTCCATTTCGTG  
TGTGATTTAGGGGCTGGGGAGGGGGAGGGGCAGGAGCTTGGACCTTGGTACTACCTCAGCTGAGGGTGGTGACA  
CAACCCCTTCCATTTGTCAGCACTTTCCAGCCTGCCAATTGCTTCCCCTCTGTGATCTCATTTCATCTGCACTGC  
CATACGTGGAGTGAGCAAGACAGGGCTTACCATCCTGTCTACCAGATGAGGAAATGGCAGTTCTGAGAAGTCACT  
GGTCTAGATCCCGCAGGTGGCACGTGACAGCTAGGGTTCAAACGTTCTCACCAAATCCAATGCTCCTCACATAT  
TAATTTTATAACCAGACAAATAAATATTAGAGACAACCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1004**

MADTQYILPNDIGVSSLDCEAFRLSPTERLYAYHLSRAAWYGGGLAVLLQTSPEAPYIYALLSRLFRAQDPDQL  
RQHALAEGLTEEEYQAFVLVYAAGVYSNMGNYKSFQDTKFVFNLPKEKLERVILGSEAAQQHPPEVRGLWQTCGEL  
MFSLEPRLRHLGLGKEGITYYFSGNCTMEDAKLAQDFLDSQNLSAYNTRLFKEVDGEGKPYEVRLASVLGSEPS  
LDSEVTSKLKSYEFRGSPFQVTRGDYAPILQKVVEQLEKAKAYAANSHQGQMLAQYIESFTQGSIEAHKRGRSRFW  
IQDKGPIVESYIGFIESYRDPFGSRGEFEGFVAVVNKAMSAKFERLVASAEQLLKELPWPPTFEKDKFLTPDFTS  
LDVLTTFAGSGIPAGINIPNYDDLQTEGFKNVSLGNVLAVAYATQREKLTFLLEDDKDLYILWKGPSFDVQVGLH  
ELLGHGSGKLFVQDEKGAFNFDQETVINPETGEQIQSWYRSGETWDSKFSTIASSYEECRAESVGLYLCLHPQVL  
EIFGFEGADAEDVIYVNWLNLMVRAGLLALEFYTPFAFNWRQAHMQARFVILRVLLEAGEGLVTITPTTGSDGRPD  
ARVRLDRSKIRSVGKPALERFLRRLQVLKSTGDVAGGRALYEGYATVTDAPPECFLTTLRDTVLLRKESRKLIVQP  
NTRLEGSQVQLLEYEASAAGLIRSFSEFPEGDGPELEEILTQLATADARFWKGPSEAPSGQA

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**FIGURE 1005A**

CGATAACGATTTGTGTTGTGAGAGGCGCAAGCTGCGATTTCTGCTGAACTTGGAGGCATTTCTACGACTTTTCTC  
TCAGCTGAGGCTTTTCTCCGACCCTGATGCTCTTCAATTCGGTGCTCCGCCAGCCCCAGCTTGGCGTCTTGAGA  
AATGGATGGTCTTCACAATACCCTCTTCAATCCCTTCTGACTGGTTATCAGTGCAGTGGTAATGATGAACACACT  
TCTTATGGAGAAACAGGAGTCCCAGTTCCTCCTTTTGGATGTACCTTCTCTTCTGCTCCCAATATGGAACATGTA  
CTAGCAGTTGCCAATGAAGAAGGCTTTGTTTCGATTGTATAACACAGAATCACAAAGTTTCAGAAAGAAGTGCTTC  
AAAGAATGGATGGCTCACTGGAATGCCGTCTTTGACCTGGCCTGGGTTCCTGGTGAACTTAAACTTGTTACAGCA  
GCAGGTGATCAAACAGCCAAATTTTGGGACGTAAAAGCTGGTGAGCTGATTGGAACATGCAAAGGTCATCAATGC  
AGCCTCAAGTCAGTTGCCTTTTCTAAGTTTGAGAAAGCTGTATTCTGTACGGGTGGAAGAGATGGCAACATTATG  
GTCTGGGATACCAGGTGCAACAAAAAGATGGGTTTTATAGGCAAGTGAATCAAATCAGTGGAGCTCACAATACC  
TCAGACAAGCAAACCCCTTCAAACCCCAAGAAGAAACAGAATTCAAAGGACTTGCTCCTTCTGTGGATTTCCAG  
CAAAGTGTTACTGTGGTCTCTTTCAAGACGAGAATACCTTAGTCTCAGCAGGAGCTGTGGATGGGATAATCAAA  
GTATGGGATTTACGTAAGAATTATACTGCTTATCGACAAGAACCCATAGCATCCAAGTCTTTCTGTACCCAGGT  
AGCAGCACTCGAAAACCTTGATATTCAAGTCTGATTTTGGATTCCACTGGCTCTACTTTATTTGCTAATTGCACA  
GACGATAACATCTACATGTTTAAATATGACTGGGTGGAAGACTTCTCCAGTGGCTATTTTCAATGGACACCAGAAC  
TCTACCTTTTATGTAAAATCCAGCCTTAGTCCAGATGACCAGTTTTTATGTCAGTGGCTCAAGTGATGAAGCTGCC  
TACATATGGAAGGTCTCCACACCCTGGCAACCTCCTACTGTGCTCCTGGGTCACTTCTCAAGAGGTACAGTCTGTG  
TGCTGGTGTCCATCTGACTTCACAAAGATTGCTACCTGTTCTGATGACAATACACTAAAAATCTGGCGCTTGAAT  
AGAGGCTTAGAGGAGAAACCAGGAGGTGATAAACTTCCACGGTGGGTGGGCCTCTCAGAAGAAAAAAGAGTCA  
AGACCTGGCCTAGTAACAGTAACGAGTAGCCAGAGTACTCCTGCCAAAGCCCCAGGGTAAAGTGCAATCCATCC  
AATTCTTCCCCGTATCCGCAGCTTGTGCCCCAAGCTGTGCTGGAGACCTCCCTCTTCTTCAAATACTCCTACG  
TTCTCTATTTAAACCTCTCCTGCCAAGGCCCGGTCTCCCATCAACAGAAGAGGCTCTGTCTCCTCCGTCTCTCCC  
AAGCCACCTTCATCTTTCAAGATGTCGATTAGAACTGGGTGACCCGAACACCTTCTCATCACCACCCATCACT  
CCACCTGCTTCGGAGACCAAGATCATGTCTCCGAGAAAAGCCCTTATTCTGTGAGCCAGAAGTCATCCCAAGCA  
GAGGCTTGCTCTGAGTCTAGAAATAGAGTAAAGAGGAGGCTAGACTCAAGCTGTCTGGAGAGTGTGAAACAAAAG  
TGTGTGAAGAGTTGTAAGTGTGTGACTGAGCTTGATGGCCAAGTTGAAAATCTTCATTTGGATCTGTGCTGCCTT  
GCTGGTAACCAGGAAGACCTTAGTAAGGACTCTCTAGGTCTTACCAAATCAAGCAAAATTGAAGGAGCTGGTACC  
AGTATCTCAGAGCCTCCGTCTCCTATCAGTCCGTATGCTTCAGAAAGCTGTGGAACGCTACCTCTTCTTTGAGA  
CCTTGTGGAGAAGGGTCTGAAATGGTAGGCAAAGAGAATAGTTCCCCAGAGAATAAAAACTGGTTGTTGGCCATG  
GCAGCCAAACGGAAGGCTGAGAATCCATCTCCACGAAGTCCGTATCCAGACACCCAATTCCAGGAGACAGAGC  
GGAAAGACATTGCCAAGCCCGGTACCATCACGCCCAGCTCCATGAGGAAAATCTGCACATACTTCCATAGAAAAG  
TCCCAGGAGGACTTCTGTGGTCTGAACTCAACAGAAATTATAGATTCTAATCTGAGTGAGTTACTGAGCTTTG  
GTCCACTAAAACAAGCTGAGCTTTGGTCCACTAAAACAAGATGAAAAATACAAGAGTGACTCTATAACTCTGGTC  
TTAAGAAAGCTGCCTTTTCAATTTTATAGACAAAATCTTTTCAACGCTGAAATGTACCTAATCTGGTTCTACTACC  
ATAATGTATATGCAGCTTCCCAGGATGAATGCTGTGTTAAATTTTATAAAGTAAATTTGTCACTCTAGCATTT  
TGAATGAATAGTCTTCACTTTTTAAATTATTCTCTCTATAAATGACATCCCAGTTTATGGAGGCAAAAA  
ACAAGTTTCTTGTTATCCTGAACTTTCTATGCTCAGTGGAAGTATCTGCCAGCCACAGCATGAGGCCTGTGAA  
GGCTGACTGAGAAATCCTCTGCTGAAGACCCCTGGTTCTGTTCTGCCCTCAACATGTATAATTTTATTTGAAATA  
CATAATCTTTTCACTATGCTTTTGTGGGGTTTTTTTTAAGTATGTGTAAAAATGTGATGCTCAGATAAGTACATT  
TATATCAGTTCAGTGTTAAATGCAGTCTCTTGAGTTAAAGTCATCTTTATTTTAAATGCAGTGATAAATGTCAA  
CTCTTCGGAGAACTAGGAGAACAAACAGAAAGCTGTGTTTGTCTTTTTTCTCTCAAATATATCTCCCGTATG  
AGATTTTCAGTCCCATGTTTTTACCAAGCAATCTGCTATGTCAGCCAACCCAACATCACTTTCTACAGGAGGTT  
ATGATTTTTGCCATTTACTAGAGGAAGATGTTTTATGAAATCAATTTGGGGTTTGAATTCAGGTGCAGTCATCAG  
TTCTTTAGGGGCTGCAATGTTTTAAAAAAAATAAGTCATCAGATTTTAAAGAAAAAGTGATGATTTCTTATTGAT  
ATTTTTGTAAACAGAATATAGCTCTTAACTGAAAATCCAGAACCAAGATAAATCTTGAGTTTCTTTTTCATGTA  
CATAAAAAGCAATAGCCTTTTAGTATAGATAGCCCTGAGCCAAAAAGTAATAGAATTTTCTCTAGATATTTAATA  
CAGAGAGTGTATAGACTGACTCTAAGTTAATAATGTGCAAAATATCTTAAACATCCCTCCCTTATTCAACAATT  
ATGTATCAGTGATCTTGAACCATTTGTTTTATATTTTTTACCTTTGTAACCTCATGGAAAGAGGCTTTACATACTT  
TCTATGTACTATTTACTTAGAAGGGAGCCCCCTTCCAGTCATGAACTTCATTTGTTTTATCCATATCCCTGAGG

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**FIGURE 1005B**

ACTGTGTAGACTTTATGTCAGTTCTGTGTAGACTTTATGTCAGTTTTTGTTCATTATTTGAAAAATCTATTCTGACA  
ACTTTTTTAATTCCTTTGATCTTATAAGTTAAAGCTGTAACAAGCTGAAATTGCATGGATCAAGTAAGCATAGTTTT  
ATCCAGGGAGAAAAATAAAAGGAAGCCATAGAATTGCTCTGGTCAAACCAAGCACACCATAGCCTTAAGTGAAT  
ATTTAGGAAATCTGCCTAATCTGCTTATATTTGGTGTTTGTGTTTTTGTACTGTTGGGCTTTGGGAAGATGTTATTT  
ATGACCAATATCTGCCAGTAACGCTGTTTATCTCACTTGCTTTGAAAGCCAATGGGGGAAAAAATCCATGAAAA  
AAAAAGATTGATAAAGTAGATGATTTTGTGTTGTATCCCTACCCATCTCCTGGCAGCCCTACTGAGTGAAATTGG  
GATACATTTGGCTGTCAGAAATTATACCGAGTCTACTGGGTATAACATGTCTCACTTGGAAGCTAGTACTTTTA  
AATGGGTGCCAAAGGTCAACTGTAATGAGATAATTATCCCTGCCTGTGTCCATGTCAGACTTTGAGCTGATCCTG  
AATAATAAAGCCTTTTACCTT

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**FIGURE 1006**

MLFNSVLRQPQLGVLRNGWSSQYPLQSLLTGYQCSGNDEHTSYGETGVPVPPFGCTFSSAPNMEHVLAVANEEGF  
VRLYNTEQSFRKKCFKEWMAHWNVFDLAWVPGELKLVTAAAGDQTAKFWDVKAGELIGTCKGHQCSLKSVAFSK  
FEKAVFCTGGRDGNIMVWDTRCNKKDGFYRQVNQISGAHNTSDKQTPSKPKKKQNSKGLAPSVDFQQSVTVVLFQ  
DENTLVSAGAVDGI IKVWDLRKNYTAYRQEP IASKSFLYPGSSTRKLGYSLLILDSTGSTLFANCTDDNIYMFNM  
TGLKTSPVAIFNGHQNSTFYVKSSLSRDDQFLVSGSSDEAAYIWKVSTPWQPPTVLLGHSQEVT SVCWCPSDFTK  
IATCSDDNTLKIWRLNRGLEEKPGDKLSTVGWASQKKKESRPGLVTVTSSQSTPAKAPRVKCNPSNSSPSSAAC  
APSCAGDLPLPSNTPTFSIKTSPAKARSPINRRGSVSSVSPKPPSSFKMSIRNWVTRTPSSSPPI TPPASETKIM  
SPRKALIPVSQKSSQAEACSESRNRVKRRDLSSCLESVKQKCVKSCNCVTELDGOVENLHLDLCLAGNQEDLSK  
DSLGP TKSSKIEGAGTSISEPPSPISPYASESCGTLPLPLRPCGEGSEMVGKENS SPENKNWLLAMAAKRKAENP  
SPRSPSSQTPNSRRQSGKTLPSPTITPSSMRKICTYFHRKSQEDFCGPEHSTEL

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**FIGURE 1007**

GCACGAGGGAAGAGGGTGATCCGACCCGGGGAAGGTCGCTGGGCAGGGCGAGTTGGGAAAGCGGCAGCCCCGCC  
GCCCCCGCAGCCCCCTTCTCCTCCTTTCTCCACGTCTATCTGCCTCTCGCTGGAGGCCAGGCCGTGCAGCATCG  
AAGACAGGAGGAAGTGGAGCCTCATTGGCCGGCCCGGGCGCCGGCCTCGGGCTTAAATAGGAGCTCCGGGCTCT  
GGCTGGGACCCGACCGCTGCCGGCCGCGCTCCCGCTGCTCCTGCCGGGTGATGAAAAACCCAGCCGGCCGCCG  
CCCTGGGCAAGGCCCTCTGCGCTCTCCTCCTGGCCACTCTCGGCGCCGCCGGCCAGCCTCTTGGGGGAGAGTCCA  
TCTGTTCCGCCAGAGCCCCGGCCAAATACAGCATCACCTTCACGGGCAAGTGGAGCCAGACGGCCTTCCCCAAGC  
AGTACCCCCCTGTTCCGCCCCCTGCGCAGTGGTCTTTCGCTGCTGGGGGCCGCGCATAGCTCCGACTACAGCATGT  
GGAGGAAGAACCAGTACGTACGTAAACGGGCTGCGCGACTTTGCGGAGCGCGGCGAGGCCTGGGCGCTGATGAAGG  
AGATCGAGGCGGCGGGGGAGGCGCTGCAGAGCGTGCACGCGGTGTTTTGCGCGCCCGCCGTCCCCAGCGGCACCG  
GGCAGACGTGCGCGGAGCTGGAGGTGCAGCGCAGGCACTCGCTGGTCTCGTTTGTGGTGCGCATCGTGCCAGCC  
CCGACTGGTTCTGTGGGCGTGGACAGCCTGGACCTGTGCGACGGGGACCGTTGGCGGGAACAGGCGGCGCTGGACC  
TGTACCCCTACGACGCCGGGACGGACAGCGGCTTCACCTTCTCCTCCCCAACTTCGCCACCATCCCGCAGGACA  
CGGTGACCGAGATAACGTCTCCTCTCCCAGCCACCCGGCCAACTCCTTCTACTACCCGCGGCTGAAGGCCCTGC  
CTCCCATCGCCAGGGTGACACTGGTGC GGCTGCGACAGAGCCCCAGGGCCTTCATCCCTCCCGCCCCAGTCTGC  
CCAGCAGGGACAATGAGATTGTAGACAGCGCCTCAGTTCCAGAAACGCCGCTGGACTGCGAGGTCTCCCTGTGGT  
CGTCTGGGGACTGTGCGGAGGCCACTGTGGGAGGCTCGGGACCAAGAGCAGGACTCGCTACGTCCGGGTCCAGC  
CCGCCAACAACGGGAGCCCCCTGCCCCGAGCTCGAAGAAGAGGCTGAGTGCCTCCCTGATAACTGCGTCTAAGACC  
AGAGCCCCCGAGCCCCCTGGGGCCCCCGGAGCCATGGGGTGTCGGGGGCTCCTGTGCAGGCTCATGCTGCAGGCGG  
CCGAGGCACAGGGGGTTTTGCGCTGCTCCTGACCGCGGTGAGGCCGCGCCGACCATCTCTGCACTGAAGGGCCCT  
CTGGTGGCCGGCACGGGCATTGGGAAACAGCCTCCTCCTTTCCCAACCTTGCTTCTTAGGGGGCCCCGTGTCCCG  
TCTGCTCTCAGCCTCCTCCTCCTGCAGGATAAAGTCATCCCCAAGGCTCCAGCTACTCTAAATTATGGTCTCCTT  
ATAAGTTATTGCTGCTCCAGGAGATTGTCCTTCATCGTCCAGGGGCTGGCTCCACGTGGTTGCAGATACCTCA  
GACCTGGTGTCTTAGGCTGTGCTGAGCCCACTCTCCCGAGGGCGCATCCAAGCGGGGGCCACTTGAGAAGTGAAT  
AAATGGGGCGGTTTCGGAAGCGTCAGTGTTTCCATGTTATGGATCTCTCTGCGTTTGAATAAAGACTATCTCTGT  
TGCTCAC



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**FIGURE 1008**

MENPSPAAALGKALCALLLATLGAAGQPLGGESIC SARAPAKYSITFTGKWSQTAFPKQYPLFRPPAQWSSLLGA  
AHSSDYSMWRKNQYVSNGLRDF AERGEAWALMKEIEAAGEALQSVHAVFSAPAVPSGTGQTSAELEVQRRHSLVS  
FVVRIVSPDW FVGVDSDLCDGDRWREQAALDLYPYDAGTDSGFTFSSPNFATIPQDTVTEITSSSPSHPAN SF  
YYPRLKALPPIARVTLVRLRQSPRAFIPPAPVLPSRDNEIVDSASVPETPLDCEVSLWSSWGLCGGHCGRLGTKS  
RTRYVRVQFANNGSPCPELEEEAECVPDNCV

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**FIGURE 1009**

GCTGGAGCCGGGCCGGGGCGATGTGGAGCGCGGGCCGCGGCGGGGCTGCCTGGCCGGTGCTGTTGGGGCTGCTGC  
TGGCGCTGTTAGTGCCGGGCGGTGGTGCCGCAAGACCGGTGCGGAGCTCGTGACCTGCGGGTCGGTGCTGAAGC  
TGCTCAATACGCACCACCGCGTGCGGCTGCACTCGCACGACATCAAATACGGATCCGGCAGCGGCCAGCAATCGG  
TGACCGGCGTAGAGGCGTCGGACGACGCGAATAGCTACTGGCGGATCCGCGGCGGCTCGGAGGGCGGGTGCCCGT  
GCGGGTCCCCGGTGCGCTGCGGGCAGGCGGTGAGGCTCACGCATGTGCTTACGGGCAAGAACCTGCACACGCACC  
ACTTCCCGTCGCCGCTGTCCAACAACCAGGAGGTGAGTGCCTTTGGGGAAGACGGCGAGGGCGACGACCTGGACC  
TATGGACAGTGCGCTGCTCTGGACAGCACTGGGAGCGTGAGGCTGCTGTGCGCTTACAGCATGTGGGCACCTCTG  
TGTTCTGTCAGTCACGGGTGAGCAGTATGGAAGCCCCATCCGTGGGCAGCATGAGGTCCACGGCATGCCCAGTG  
CCAACACGCACAATACGTGGAAGGCCATGGAAGGCATCTTCATCAAGCCTAGTGTGGAGCCCTCTGCAGGTCACG  
ATGAACCTCTGAGTGTGTGGATGGATGGGTGGATGGAGGGTGGCAGGTGGGGCGTCTGCAGGGCCACTCTTGGCAG  
AGACTTTGGGTTTGTAGGGGTCTCAAGTGCCTTTGTGATTAAAGAATGTTGGTCTATGA

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**FIGURE 1010**

MWSAGRGAAWPVLLGLLLALLVPGGGAAKTGAELVTCGSVLKLLNTHHRVRLHSHDIKYGSGSGQQSVTGVEAS  
DDANSYWRIRGGSEGGCPCGSPVRCGQAVRLTHVLTGKNLHTHHFPSPLSNNQEVSAFGEDGEGDDLDLWTVRCS  
GQHWEREAAVRLQHVGTSVFLSVTGEQYGSPIRGQHEVHGMPSSANTHNTWKAMEGIFIKPSVEPSAGHDEL

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**FIGURE 1011**

ACCTCCGAAACCGTAGATTCCGGGCGGTCCGAGCCGCCGGGAGCTGTAGTTCTCCCGCGGCTCAGAGAAGTAGG  
CAGAGAGCGGACCTGGCGGCCGGGCAGCATGGCGGGGCTGGAGCTCTTGTCGGA<sup>^</sup>CAGGGCTACCGGGTGGACGG  
GCGGCGCGCCGGGGAGCTGCGCAAGATCCAGGCGCGGATGGGCGTGTTGCGCGAGGCTGACGGCTCGGCCTACAT  
TGAGCAGGGCAACACCAAGGCACTGGCTGTGGTCTACGGCCCGCACGAGATCCGGGGCTCCCGGGCTCGAGCCCT  
GCCGGACAGGGCCCTAGTGAAGTGTCAATATAGTTCAGCGACCTTCAGCACAGGTGAGCGCAAGCGACGGCCACA  
TGGGGACCGTAAGTCCTGTGAGATGGGCCTGCAGCTCCGCCAGACTTTCGAAGCAGCCATCCTCACACAGCTGCA  
CCCACGCTCCCAGATTGATATCTATGTGCAGGTGCTACAGGCAGATGGTGGGACCTATGCAGCTTGTGTGAATGC  
AGCCACGCTGGCAGTGCTGGATGCCGGGATACCCATGAGAGACTTGTGTGTGCGTGCTCAGCTGGCTTCGTGGA  
CGGCACAGCCCTGGCGGACCTCAGCCATGTGGAGGAAGCAGCTGGTGGCCCCCAGCTGGCCCTGGCCCTGCTGCC  
AGCCTCAGGACAGATTGCGCTGCTTGAGATGGATGCCCCGGCTGCACGAGGACCACCTGGAGCGGGTGTGGAGGC  
TGCTGCCCAGGCTGCCCCGAGATGTGCACACCCTCTTAGATCGAGTGGTCCGGCAGCATGTGCGTGAGGCCTCTAT  
CTTGCTGGGGGACTTGACCACCCAGCCACCCATGTCCAGAATAAACCCCTCCTTGCCCCACACXXXXXXXXXX

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**FIGURE 1012**

MAGLELLSDQGYRVDGRRAGELRKIQARMGVFAQADGSAYIEQGNTKALAVVYGPHEIRGSRARALPDRAVNCQ  
YSSATFSTGERKRRPHGDRKSCMGLQLRQTFEAAILTQLHPRSQIDIYVQVLQADGGTYAACVNAATLAVLDAG  
IPMRDFVCACSAGFVDGTALADLSHVEEAAGGPQLALALLPASGQIALLEMDARLHEDHLERVLEAAAQAARDVH  
TLLDRVVRQHVREASILGD

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**FIGURE 1013**

CCGCTTCCCCGTCTTGTACACCCCTAACTCCTGAGGCTCCTCCGAATCACGCGAGTGGAAGCGGAGAAGCTCAAG  
TGGCCGCC**ATG**TCAGAGGCTTATTTCCGAGTGGAGTCGGGTGCGCTGGGGCCTGAGGAGAACTTTCTTTCTTTGG  
ACGACATCCTGATGTCCACGAGAAGCTGCCGGTGCGCACGGAGACCGCCATGCCTCGCCTTGGCGCTTTCTTCC  
TGGAGCGGAGCGCAGGCGCCGAGACTGACAACGCGGTCCCACAGGGTTCCAAGCTTGAACCTACCCTTGTGGCTGG  
CAAAAGGACTTTTTGACAACAAGCGACGGATCCTTTCTGTGGAACCTCCCAAGATCTACCAAGAGGGTTGGAGGA  
CTGTGTTTCACTGCAGATCCCAATGTGGTGGACCTCCACAAAATGGGGCCCCATTTCTACGGGTTTGGCTCCCAGC  
TCCTGCATTTTGACAGTCCCGAGAATGCAGACATTTCCAGTCTCTGCTGCAGACTTTTATCGGACGTTTTTCGCC  
GCATCATGGACTCCTCACAGAATGCTTACAACGAAGACACTTCAGCCCTGGTAGCCAGGCTAGACGAGATGGAGA  
GGGGCTTATTTCAAACAGGGCAGAAAGGACTGAATGACTTTTCACTGTTGGGAGAAGGGGCAGGCTTCTCAGATCA  
CAGCTTCCAACCTCGTTTCAGAATTACAAGAAGAGAAAATTTCACTGATATGGAAGAC**TGA**AAGCCGGAAGAACACA  
GAATGGCTCCTCACAGACGTATCCCTCCGTGTGTCCTTGATAGGAGCTGGTTGACCTTGTACAGAACCAGAATCC  
TGTCCCATTTTCAATGGCTTATTTCCCTGTGGCCATAGAGAATTATAGGGAACCTGGACATGCTGGAGGATGTGGGTGT  
CCCTGGCTCTGTGAGTCTTCCAGGACCGTCCACCCCTGCTGACCCACAGCCCAGGCCCTTTAACCCAAGAACCCA  
TGGCCAAGGAGAAATCAAAGTCCTTCCCTAAATAAGAATCACTGCCATATAATATATCACAGTAGAGTTGCAACTG  
AGATTCCTTGTGTCTGGGAGTTTGGACAGCTTCAGATGTACAGTTTCACTAGCCACAAAGCACAGGTACAAACTG  
GGTCATCGCCTGTTACAAAATGCTCTCTTGATCTTATTTGCCTCATCTTCCTCATGGTTGTACAGAGGATAGCA  
CCCCACCATGCCAGCCTGACTTGGAGATATCTCCTGCTGCCTGCCTGCAGGGAGTTACCCAGTTTCCAAAACA  
GTCGCCCAGATAAAGGAGGAAAAGGGAAAGGCAGACGAATGGCATGGCTTTTACTAAAGAAAAGATGTTGGCCTC  
ATÀCTCTATACTCAGGGCTTAATGAACCTGGAATCTGCATAACTCAGCAGTCAACCCAGAAGGGAAATGGTTAAAC  
TGAGCTTGTTATTGCCTCGGAGAGCCTAAGAGCACCCGCACACTTAATTCTACTCCCTGTCTAGAAAAGCTGTCA  
GGGAGTCGTTTGAATTGCAATGTAGTTATTAAGGGCTGTAAACCAGCCTGCATTACATCTGGAAGTCAGGACTT  
GGGTGCTGACTATGAAGGGCCCTGTTTTCAAATCTAACATTGCAAGTGTAATGGGCAAGAAGCCTCCGTTGTG  
CTTTTTTTTTTCTCTTTCAGTAACTTTTGCAACATTATTGCATAGAAGATCCCTGACCATTTACTAGGAACCTGGT  
TAAGCAAGCACTAATCTCTTTTCCCTGGAGATCAAGGATGCAACCTCAGGTTGAGAAAGAAACAGGGTTCCCTGGG  
CCCATTAGACTGTTTGCAGGGCÀTCACTGCTTCCCCCTGACACCTCACAACTAGCAAAAATTGTCTTTGTCTTTG  
GAAATTATAGAGGGATTGGGTATCCAGATTGTGCAGATGCAAACTTAGGCTGTCTTGATGCAAACTTAGAACCA  
CAGAAATGCTTTTAAAATGCCTGTTTTAAGATGGAATTGTTGTTTTTATAATTTGATTTTGTGCTAAATAAATG  
ATTGGCTTTGTACATGAATATGTTCTGTACAAGTGCTCTTTCACTAGTACTACAGATAATCAAAGCTATCAGAAT  
TGTGTCTTTGATCATATTTGACGGTAATACACAAATAAATCCATGTTTTAGCAAAAAAAAAAAAAAAAAAAAAA  
A

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**FIGURE 1014**

MSEAYFRVESGALGPEENFLSLDDILMSHEKLPVRTETAMPRLGAFFLERSAGAETDNAVPOGSKLELPLWLAKG  
LFDNKRRILSVELPKIYQEGWRTVFSADPNVVDLHKMGPHFYGFSGQLLHFDSPENADISQSLQTFIGRFRRIM  
DSSQNAYNEDTSALVARLDEMERGLFQTGQKGLNDFQCWEKGQASQITASNLVQNYKKRKFTDMED

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**FIGURE 1015**

GGCACGAGGGCACC GCAGGAGCAACGGTTGGTCCTGCGGCTGTGATGTCGGTGTTGAGGCCCCCTGGACAAGCTGC  
CCGGCCTGAACACGGCCACCATCTTGCTGGTGGGCACGGAGGATGCTCTTCTGCAGCAGCTGGCGGACTCGATGC  
TCAAAGAGGACTGCGCCTCCGAGCTGAAGGTCCACTTGGCAAAGTCCCTCCCTTTGCCCTCCAGTGTGAATCGGC  
CCCGAATTGACCTGATCGTGTTTGTGGTTAATCTTCACAGCAAATACAGTCTCCAGAACACAGAGGAGTCCCTGC  
GCCATGTGGATGCCAGCTTCTTCTTGGGGAAGGTGTGTTTCTCGCCACAGGTGCTGGGCGGGAGAGCCACTGCA  
GCATTACCGGCACACCGTGGTGAAGCTGGCCACACCTATCAAAGCCCCCTGCTCTACTGTGACCTGGAGGTGG  
AAGGCTTTAGGGCCACCATGGCGCAGCGCCTGGTGC GCGTGCTGCAGATCTGTGCTGGCCACGTGCCCGGTGTCT  
CAGCTCTGAACCTGCTGTCCCTGCTGAGAAGCTCTGAGGGCCCCCTCCCTGGAGGACCTGTGAGGGTGGCTGGCCC  
CTGGGCTGCCCCCTTCTCATGGCTTCGTGCTGACTCCATAAACATTCTCTGTTGAGGATGTCCAGTCAGGGCTTGA  
CAGGCCCAGGCTCAGCCCCCGGTGGCTGGGAAGGTTCCCTGCAGTGCCAGTGCTGCAGCAGGGAGAGCTGGGCAG  
AAGCAGCGAGGGGGCCCCAGCTGGCGAGACTGTAGCCCCCTCCCACTCCCACACTCACTCTTGAGAGCCTGTGTC  
TTTAAGCAGCTGGCGTGTTACATCTCCATTTAAGGTTTCCTTTGAACAAAAGGTCTGTGGCTAAAAAAGTTTAA  
AAATCAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 1016**

MSVLRPLDKLPGLNTATILLVGTEALLQQLADSMKEDCASELKVHLAKSLPLPSSVNRPRIDLIVFVNLHSK  
YSLQNTTEESLRHVDASFFLGKVCFLATGAGRESHCSIHRHTVVKLAHTYQSPLLYCDLEVEGFRATMAQRLVRVL  
QICAGHVPGVSA LNLLSLLRSSEGPSLEDL

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**FIGURE 1017**

GGGAGTAGGAGGTGTGACCGGAGGGCGAAATTGGGGCTTCCTCTGCTCTGGTGACCCAGAACCGTCAACTGAAAT  
GACCTGTCTGTGTAGTACTCCGGCAGGATGGGCCTCGGAGCGTAAAGGCGGCACAAAACAAAAATATTAACAAAA  
AGGAGAGAGGGACAAAAAAGAAAACCCGAAAGTTTCAGCTGCATTGCTGCGGAACGTTTTTTAGCCAGAAGGC  
GAAAGAAGAAATCGGAAGTGACGTGCGCGGCCAAAACAAGCCCGGGCTTGGAGGCCTGTACTGAAGCTGGCCTCAG  
ATGGGAAGGCCCCGACTCGCTGTCTGCTGTCTGCTGCGTGGTTCGCGAGACCTTGCACTCTCACCAGGTCGGCCTCCAG  
CCCCGTGTGCCCGGGATCCGCTCGCCGCGGATGAGCGAGAGTTTCTTCCTGGGACTTTTCGGGCACAGCTGGCCGG  
TGGCGACAGAACGGACTTTCTTTCTGCAAGAGTCTCCCTCCAGCGGGAGACAGCGGGCTCCTGTCTCGGGACG  
CTGGGACACCTGTGCGCTATTTTTTAAATATCCAGATTCCAAGAACACACTGGATACTGCTCTTACAAAACCAAGA  
GGAAATCATGAAGAAATGTTTTAGTTATTGAAACTACAGTTGAAATCATGGATACATCAACAAATCTGGATATTG  
GAGCCCAGCTTATCGTGAAGAGTGTCCCAGCACTTATAGCCTAACTGGCATGCCAGACATTAAATAGAACATC  
CACTGGACCCAAATTCAGAAGAAGGGTCAGCTCAGGGTGTGCCATGGGAATGAAATTCATATTGCCTAACCGAT  
TTGATATGAATGTGTGTTCTCGATTTGTGAAGTCCTTAAATGAAGAAGATAGTAAAAATATTCAAGATCAGGTTA  
ACTCTGACCTGGAGGTGGCATCTGTCTCTATTTAAAGCTGAATGCAATATCCATACATCTCCTTCTCCGGGAATTC  
AAGTAAGGCATGTCTACACCCCTCTACAACAAAGCATTTCTCACCCATAAAACAGTCAACCACTTTAACCAACA  
AACACAGAGGAAATGAGGTCTCTACCACACCTCTGTTAGCAAAATCTTTGTCTGTTACCAGTTGGCTGCTCAGG  
GAGAGATGCTCTATCTGGCTACTCGTATCGAACAAGAAAATGTTATCAATCACACGGATGAAGAAGGATTTACTC  
CTCTGATGTGGGCTGCAGCACACGGGCAAATAGCTGTGGTAGAGTTCCTACTTCAGAATGGTGTGATCCCCAAC  
TTTTAGGAAAAGGTCGAGAAAGTGCAGTGTGCTGGCCTGTAGTAAAGGCTACACAGATATTGTCAAATGCTGC  
TTGATTGTGGAGTTGATGTAAATGAATATGATTGGAATGGAGGAACACCTCTGCTTTATGCTGTACATGGAAATC  
ATGTGAAATGTGTAAAGATGCTCTTAGAAAGTGGGGCTGATCCAACAATTGAAACTGACTCTGGATATAATTCTA  
TGGATCTAGCTGTAGCCCTAGGCTATAGAAGTGTTCACAGGTTATTGAGTCACATTTGTTGAAGCTGCTTCAA  
ATATCAAGGAGTAGACACAGTCATCAGAAAATGTCTGCCCTTTGTTTTACTTCTTGGTCCTTATAAATGATAGTT  
TTGTTTACTTATAAATTTTTACCTCAGTTGCAATATTTACTGGTTTTTAGTAGGTTTTAATAAATATTTCTCTGA  
GTAATTCAGTGGTTTATAATAAATGTAATACTCTTTTTATAACTATGTTTTACTGTATATTTAAATTTATAAAT  
AATGTTTTCTGTGGCATGTAAATTTTTATGGTACAGATAGTTATCATCAGTCTTTGTATCAAGTGCTGTAATTTGA  
CATTTTCAGAAATTATTCTACCCTAGTCATCTTCACTCGTGTATTAAGTCATTCATTTATATAGGGTTTGCTAT  
AAATCCCTAGAAAAAATTGTTCTTATTGTTGAATTAAAAAGTGCACAGTGTGATTGTTTACAAATGATATTAT  
AAATAAATAAAATACTTCTTCTG

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**FIGURE 1018**

MDTSTNLDIGAQLIVEECPSTYSLTGMPDIKIEHPLDPNSEEGSAQGVAMGMKFILPNRFDNMVCSRFBVKSLENEE  
DSKNIQDQVNSDLEVASVLFKAECNIHTSPSPGIQVRHVYTPSTTKHFSPIKQSTTLTNKHRGNEVSTTPLLANS  
LSVHQLAAQGEMLYLATRIEQENVINHTDEEGFTPLMWAAAHGQIAVVEFLLQNGADPQLLGKGRESALSLACSK  
GYTDIVKMLLDGVDVNEYDWNGGTPLLYAVHGNHVKCVKMMLLESGADPTIETDSGYNSMDLAVALGYRSVQQVI  
ESHLLKLLQNIKE

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**FIGURE 1019A**

ATCCTTGCCGCCCCGCCCCGCCCCAGCCGCTCCCGGAGCCGTCGGGC**ATG**GAGCCGTGGAAGCAGTGC GCGCAGT  
GGCTCATCCATTGCAAGGTGCTGCCCACCAACCACCGGTGACCTGGGACTCGGCTCAGGTGTTGACCTTGCGC  
AGACCCTCCGCGATGGAGTCTTGCTCTGCCAGCTGCTTAACAACCTCCGGGCGCACTCCATCAACCTGAAGGAGA  
TCAACCTGAGGCCGAGATGTCCAGTTTCTCTGTTTGAAGAACATAAGGACATTTCTCACGGCCTGTTGTGAGA  
CGTTTGGAATGAGGAAAAGTGAACTTTTCGAGGCATTTGACTTGTTTGATGTTTCGTGACTTTGGAAAGGTTATAG  
AAACATTATCACGACTTTCTCGAACACCTATAGCATTGGCCACAGGAATCAGGCCCTTCCCAACAGAAGAAAGCA  
TTAATGATGAAGACATCTACAAAGGCCTTCCTGATTTAATAGATGAAACCCTTGTTGGAAGATGAAGAAGATCTCT  
ATGACTGTGTTTATGGGGAAGATGAAGGTGGAGAAGTCTATGAGGACTTAATGAAGGCAGAGGAAGCACATCAGC  
CCAAATGTCCAGAAAATGATATACGAAGTTGTTGTCTAGCAGAAATTAAGCAGACAGAAGAAAAATATACAGAAA  
CTTTGGAGTCAATAGAAAAGTATTTTCATGGCACCCTAAAGATTCTGACAGCAGCAGAATTTGATTTCAGTAT  
TCATCAACATTTCCTGAACTTGTAACCTTCATCGGAACCTAATGCAAGAGATTTCATGATTCCATTGTAAATAAAA  
ATGACCAGAACTTGTAACCAAGTTTTTATTAACTACAAGGAAAGATTGGTTATTTACGGGCAGTACTGCAGTGGAG  
TGGAGTCAGCCATCTCTAGTTTAGACTACATTTCTAAGTCAAAAGAAGATGTCAAACCTGAAATTAGAGGAATGTT  
CCAAAGAGCAAATAATGGGAAATTTACTCTTCGAGACTTGCTTGTTGCTTCTATGCAACGTGTTTTAAAGTACC  
ACCTTCTCCTCCAGGAACCTGGTCAAACATACCCTGATCCGACTGAGAAGGCAAATCTGAAACTGGCTCTTGATG  
CCATGAAGGACTTGGCACAATATGTGAATGAAGTGAAGAGATAATGAGACCCTTCGTGAAATTAAACAGTTTC  
AGCTATCTATAGAGAATTTGAACCAACCAGTTTTGCTTTTTGGACGACCTCAGGGAGATGGTGAAATTCGAATAA  
CCACTCTAGACAAGCATACCAAACAAGAAAGGCATATCTTCTTATTTGATTGGCAGTGATCGTATGTAAGAGAA  
AAGGTGATAACTATGAAATGAAGGAAATAATAGATCTTCAGCAGTACAAGATAGCCAATAATCCTACAACCGATA  
AAGAAAACAAAAGTGGTCTTATGGCTTCTACCTCATCCATACCCAAGGACAAAATGGGTTAGAATTTTATTGCA  
AAACAAAAGATTTAAAGAAGAAATGGCTAGAACAGTTTGAAATGGCTTTGTCTAACATAAGACCAGACTATGCAG  
ACTCCAATTTCCACGACTTCAAGATGCATACCTTCACTCGAGTCACATCCTGCAAAGTCTGCCAGATGCTCCTGA  
GGGGAACATTTTATCAAGGCTATTTATGTTTTAAGTGTGGAGCGAGAGCACACAAAGAATGTTTGGGAAGAGTAG  
ACAATTGTGGCAGAGTTAATTCTGGTGAACAAGGGACACTCAAACCTACCAGAGAAACGGACCAATGGACTGCGAA  
GAACTCCTAAACAGGTGGATCCAGGTTTACCAAAGATGCAGGTCATTAGGAACTATTCTGGAACACCACCCCCAG  
CTCTGCATGAAGGACCCCTTTACAGCTCCAGGCCGGGGATACCGTTGAACTTCTGAAAGGAGATGCACACAGTC  
TGTTTTGGCAGGGCAGAAATTTAGCATCTGGAGAGGTTGGATTTTTTCCAAGTGATGCAGTCAAGCCTTGCCCAT  
GTGTGCCCAAACAGTAGATTATTCTTGCCAACCCTGGTATGCTGGAGCAATGGAAGATTGCAAGCAGAGACCG  
AACTTATTAATAGGGTAAATAGTACTTACCTTGTGAGGCACAGGACCAAAGAGTCAGGAGAATATGCAATTAGCA  
TTAAGTACAATAATGAAGCAAAGCACATCAAGATTTTAAACAAGAGATGGCTTTTTTCACATTGCAGAAAATAGAA  
AATTTAAAAGTTTAAATGGAACCTGTGGAGTACTACAAGCATCATTCTCTCAAGGAAGGGTTCAGAACCTTAGATA  
CAACTCTGCAGTTTCCATACAAGGAGCCAGAACATTAGCTGGACAGAGGGGTAATAGAGCAGGCAACAGCTTGT  
TAAGTCCAAAAGTGCTGGGCATTGCCATCGCTCGGTATGACTTCTGTGCAAGAGATATGAGAGAGTTGTCCTTGT  
TGAAAGGAGATGTGGTGAAGATTTACACAAAGATGAGTGCAAATGGCTGGTGGAGAGGAGAAGTAAATGGCAGGG  
TGGGCTGGTTTCCATCCACATATGTGGAAGAGGATGAAT**TA**AATTCAAATCCCGTGTGACCCCTGCACCAAAAAT  
TTCAGAGAAGGGATAAATAGAACCTGCACAGCATCGTGAATTAAGTGAAGTGTTTAAAAAGCTGCATTTCTGGC  
TGTTCAACATCCTCCCTCCTTAGCCCCCTCCTAAGTCTTAATGCTGAGATTTCTAAAGATGCTGGTACTGACAGAT  
TAATGGCTTGCTAGAGCTGTGCAAGAAACAGCCTGCCAGTCTGTCAATTGTCAGGGACCAGGGCAAACCAAGAG  
CTGTTCTTCCAGAAAGAGCCCTGCAAACACATTGGTTTCGTGCTTCCCTTTACTTCTTCTGGTCAGATACCATGAA  
TGCCAGTCATCAGTAAATCTTAATACACTTTTGCTTTATTCTCACATGCCATTACCAGATTATTTGATGGTACA  
AAGAAGCAGAAGTGTAATTTTCTTTTCCAGCATGACGAAAAATTGGAGTTCTGCCATTTGAGCAGCTTACTGG  
AAAGATCCAGCCTTACTTGTCTTAAATTTGTCCAACAAGGTGACTCATTGCCCCGCAAAACACTTTTACCCTCAGAT  
GTTACTCATGATATTATAAAATATGAGGCCAGTGCTCAGGTTTGCATCATAAGTGAGCTATCCCTGAAGGGTTTT  
AATTACTTATTTGGTGTCTTGATTATATTTGCAAACCTTCTTTATAAAAGGTGAAAAAAGCACACAAAAGAGAGGG  
TGTCTTCATATTAAACCTTACAACCTTCATGATTTTCATAGGATTATTTTGAAATATAGCACTTGACTTTATGA  
AAGGATCTGGGCTAGGTATATTAGGGGTAGTTGCCAATAACCTGAAGAAGCTGGCATTGTTTACAGAAACAGATC  
AAGGGCTATAATTTATGTCATTTTATAGCAGCAGTATCTATTAATACATGCCTTTTCTCCATCCACCTCCCC  
GCACACACACAAAGATGACCTGGGACATGATTTTTTTTATTCCACATTTTCTTGGAGCACAAACAACTTTGTGTA

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**FIGURE 1019B**

GGATTTTGAAGGAAAGCACAACTGGGTCCTTTATTCATTTCTGGGACAGAAAGAGGGTCAGTGGACTTTTGTGG  
 GCCTCCAGCTTCTCTCAGAGTCTCCCCCTCTGCAGCCCATCCTGGGAGTGTATTAAGTGGAGGGAAGATGGGTCT  
 TGCAGTACATTTGTTTTGCCAGCCATCACTCTTTTTTGTGAGGAGCCTAAATACATTCTTCCTGGGGTCCAGAG  
 TCCCCATTCAAGGCAGTCAAGTTAAGACACTAAGTGGCCCTTTCTGATGGAAATATTTCTCCATAGCAGAAG  
 TTGTGTTCTGACAAGACTGAGAGAGTTACATGTTGGGAAAAAAGAAGCATTAACTTAGTAGAACTGAACCAGG  
 AGCATTAAAGTTCTGAAATTTTGAATCATCTCTGAAATGAAGCAGGTGTAGCCTGCCCTCTCATCAATCCGTCTGG  
 GTGCCAGAACTCAAGGTTCAAGTGGACACATCCCCCTGTTAGAGACCCCTCATGGGCTAGGACTTTTCATCTAGGAT  
 AGATTCAAGACCTTTACCTCAGAATTATGTAACTGTGATTGTGTTTTAGAAAAATTATTATTTGCTAAAACCAT  
 TTAAGTCTTTGTATATGTGTAAATGATCACAAAAATGTATTTTATAAAATGTTCTGTACAATAAAGTTACACCTC  
 AAAGTGACTCTTGGAATGGATTCTTTCTGTAAAGTCTTATCTGCGACTCTGTCTCGGGAATGTTTTGTCTGTT  
 GCCGTACCCGAACTTTGTTATGGAGGGAGCAGCCTCACACAAGCAGAAACACTCCTGTGGATGGTATTGTAGCA  
 TGTATTGTTTTATTTTAGTCAATAGACCCTCTCCTTATAAATGGTGTTTAGTCTTCCTGTTGCATTTTCATGGGCCT  
 GGGGGTTTCCTAGCAGAGGATATTGGAGCCCCCTTTTTGTGACATTACCAATTACATCTTTGTCCACGTTTAATAC  
 TTTGTTTTGGAAAAATTAATGCTGCAGATTTGTGTAGAGTTCTAATACCAAAGACAGAAGTAAATGTTTTCCAT  
 ATACTTTGTCTTGCTGTATGCAGCCCTTGIGTAATATGGTGAATTAGAGTGGTATTTCACTTTGTATTATTTTG  
 TAAATATGTCAATATAATAAATAGTGACTAAAAA

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**FIGURE 1020**

MEPWKQCAQWLIHCKVLPTNHRVTWDSAQVFDLAQTLRDGVLLCQLLNNLRAHSINLKEINLRPQMSQFLCLKNI  
RTFLTACCETFGMRKSELF EAFDLFDVRDFGKVIETLSRLSRTPIALATGIRPFPTEESINDEDIYKGLPDLIDE  
TLVEDEEDLYDCVYGEDEGEVYEDLMKAEEAHQPKCPENDIRSCCLAEIKQTEEKYTETLESIEKYFMAPLKR  
LTAAEFDSVFINIPELVKLHRNLMQEIHDSIVNKNDONLYQVFINYKERLVIYGQYCSGVESAISSLDYISKSKE  
DVKLKLEEC SKRANNGKFTLRDLLVPMQVRVLKYHLLQELVKHTTDPTEKANLKLALDAMKDLAQYVNEVKRDN  
ETLREIKQFQLSIENLNQPVLLFGRPQGDGEIRITTLDKHTKQERHIFLFDLAVIVCKRKGDNYEMKEIIDLQQY  
KIANNPTTDKENKKWSYGFYLIHTQGQNGLEFYCKTKDLKKKWLEQFEMALSNIRPDYADSNFHD FKMHTFTRVT  
SCKVCQMLLRGTFYQGYLCFKCGARAHKECLGRVDNCGRVNSGEQGTLKLPEKRTNGLRRTPKQVDPGLPKMQVI  
RNYSGTPPPALHEGPPLQLQAGDTVELLKGDHSLFWQGRNLASGEVGFFPSDAVKPCPCVPKPVYDSCQPYAG  
AMERLQAE TELINRVNSTYLVRHRTKESGEY AISIKYNNEAKHIKILTRDGFFHIAENRKF KSLMELVEYYKHHS  
LKEGFRTLDTTLQFPYKEPEHSAGQGRGNRAGNSLLSPKVLGIAIARYDFCARDMRELSLLKGDVVKIYTKMSANG  
WWRGEVN GRVGF PSTYVEEDE

**FIGURE 1021**

**FIGURE 1021**

[illegible]

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**FIGURE 1022**

MKTS DIKELNIVLPEFEKTHLEHQQRIESKVCKAAIATFYVNVKEQFIKMLKESQMLTNLKRKNAKMISDIEKKR  
QRMIEVQDELLRLEPQLKQLQTKYDELKERKSSLRNAAYFLSNLKQLYQDYSDVQAQEPNVKETYDSSSLPALLF  
KARTLLGAESHLRNINHQLEKLLDQG



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**FIGURE 1023**

**ATG**TGGGGGCGCACGGCGGGCGGCGCTGCCCGCGGAACTGCGGCGGGCCGGGAGGCGCTGTTGGTGCTCCTG  
GCGCTACTGGCGTTGGCCGGGCTGGGCTCGGTGCTGCGGGCGCAGCGTGGGGCCGGGGCCGGGGCTGCCGAGCCG  
GGACCCCGCGCACCCCGCGCCCCGGGCGGCGCAGCCGGTCATGCCGCGGCCCGGGTGCCGGCGAACGCGCTG  
GGCGCGGGGGCGAGGCGGTGCGGCTGCAGCTGCAGGGCGAGGAGCTGCGGCTGCAGGAGGAGAGCGTGCGGCTG  
CACCAGATTAAACATCTACCTCAGCGACCGCATCTCACTGCACCGCCGCGCTGCCCGTGCGCTGGAACCCGCTGTGC  
AAAGAGAAGAAATATGATTATGATAATTTGCCAGGACATCTGTTATCATAGCATTTTATAATGAAGCCTGGTCA  
ACTCTCCTTCGGACAGTTTACAGTGTCTTGAGACATCCCCGATATCCTGCTAGAAGAAGTGATCCTTGTAGAT  
GACTACAGTGATAGAGAGCACCTGAAGGAGCGCTTGGCCAATGAGCTTTCGGGACTGCCCAAGGTGCGCCTGATC  
CGCGCCAACAAGAGAGAGGGCCTGGTGCGAGCCCGCTGCTGGGGGCGTCTGCGGCGAGGGGCGATGTTCTGACC  
TTCCTGGACTGTCACTGTGAGTGCCACGAAGGTGGCTGGAGCCGCTGCTGCAGAGGATCCATGAAGAGGAGTCG  
GCAGTGGTGTGCCCCGGTGATTGATGTGATCGACTGGAACACCTTCGAATACCTGGGGAACTCCGGGGAGCCCCAG  
ATCGGCGGTTTTCGACTGGAGGCTGGTGTTACGTGGCACACAGTTCTTGAGAGGGAGAGGATACGGATGCAATCC  
CCCGTCGATGTGATCAGGTCTCCAACAATGGCTGGTGGGCTGTTTGTCTGTGAGTAAGAAATATTTTGAATATCTG  
GGGTCTTATGATACAGGAATGGAAGTTTGGGGAGGAGAAAACCTCGAATTTTCCCTTTAGGATCTGGCAGTGTGGT  
GGGGTTCTGGAAACACACCCATGTTCCCATGTTGGCCATGTTTTCCCAAGCAAGCTCCCTACTCCCGCAACAAG  
GCTCTGGCCAACAGTGTTTCGTGCAGCTGAAGTATGGATGGATGAATTTAAAGAGCTCTACTACCATCGCAACCCC  
CGTGCCCGCTTGGAACCTTTTGGGGATGTGACAGAGAGGAAGCAGCTCCGGGACAAGCTCCAGTGTAAGACTTC  
AAGTGGTTCTTGGAGACTGTGTATCCAGAACTGCATGTGCCTGAGGACAGGCCTGGCTTCTTCGGGATGCTCCAG  
AACAAAGGACTAACAGACTACTGCTTTGACTATAACCCTCCCGATGAAAACCAGATTGTGGGACACCAGGTCATT  
CTGTACCTCTGTCATGGGATGGGCCAGAATCAGTTTTTCGAGTACACGTCCCAGAAAGAAATACGCTATAACACC  
CACCAGCCTGAGGGCTGCATTGCTGTGGAAGCAGGAATGGATACCCTTATCATGCATCTCTGCGAAGAAACTGCC  
CCAGAGAATCAGAAGTTCATCTTGAGGAGGATGGATCTTTATTTACGAACAGTCCAAGAAATGTGTCCAGGCT  
GCGAGGAAGGAGTCGAGTGACAGTTTCGTTCCACTCTTACGAGACTGCACCAACTCGGATCATCAGAAATGGTTC  
TTCAAAGAGCGCATGTTAT**TGA**

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**FIGURE 1024**

MWGRTARRRCPRELRRGREALLVLLALLALAGLSVLRAQRGAGAGAAEPGPPRTPRPGRREPVMPPVPANAL  
GARGEAVRLQLQGEELRLQEESVRLHQINIYLSDRISLHRRLPVRWNPLCKEKKYDYNLPRTSVIIAFYNEAWS  
TLLRTVYSVLETSPDILLEEVILVDDYSDREHLKERLANELSGLPKVRLIRANKREGLVRARLLGASAARGDVL  
FLDCHCECHGWLEPLLQRIHEEESAVVCPVIDVIDWNTFEYLGNSGEPQIGGFDWRLVFTWHTVPERERIRMQS  
PVDVIRSPTMAGGLFAVSKKYFEYLGSYDTGMEVWGGENLEFSFRIWQCGGVLETHPCSHVGHVFPKQAPYSRNK  
ALANSVRAAEVWMDEFKELYHRNPRARLEPFGDVTERKQLRDKLQCKDFKWFLETVPPELVHPEDRPGFFGMLQ  
NKGLTDYCFDYNPPDENQIVGHQVILYLCHGMGQNOFFEYTSQKEIRYNTHQPEGCI AVEAGMDTLIMHLCEETA  
PENQKFILQEDGSLFHEQSKKCVQAARKESDSFVPLLRDCTNSDHQKWFFKERML

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**FIGURE 1025**

AATTATATATTTTTACTCTATGTTTCTCTACATGTTTTTTCTTTCCGTTGCTGGCGGAAGAGGCACGTGCGCTG  
CTGAAATGGAGCTGGTCGCTGGTTGCTACGAGCAGGTCCTCTTTGGGTTGCTGTACACCCGGAGCCCAAGGCTTG  
CGGCGACCACGAGCAATGGACTCTTGTGGCTGACTTCACTCACCATGCTCACACTGCCTCCTTGTGAGCAGTAGC  
TGTAATAGTCGTTTTGTGGTCACTGGGAGCAAAGATGAAACAATTCACATTTATGACATGAAAAAGAAGATTGA  
GCATGGGGCTCTAGTGCATCACAGTGGTACAATAACTTGCCTGAAATTCTATGGCAACAGGCATTTAATCAGTGG  
AGCGGAAGATGGACTCATCTGTATCTGGGATGCAAAGAAATGGGAATGCCTGAAGTCAATTAAAGCTCACAAAGG  
ACAGGTGACCTTCCTTTCTATTACCCATCTGGCAAGTTGGCCCTGTCGGTTGGTACAGATAAACTTTAAGAAC  
GTGGAATCTTGTAGAAGGAAGATCAGCATTATAAAAAATATAAAACAAAATGCTCACATAGTAGAATGGTCCCC  
AAGAGGAGAGCAGTATGTAGTTATCATACAGAATAAAATAGACATCTATCAGCTTGACACTGCATCCATTAGTGG  
CACCATCACAAATGAAAAGAGAATTTCTCTGTAAATTTCTTTCAGAGTCTGTCCTTGACAGTGGCTGGAGATGA  
AGAAGTTATAAGGTTTTTTGACTGTGATTCACTAGTGTGCCTCTGCGAATTTAAAGCTCATGAAAACAGGGTAA  
GGACATGTTTCAAGTTTTGAAATTCAGAGCATCATGTTATTGTTTCAGCATCGAGTGATGGTTTCATCAAAATGTG  
GAAGCTTAAGCAGGATAAGAAAGTTCCCCATCTTTACTCTGTGAAATAAACACTAATGCCAGGCTGACGTGTCT  
TGGAGTGTGGCTAGACAAAGTGGCAGACATGAAAGCCTTCCTCCAGCTGCAGAGCCTTCTCCTGTAAGTAAAGA  
ACAGTCCAAAATTTGGCAAAAGGAGCCTGGTGACACAGTGCACAAAGAAGAAAAGCGGTCAAAACCTAACACAAA  
GAAACGCGGTTTAACAGGTGACAGTAAGAAAGCAACAAAAGAAAGTGGCCTGATATCAACCAAGAAGAGGAAAAT  
GGTAGAAATGTTGAAAAGAAGAGGAAAAAGAAGAAAATAAAAAACAATGCAGTGAATCACAGATGTCTCCTGAAA  
GAACTCTTTTAGATGAAATCATTCTACTCAAATGTACCTTAATTTTTTTTTTCCCTGAGTAAAAGCAAGAAATT  
TCTTCCTTTGGAAAAAATATATATATATAAAAAACCACCTTTTAGATGGTTTTTTTTTAAAAAATAAATAAATAA  
TAAAATTACTTTTGGCAGACAGTGTATGAATTATGTATCATGTTGATATATAATATGTTAATGTGTCATGTA  
ATTTTTACTTTGTACAAAGCAAATAAAGATCTTTCTCAAAAAAAAAAAAAAAAAA

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**FIGURE 1026**

MELVAGCYEQVLFGFAVHPEPKACGDHEQWTLVADFTHHAHTASLSAVAVNSRFVVTGSKDETIHIYDMKKKIEH  
GALVHHSGTITCLKFYGNRHLISGAEDGLICIWDAKKWECLKSIKAHKGQVTFLSIHPSGKLALSVGTDKTLRTW  
NLVEGRSAFIKNIKQNAHIVEWSPRGEQYVVIIQNKIDIYQLDTASISGTITNEKRISSVKFLSESVLAVAGDEE  
VIRFFDCDSLVCLEFKAHENRVKDMFSFEIPEHHVIVSASSDGF IKMWKLKQDKKVPPSLLCEINTNARLTCLG  
VWLDKVADMKSLPPAAEPSVVSKEQSKIGKKEPGDTVHKEEKRSKPNTKKRGLTGDSKKATKESGLISTKKRKMV  
EMLEKKRKKKKIKTMQ

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**FIGURE 1027**

AAACCCAAAGCGGCCGCCGTAGGCGAAGGTGAAGATGGCTGCCTCTGCCTTTGCTGGTGCAGTGAGAGCAGCTTC  
AGGAATCCTACGGCCCCCTGAATATTTTGGCATCTTCAACCTACCGCAACTGTGTCAAGAATGCCTCTCTTATTTT  
TGCATTGTCCACTGGACGTTTTAGTCATATTAGACACCAGTTGTTTTCTCCACTCCCAGACTTACCACATCTGA  
GAGAAACCTGACATGTGGGCATACCTCAGTGATCCTTAATAGAATGGCCCCCGTGCTTCCAAGTGTCTGAAGCT  
GCCAGTCAGATCTCTAACATACTTCAGTGCAAGAAAAGGCAAGAGAAAGACCGTGAAAGCTGTCATCGATAGGTT  
TCTTCGACTTCATTGTGGCCTTTGGGTGAGGAGAAAGGCTGGCTATAAGAAAAAATTATGGAAAAAGACACCTGC  
AAGGAAGAAGCGATTGAGGGAATTTGTATTCTGCAATAAAACCCAGAGTAACTCTTAGATAAAATGACGACGTC  
CTTCTGGAAGAGGCGAAACTGGTACGTTGATGATCCTTATCAGAAGTATCATGATCGAACAAACCTGAAAGTATA  
GATCAGAAGTTTTCACTTGTCTCAGTTATTGGATATGTATCTTTGTGTACATATCTTTGCAAAAATGGATAAGT  
ACAAAACCTTGATGTAAATTGTACCAATGAATACGTAAACATACAGTGACAACATTAACTTAGAAAAAGTTTTAA  
ACTTAATGGATCAGACTTTGCCAGATTTGGTTAGGGAAACAGAAATTTAGAATGGTGCATTATTTTTTAACAAATG  
GTATTGGCTTAACTAGTTGTTTTAGTTATGCTCTTTTAGTTGCAAGGAATCTCAAGTGGGACAAACATAAAAAAG  
CTCAAAAGCTACAAGTTAGCTCAAGCAATGTGACATTATTTCAAGGATATGTGCCAGGGAATTCAGGAACCACCT  
CACCAACCCCATCTCCCACTCAGAAATCACCTCCCAGCCTCAGGAAGAGTAGAAATTTGGGTGGTGTCTCTCAGCA  
GGGGAAGGTGGATGTTTAGGCTTGGGCTCTGCATGCATGTGACTTGCTTCTTTTTGCAATTGTTAACTCCATTCTC  
TCTATTCACCAACTTCTCTACACAGCTTTTGATACCTTACAGTTTTCTGTTTCTTTGTAATAACTTTAACTTGCAC  
CTTTGAGGTTCTTTTCTACATGATGACCTTCAGCTCCTGCTGCTAGTCTCCAATTGCCAAGGGAATTTAACTGGG  
CCAGACTACCTTTTTTATACTAGGTCTGGTTGGGTGCTTGTCTAGAGTAGGGATTGGCTGTCTTAAAGTCAGGAGC  
CCGCTTTGTATTAGCAGGTTTGCATGCAGCAAAAAACAGTTATGTGAGCAGTTTCACTTGGAGGTTTACATGGG  
GTGGCAGCACACTTAACATCTAACACACCAGGTTTATTGTGTTTATAACACTTGTCACTTACTGTAACAACATTT  
TTTCATAGGAGAGTAAATAGCCCTTCAGCATGCTCATTATGAAACAGAAGAGGCTGTACAAGTGAAGACAAGGG  
CTTTTTATGCAAGTTTTGAAAGATAGGTATTTATTTTTTCTAGAGACAGGAGTTTTGCTCTGTTGCCAGGCTGG  
AGTGCAGTGGTGCAATCATAGCTCATTGAAGCCTCGCACTCCTGGGCTCAAGTGGTCTCTGCTCAGCTTACT  
GAGTAAGGATATGTATTTCTTAAAAGTTAGTTTATCCACTTCAGATTTTATGTTTTTCACTTGTAAAGGATAAACTT  
TTCCACAAATTTTCAACAATCATTGTAGAACTAAGGGGGAGAAAGTAATCTCAGTTGTTTTAGAAACGAAAA  
GTTAAGCATTGTTTACTTGAAGTGGGCAGGGAAGCAGCACTGAGTAAAGTTCAATTGAGTGGTTACAGTCTAGGG  
CAGTGGTTCCCAACTCTCCGATCAGAATCATCTGGGAAGCATTTTCAAACAGCAAAAGTACTTTGAAAACCATTA  
TAAATAGAATTATGCATGAATTACTGTTTCAGATCCTTTAATGTGGTAGTTGGTAATAATAAGATGAAATTCCTC  
TGTTGTTAGTAAATATGAAATTGAAGTTCTGCAGCATGTGAGGCCAGGATTATTAGGGAGATTCTCGAAACT  
AGTGTGTGTTTATTAAGAGGAGAAAGGATAACAATAGAATGTTCTAAAACAGAAAGTCCAAGTGCCTGTCTACTT  
ATGGGACCAATAAATAAAGAACAGACATTTGATTTGAGGTGAGGTAAAGCCTGAAACATGGAATGGCATTCTGT  
TTTGATGGATTTTCACTTCTCGCACTTCTGAGACGGCAAAGCCAACCCTTAGAAGCCTTCCACATCTTTGTCA  
CCTGCCTGGCTCCTGCTCTCTGATGTACCTCTGGGTAGTGAGATGGAAATGGTGCCTGCAGAAAGTTGGGGAGAAG  
GATACTTTTGCACAGCCTCCATGATGTCTTTATTGCAAAATATGGATGACAAGGGTCTCTGTTACAGGGGCCTCAG  
AGCACCTTCGTTTCTCCTCTAGACCAGGGACAGGTGTAGAGATAAGGACTGGCAACCAGAGCCTCAGCATCCAAA  
GATGGACTGAAGTGGGATGGCTGACAGGCACATAACTTACGGGAAAGGGAATTTATACATACGATTTTTGTTTT  
GTGGGTAGGAGGGCTTATCATCAACACTGATTTTATAATCTGACAATAAATGTCTTTCATTAAAGAGTTTACCTA  
AATGAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1028**

MAASAFAGAVRAASGILRPLNILASSTYRNCVKNASLISALSTGRFSHIQTPVVSSTPRLTTSE  
RNLTCGHTSVI  
LNRMAPVLPSVLKLPVRSITYFSARKGKRKTVKAVIDRFLRLHCGLWVRRKAGYKKKLWKKTP  
ARKKRLREFVFC  
NKTQSKLLDKMTTSFWKRRNWYVDDPYQKYHDRTNLKV

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**FIGURE 1029**

GGCGCCGGGGACACGTTGGCTGCGTTTTTCGGCGGGCCTCCCGGGTACAAAAATGGCTGTGGCTAGCGATTTCTA  
CCTGCGCTACTACGTAGGGCACAAGGGCAAGTTTGGGCACGAGTTTCTGGAGTTCGAATTTTCGGCCGGACGAAA  
GCTTAGATATGCCAACACAGCAATTACAAAAATGATGTGATGATCAGAAAAGAGGCTTATGTGCACAAGAGTGT  
AATGGAAGAACTGAAGAGAATTATTGATGACAGTGAAATTACAAAAGAAGATGATGCTTTGTGGCCTCCCCCTGA  
TAGGGTTGGCCGACAGGAGCTTGAAATTGTAATTGGAGATGAGCACATATCTTTTACCACATCAAAAATAGGTTT  
TCTTATTGATGTAAATCAGTCAAAGGATCCTGAAGGCCTTCGAGTATTTTACTATTTGGTACAAGACTTGAAATG  
TTTAGTTTTTCACTCTTATTGGATTACACTTCAAGATTAAACCAATTTAAATTGTATGTTTTTCAAGCTGTTTGTAT  
ATTTAATTAAGGGATGGGAGGGGTTATTTGTCAATTTACAGTATTGGGGTTTTTATGAATGTGAAGCAAACAAAA  
AAATTTGTATGTAACTGAAAATAAGAAAATACATTAGCAAGCTTAATGGTTATCCTTACTTGAGTCCACATGGG  
TTGGACAGTCCCCACACACATTAAATTTCTGTAAATGAAAGCCACCTTTTGTAAAAATTTGCTCTAATAAAACAT  
ACCAATCCTGGTTGCAGAGTAGTTTTTTTTGTTTTTCCAGGAGGCTATGTCTCTAATTCACCTTTAGAGATAATAA  
GAAATTGTTCTGGTAGATACATCCTGTGACAGAAGATACTTTAGGTGGAATATGTAGCCAGATTCCCATCCATG  
AAAGGCAAGTGTAGATTGTCCCTTATTTCCCTTCATACATGATTGGATTTAATTTTGGGGGGCTTATACAAGGTCT  
AGTTTTTTTTTACAGTTATGACAAACCCCTCAGGGATTATTCACATTTAAATATTTTCACTTACAAGCAGTGAGG  
TCCTAAAGTGTTACAAGAGTACAGTCTACCCCATGTTAGGCATATCTTTGATTATGTCTTTATTCCCTTATTTTAC  
AATGTATTTGGTGTGTAGGGGAGGGGGGAGAATAAATGAGTTTTTCACTTTATAAATTGTTAAACATTTAGACA  
AACATATATGTATGTATGAATGTACATAAATATTTTAACTCCTATTGACCACGAGTCTCACTTCAGTTTCCAG  
TTCTTTTCAACCTCTTTCTGATAGATTTCTCTTTTCACTTTTATGTAACCATGTTCTTTGTTTCTTTTATTC  
TTCCATCTGAAGCCCCACTCTTAAAAAGTTGCACTGTTCCAGTAGTTATAATCCACTTGCCCTAGGAACAAGTTA  
GCACTGAATTTTGGGTGGAATAATTAGTTTCTGAAGGCTTGCCAGGACCCCTGAGCAGGTAGGCTCTAGAGTCGG  
GCAGTCCAATAACTTTTTTGCAATAATGGAAACGTCTTATGTGCAGTCCAATAGGGTAGCAACTGGCCAAATGAG  
GCCTACTGATTACTTGAGGTGTGCCTTGTATAACTGAATTTATGGTGCTATTTAAACAATTTTTTTCTAACGTGA  
AAAGGATAAAACATAAAAAACTCTTGAGAACTATAAAGTGAACACCTATATGCCTACCCCTACCTAGATTCTATA  
CTTAACATCTTTTTTACTGTAATATCTCTATTATAATAAATCTTGGTTTTTCACTTAACTGGTGTAATTGGTGCC  
AATAAACTACTTTTTTTGTAGTGCTATTTAATTTTGATTAAATTTAGATAGCCACGTGTCTAGCGGCTACCGTTT  
GGACAGTATAGCTCTAGAGCATGGCTTGGTAACCTGTTTGCCATGGAGCACTAGATGGTCCTTTTCACTCCTCAA  
AATGCAAGCCATTGCCTTCAGGTTTGCCATGGAAAGTCAAATGATTTCCACTTCATTATGCAAGTACGCTATCA  
TCTTCAGGTCTTTTGTATGTAAAATGTTTCTGTTCCAGTTGTAGACCTTGATGATTGTGCAGTATGAAATCGTAT  
TGTAATTTTCTTGCAATTTAGATGTCAACCTCAGAAACAGGAACAATCGTCTTTTGAACCTCAGTAGGCCCCACAG  
TTGTTGGTTGTTTCTCAAACAGGTTGTGGCTCCTGTTGAATAAGATGATCCATTAAAAACTGAACAAGGTTGAG  
GAGAAATAGTGCTTACGTTGAAAAATCTTTAAGTCTTTGTCCCGTTCTCTAACTTCCTTACGTTTTCGTTTATT  
TAGCTCCATCCCCACTATCTACTAGAATTTCTCATATTTAAACCAAGATGGGAGACTAGGTCAATTAGGAAAATAT  
TACCGTCTACAATTTTCTTATACTTTGATCTGTCTTTATTTGATTGTAAGTTGCTGATGGACAGTGATCATTAG  
AAACTGAATTTTGTATAATACTAGTTTTATATGAAACTAGATATTTATTGCGCTCAGGTTATGTTTCTTTTACCT  
CCTTCTTAATAAAGAGACCACTTGAAAT

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**FIGURE 1030**

MAVASDFYLRYYVGHKGKFGHEFLEFEFRPDGKLRVYANNSSNYKNDVMIRKEAYVHKSVMEELKRIIDDSEITKED  
DALWPPPDRVGRQELEIVIGDEHISFTTSKIGSLIDVNQSKDPEGLRVFYLVQDLKCLVFSLIGLHFKIKPI



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**FIGURE 1031**

GTTGCCGCTGCGCACCTGGCTCAGGTGAGCTGCCCCGCCCCGCCCCGGCGCGAGCCCCAGGTCTGGCAGCAGCC  
 CCTGACCTGTCCAGGTGCCCTGTCCAGCTGACTGCAAGGACAGAGAGGAGTCCTGCCAGCTCTTGGATCAGTCT  
 GCTGGCCGAGGAGCCCGGTGGAGCCAGGGGTGACCCTGGAGCCAGCCTGCCCGAGGAGGCCCGGCTCAGAGC  
 C**ATG**CCAGGTGTCTGTGATAGGGCCCTGACTTCCTCTCCCCGTCTGAAGACCAGGTGCTGAGGCCTGCCTTGGG  
 CAGCTCAGTGGCTCTGAAGTGCACGGCTTGGGTAGTCTCTGGGCCCCACTGCTCCCTGCCTTCAGTCCAGTGGCT  
 GAAAGACGGGCTTCCATTGGGAATTGGGGGCCACTACAGCCTCCACGAGTACTCCTGGGTCAAGGCCAACCTGTC  
 AGAGGTGCTTGTGTCCAGTGTCTGGGGGTCAACGTGACCAGCACTGAAGTCTATGGGGCCTTCACCTGCTCCAT  
 CCAGAACATCAGCTTCTCCTCCTTCACTCTTCAGAGAGCTGGCCCTACAAGCCACGTGGCTGCGGTGCTGGCCTC  
 CCTCCTGGTCTGCTGGCCCTGCTGCTGGCCGCCCTGCTCTATGTCAAGTGCCGTCTCAACGTGCTGCTCTGGTA  
 CCAGGACGCGTATGGGGAGGTGGAGATAAACGACGGGAAGCTCTACGACGCCTACGTCTCCTACAGCGACTGCCC  
 CGAGGACCGCAAGTTCGTGAACCTTCATCCTAAAGCCGAGCTGGAGCGGCGTCGGGGCTACAAGCTCTTCCTGGA  
 CGACCGCGACCTCCTGCCGCGCGCTGAGCCCTCCGCCGACCTCTTGGTGAACCTGAGCCGCTGCCGACGCCTCAT  
 CGTGGTGCTTTCGGACGCCTTCTGAGCCGGGCCTGGTGAGCCACAGCTTCCGGGAGGGCCTGTGCCGGCTGCT  
 GGAGCTCACCCGCAGACCCATCTTCATCACCTTCGAGGGCCAGAGGCGCGACCCCGCGCACCCGGCGCTCCGCCT  
 GCTGCGCCAGCACCGCCACCTGGTGACCTTGCTGCTCTGGAGGCCCGGCTCCGTGACTCCTTCTCCGATTTTG  
 GAAAGAAGTGCAGCTGGCGCTGCCGCGGAAGGTGCGGTACAGGCCGGTGGAAGGAGACCCCCAGACGCAGCTGCA  
 GGACGACAAGGACCCCATGCTGATTCTTCGAGGCCGAGTCCCTGAGGGCCGGGCCCTGGACTCAGAGGTGGACCC  
 GGACCTGAGGGCGACCTGGGTGTCCGGGGGCCTGTTTTTGGAGAGCCATCAGCTCCACCGCACACCAAGTGGGGT  
 CTCGCTGGGAGAGAGCCGGAGCAGCGAAGTGGACGTCTCGGATCTCGGCTCGCGAACTACAGTGCCCGCACAGA  
 CTTCTACTGCCTGGTGTCCAAGGATGATATG**TAG**CTCCACCCAGAGTGCAGGATCATAGGGACAGCGGGGGCC  
 AGGGCAGCGGCGTCGCTCCTCTGCTCAACAGGACCACAACCCCTGCCAGCAGCCCTGGGACCCTGCCAGCAGCCC  
 TGGGAAAAGGCTGTGGCCTCAGGGCGCCTCCAGTGCCAGAAAATAAAGTCCTTTTGGATTCTGAAAAAAAAAA  
 AA

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**FIGURE 1032**

MPGVCDRAPDFLSPSEDQVLRPALGSSVALNCTAWVVS GPHCSLPSVQWLKDGLPLGIGGHYSLHEYSWVKANLS  
EVLVSSVLGVNVTSTEYGAFTCSIQNISFSSFTLQ RAGPTSHVAAVLASLLVLLALLAALLYVKCRLNVLLWY  
QDAYGEVEINDGKLYDAYVSYSDCPEDRK FVNFI LKPQLERRRGYKFLDDRDL LPRAEPSADLLVNLSRCRRLI  
VVLSDAFLSRAWCSHSFREGLCRLLELTRRPIF ITFEGQRRDPAHPALRLLRQHRHLV TLLLWRPGSVTPSSDFW  
KEVQLALPRKVRYRPVEGDPQTQLQDDKDPMLI LRGRVPEGRALDSEVDPDPEGDLGVRGPVFGEPSAPPHTSGV  
SLGESRSSEVDVSDLGSRNYSARTDFYCLVSKDDM

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**FIGURE 1033**

AGTCTTGCGGAGGTGACCAAAGCCACGTAATGTCCGTAGTTCGCTCATCCGTCCATGCCAGATGGATTGTGGGG  
AAGGTGATTGGGACAAAAATGCAAAAGACTGCTAAAGTGAGAGTGACCAGGCTTGTTCTGGATCCCTATTTATTA  
AAGTATTTTAATAAGCGGAAAACCTACTTTGCTCACGATGCCCTTCAGCAGTGCACAGTTGGGGATATTGTGCTT  
CTCAGAGCTTTACCTGTTCCACGAGCAAAGCATGTGAAACATGAACTGGCTGAGATCGTTTTCAAAGTTGGAAAA  
GTCATAGATCCAGTGACAGGAAAGCCCTGTGCTGGAACCTACCTACCTGGAGAGTCCGTTGAGTTCGGAAACCACC  
CAGCTAAGCAAAAATCTGGAAGAAGCTCAATATCTCTTCAGCACAGTGAAGCGGGAGTGGAAGAAGGATCTAAAGG  
GAAAACTGACATGTTTATGTTATGGAAAAAGAAATTTTTCTAAGTTTCATCACAACTGTGTCCAGTTTCTCTG  
TGGTGTTTATGAAATAGCTAAAAGCAAATGAAGTAAAGGGCATACTATGGTTTTTCACAAAAAAAAAAAAAAAAAA

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**FIGURE 1034**

MSVVRSSVHARWIVGKVIGTKMQKTAKVRVTRLVLDPYLLKYFNKRKTYFAHDALQQCTVGDIVLLRALPVPRAK  
HVKHELAEIVFKVGKVIDPVTGKPCAGTTYLESPLSSETTQLSKNLEELNISSAQ

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**FIGURE 1035**

GGCGCGCTTTCAAACGCTCAGGTTTCCTACCTTCCGGCTGCTTGGGAACTTCTTTCTTGCCCGCCAAGCCCGCAG  
CCACCCGGGCGCGGCGGGACTCCTAGACCCGGCGCTGCGATGAAGAGGACCCGCGACGAGGTGGATGCGACGCTG  
CAGATCGCCAAGCTGAATGCGGCCGAGCTGCTGCCGGCGGTGCACTGCCCTGGGCTTCGGCCCTGGGGCCAGCGGC  
GCTGCAGCCGGCGACTTCTGCCTGCTGGAGCTGGAGCCCACGCTGTGCCAGCAGCTGGAGGATGGACACAGTCTT  
GTGATTCGTGGTGATAAAGACGAGCAAGCTGTGCTGTGCAGTAAAGACAAAACATACGACTTGAAGATAGCAGAC  
ACTTCCAATATGTTGCTTTTTCATTCTGTTGTAAAACCTCCGGACCAGTTGAAGAAGGAAGATTCACACTGTAAC  
ATTATTCACACTGAGATCTTTGGTTTTTCTAATAATTATTGGGAATTAAGAAGACGTAGACCCAAGTTAAAGAAG  
CTAAAGAACTTTTGATGGAAAATCCATATGAAGGACCTGACAGTCAAAAAGAGAAGGATTCAAATAGCTCAAAA  
TATACAACCTGAAGATTGCTTGATCAAATTCAGGCAAGTGAGGAAGAAATAATGACCCAATTACAAGTTCTAAAT  
GCCTGTAAGATTGGAGGTTATTGGAGGATTCTTGAATTTGATTATGAGATGAACTTCTGAATCATGTAACCTCAG  
CTTGTTGGATTCTGAATCATGGTCTTTTGGTAAAGTTTCTTTGAACACATGCCTTCAGGAACCTCGGACCATTGGAG  
CCAGAGGAAAATGATAGAACACTGTCTTAAATGTTATGGGAAGAAAATATGTAGATGAAGGCGAAGTTTATTTTGGAG  
TTGGATGCTGATAAAATATGTAGAGCAGCAGCACGAATGCTACTTCAGAATGCGGTGAAATTCATCTCGCTGAG  
TTTCAAGAAGTGTTGGCAGCAGAGTGTTCTGAAGGAATGGTAACTAGTCTTGATCAGCTTAAGGGTTTTAGCGCTG  
GTGGATAGACACTCGAGACCAGAAATCATATTTTTGCTGAAAGTAGATGATTTACCTGAGGATAATCAGGAACGT  
TTTAATAGCCTTTTCTCTCTAAGGGAGAAGTGGACAGAAGAAGATATTGCTCCATATATTCAAGATTTGTGTGGA  
GAGAAGCAAACCATAGGTGCATTACTACTAAATATTCTCGTTCTTCGATGCAAAATGGTGTTAAAGTTTATAAT  
TCGAGAAGACCCATTTCTTAAAGAACAACAGTCTTTTCTTCAGGACTCAAGTTGCTTTATAAAGTTGCTGGATA  
CAAGAAAAATAACTTGTACTTTTTATTCTGACTTTTAGAAACCTAGTCTTCTAAGGCATTTTTCTCCTCATCTTA  
AGCATTTTGAACCTACTGTTATTTCTTAAATGTTATAGGATGTAGCTTTAAATTTATATTTGTACTATGTACACA  
GTGTAAACAAGGACAAAAGAATTCTTTCTATATTATGTCTGAGGTCTCTATGATTTATTTAAAGTTTGGCTTTT  
TATATTTAAAATGTCATTTCTTTACTTAGGATTTGATGTTCTAATCATTAACTAAGTTTTCCAGAGAACT  
AAATAGTAATAGTTTCATAGAAGAGAACTATTTATTCACTTAAATATCATTCTCAAGTGAGTGAGTTCCCTCT  
ACTTTTAGCCTTCCACCCAACTGGAAGCCTCTAGGTGCTATCAATTATTTATATCCATCGTTTACATCCATGAA  
ATTGGCTGAATAATTACTCCTCTGCCTGGCGTAGACATGTGCTTTGGGAAAAAACGAGTTTATAATCCTATAAT  
GAAGAATACTGGCACAGGCAATGCTCACTCGAAAACCTCAAGTAATTTCTAGTTGGTTTTGGAATGCTTGATAAA  
GTTCCTTTACAGCTTTATTTTCTGATTTGTTTTGGTTTAGATCAAAGTTCAAATTAATTTTAACTTAGCTAATG  
AACTCATCACCAGGACAGTTGGAGGGGGTAGGCCGAGGTTAAATGGTCCACGTTTCAAAAATGTTAATGGCTAAT  
CCATAATTAAAGAAGTTTTAACTGTTACTGAAGTTTACAAGTTTTATTGTGATGAACATGAAATACAAACACGAT  
GGCTTCGAAATGTCTTTCAATAAATGTTTCTGCATTTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1036**

MKRTRDEV DATLQIAKLNAEELLPAVHCLGFGPGASGAAAGDFCLLELEPTLCQQLEDGHSVLVIRGDKDEQAVLC  
SKDKTYDLKIADTSNMLLFIPGCKTPDQLKKEDSHCNIIHTEIFGFSNNYWELRRRRPKLKKLKKLLMENPYEGP  
DSQKEKDSNSSKYTTEDLLDQIQASEEEIMTQLQVLNACKIGGYWRILEFDYEMKLLNHVTQLVDSESWSGKVP  
LNTCLQELGPLEPEEMIEHCLKCYGKKYVDEGEVYFELDADKICRAAARMLLQNAVKFNLAEFQEVWQQSVPEGM  
VTSLDQLKGLALVDRHSRPEIIFLLKVDDL PEDNQERFNSLFSLEKWTEEDIAPYIQDLCGEKQTIGALLTKYS  
RSSMQNGVKVYNSRRPIS

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**FIGURE 1037**

GAGTTTTCAATTTGTGGTGAGATTCTCTCCCAGGCCACAAGACATTTCCCTGCTCGGAACCTTGTTTACTAATTTCC  
ACTGCTTTTAAGGCCCTGCACTGAAAATGCAAGCTCAGGCGCCGGTGGTCGTTGTGACCCAACCTGGAGTCGGTC  
CCGGTCCGGCCCCCAGAACTCCAACCTGGCAGACAGGCATGTGTGACTGTTTCAGCGACTGCGGAGTCTGTCTCT  
GTGGCACATTTTGTTCCTGTCCTTGGGTGTCAAGTTGCAGCTGATATGAATGAATGCTGTCTGTGTGGAACAA  
GCGTCGCAATGAGGACTCTCTACAGGACCCGATATGGCATCCCTGGATCTATTTGTGATGACTATATGGCAACTC  
TTTGCTGTCTCATTGTACTCTTTGCCAAATCAAGAGAGATATCAACAGAAGGAGAGCCATGCGTACTTTCTAAA  
AACTGATGGTGAAAAGCTCTTACCGAAGCAACAAAATTCAGCAGACACCTCTTCAGCTTGAGTTCTTCACCATCT  
TTTGCAACTGAAATATGATGGATATGCTTAAGTACAACCTGATGGCATGAAAAAATCAAATTTTGTATTATTAT  
AAATGAATGTTGTCCCTGAACTTAGCTAAATGGTGCAACTTAGTTTCTCCTTGCTTTCATATTATCGAATTTCT  
GGCTTATAAACTTTTTAAATTACATTTGAAATATAAACCAAATGAAATATTTTAACTGATAAAAAAAAAAAAAA  
AAATAAAAAA

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**FIGURE 1038**

MQAQAPVVVTQPGVGPGPAPQNSNWQTGMDCFSDCGVCLCGTFCFPCLGCQVAADMNECCLCGTSVAMRTLYR  
TRYGIPGSICDDYMATLCCPHCTLQIKRDINRRRAMRTF



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**FIGURE 1039**

GGAAGAAAACCTGAAAAAGACCCCAAAGAAGAAT**ATG**AAAATGGTAACTGGAGCCGTAGCGTCGGTGCTGGAAGA  
CGAGGCCACAGACACTTCTGATAGTGAAGGAAGCTGTGGATCGGAAAAGGACCACTTTTATTCTGATGATGACGC  
AATAGAAGCTGACAGTGAGGGTGATGCTGAGCCCTGTGACAAAGAAAATGAAAATGATGGAGAATCAAGTGTTGG  
GACTAATATGGGCTGGGCAGATGCTATGGCTAAAGTCCTCAACAAGAAAACCTCCTGAAAGTAAACCTACTATTCT  
GGTCAAAAATAAGAAGCTGGAAGGAAAAGAAAAGTAAAGCAAGAAAGACTAGAGAAAATAAAACAGCGTGA  
TAAGAGGCTGGAGTGGGAAATGATGTGCAGAGTAAAGCCAGATGTTGTCCAAGACAAAGAGACAGAGAGAAATCT  
TCAGAGAATTGCAACAAGGGGTGTGGTGCAATTATTTAATGCTGTTTCAAGAAACATCAAAAGAATGTTGATGAAA  
GGTTAAGGAAGCTGGAAGTTCTATGAGAAAGCGTGCTAAGTTGATATCAACTGTTTCCAAGAAAGATTTTCATCAG  
TGTTTTGAGAGGGATGGATGGAAGTACAAATGAGACTGCTTCAAGCAGGAAGAAACCAAAAGCCAAACAGACTGA  
AGTGAAATCAGAAGAAGGCCAGGTTGGACGATCCTACGTGATGATTTTCATGATGGGAGCATCTATGAAAGACTG  
GGACAAGGAAAGTGATGGGCCAGATGACAGCAGACCAGAATCTGCAAGTGACTCTGATACAT**TAA**AGCATCATAGG  
AAATACAATTGCAGTCGTTTTATTTTTCTAGAAAAATATGTCATCCTCTGATAGTTGGGGAATTATAAGGATAC  
CATTTGTAAGAAAGCCAAAAGACTTTTGCCAGATTTTCATATTTCCCTTTTCATGTACACTTTATATATACTTCA  
TTAAATTATATTTTAAACCCTTGTATAATTTTAAGCATTGTTCCCTCAGAACATTTGTAAAAGGATATATTTCTG  
CTTGACCAGCGAGATGTGCATTTTGCCAGGATCATATTGGTCATGTCTATTGGTGTATTATTTTCAGTATCACCAA  
TGTTTTCAGAAATACAGTACTAATTCATCATTAAGTCTTTGAAGTTAATATTTTCTGCCTTCTAACTTATAGA  
CTCAACTATGTATCTGTAGTTTTTGGGAATGGTTGGTGTTTTTTGCTTTGTGTTGGGAAGTTATTGAGAAAACCT  
ATATAATAAAATTTAAATTATAGTTTTTCAA

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**FIGURE 1040**

MKMVTGAVASVLEDEATDTSDSEGSCGSEKDHFYSDDDAIEADSEGDAEPCDKENENDGESSVGTNMGWADAMAK  
VLNKKTPESKPTILVKNKKLEKEKEKLKQERLEKIKQRDKRLEWEMMCRVKPDVVQDKETERNLQRIATRQVVQL  
FNAVQKHQKNVDEKVKEAGSSMRKRAKLISTVSKKDFISVLRGMDGSTNETASSRKKPKAKQTEVKSEEGPGWTI  
LRDDFMMGASMKDWDKESDGPDDSRPESASDST

**FIGURE 1041**

**FIGURE 1041**

GCTGCGCGCCCGCGACTCGGGGCGAGCGCGGGAGCCGCGACAGTACAGCGGAGCGCGCCCGGCGAGCGGGCCATGGCC  
 GCGGGGGCGCGCGCCGCGAGGTGGTGGCGCGCGGTGAGGAGAGCGCGCGCCCCCTCCGGGGCGGATGGAACGCGG  
 CTCGGCGGGCGGGCAGTGCCGGCGTCCGCGGCTGGAATGGTGTGGCTGTGTTGGTTCGGTGCCTGCGTTCTGAAG  
 CCCGAGAGGAGCCACA**ATG**GAGACGCCGCCGCTGCCTCCCGCATGCACAAAGCAGGGTCATCAGAAGCCTCTCGA  
 TTCAAAGATGATAATACCGAAAAAACTGCCCAGTGACAGTGAATCCTTGGCATATGAAGAAAGCTTTCAAAGT  
 CATGAACGAATTAAGAAGTCAAAATTTGCTGTGCGATGTCACAAATTGTGGCAGAAGACATGGAATTTTCTGCTCA  
 TAGAGTGGTGTCTGGCCGCTGTAGTCCTTATTTTCATGCCATGTTTACAGGTGAGATGAGTGAGAGCCGAGCAAA  
 GAGAGTTAGAATAAAAGAGGTAGATGGCTGGACCTGAGGATGCTAATTGATTATGTTTACACTGCAGAAATTCA  
 GGTTACAGAAGAAAATGTACAGGTACTTCTCCAGCAGCTGGTCTCTTACAGTTACAGGATGTGAAGAAGACTTG  
 TTGTGAATTTTTTGAATCCAGCTTCACCTGTCAACTGCTTAGGAATCCGGGCTTTTGTGATATGCATGCATG  
 TACTGACCTTCTGAACAAGGCCAACACCTATGCAGAGCAACATTTTGCAGATGTTGTACTTAGTGAAGAATTTCT  
 CAATCTTGGCATCGAACAAGTGTGCAGCTTAATCTCAAGTGACAACTTACCATTTCTTCAGAAGAGAAGGTATT  
 TGAAGCAGTAATAGCATGGGTGAACCATGACAAGGATGTGAGGCAAGAGTTTATGGCCCGACTGATGGAACATGT  
 ACGGTTACCTTTGCTTCTCGGGAATATTTAGTTTCAGAGGGTTGAAGAGGAAGCATTGGTCAAGAATAGCAGTGC  
 TTGCAAAGATTACCTCATTGAAGCAATGAAGTACCATTTGCTGCCAACAGAGCAGCGTATATTAATGAAGAGTGT  
 CCGGACCCCGCTGAGGACACCCATGAACCTTCCCAAATTGATGGTGGTGGTTGGGGGCCAAGCACCAAAGGCTAT  
 CCGGAGTGTGGAATGCTATGACTTTAAAGAAGAAAGGTGGCACCAAGTAGCAGAGTTGCCTTCCAGGAGGTGCAG  
 GGCAGGCATGGTCTACATGGCTGGACTTGTTTTGCTGTTGGTGGCTTTAATGGCTCATTAAAGAGTTTCGCACTGT  
 AGATTCTACGACCCTGTGAAGGACCAGTGGACCAGCGTTGCTAACATGAGAGACCGGAGAAGCACTTTGGGAGC  
 TGCTGTGTTAAATGGATTATTATACGCTGTGGGAGGCTTTGATGGGAGTACAGGTTTGTATCTGTGGAAGCATA  
 CAACATAAAGTCTAATGAGTGGTTTTCATGTAGCTCCCATGAATACAAGGAGGAGCAGTGTTGGTGTGGGTGTTGT  
 TGGAGGTTTTGCTCTATGCTGTAGGAGGTTATGATGTAGCATCACGTCAGTGTCTTAGCACAGTAGAATGCTATAA  
 TGCTACAACAAATGAGTGGACCTATATAGCAGAAATGAGCACCAGGCGGAGTGGAGCAGGTGTTGGTGTGTTAA  
 CAATTTATTGTATGCTGTAGGAGGTCATGATGGCCCTTTAGTACGAAAAAGTGTTGAAGTATATGATCCCACCAC  
 TAACGCATGGAGACAGGTTGCAGATATGAACATGTGCAGAAGAAATGCAGGAGTTTGTGCAGTTAATGGTCTGTT  
 ATATGTTGTTGGAGGGGATGATGGTTTCTGTAACCTTGGCGTCAGTAGAATATTATAACCAACAACCGATAAATG  
 GACAGTTGTGTGCATCGTGTATGAGCACAGGAGAAGTTATGCAGGGGTCACAGTTATTGATAAACGATTAT**TGAGC**  
 CTGAAGGACATTTTCAGCATATTTATACATGAGAAACAGCCTTCAACAAGTATTTGTGAAGTGACTGAGAATCTA  
 GCATTTCTCCACTTGTAGCTGCATTTAAGTCTCAGCAGAAGATACGATCGTCTGCCTTTATAGGCCTCAGATAC  
 TGAAGATTATTTTTGGTAGAAGCACCGTGTAGGCTTTTTCTGCAATGAGCAGCAGCTGACTGAATTTTCATAAGA  
 AACTTGGACTGCAGGACTTAATCTGTAGTCTTTAGACAACAGTTGCTTTTATAAAGACTAGTTCTTATCAACCTT  
 GAATGACTACAGATTATTTTGTGAAGGAGGATGAAGTAATGTGTGTTCTTGTAATAATTAAATTTTATCTTTATTT  
 CTTCTAAAAATCTGTATACCAGGAAGTAAAAATCTTTGAACAGATATTAATAATCTACGTAAGTATACAACTAGT  
 TGAGGGATACACTGTTTGCTTTTATAAAATAACTTTGATTACATGAATATAATAAATTATGTGCATATAAATGTG  
 TGTCTATATGCTTTTCTTTAAATATGTTTGAAAAGATGTTTGAACTTGATTATACTATTTATAATTGGCACAGT  
 ACTTTGAATTATGCCAGTACTACATTGTAAAACAGAGTTGTATTTTTTGATATTTAACAATGCTTAACACTTTAA  
 ATGCCACTTCTGAGGAATGGACCTGGTGTAAACACACTTGAATATGTGTGATGCCAACTTTTTTAAATACAATAT  
 AAGTTATGCTTATTTATTTATTTTCTTTAGTTTAACTCTTGGTCATGTTTTGGTGTGTATTTTTAATTTTTTCTTA  
 AATTAACACTTTGGCATGAACATTACTGCAGGTTTTTGATGAATATAATGAATGTATGGAATTCAATTGAATTTG  
 CATGGTCTTCGGAATTTTTTCTGTGTGTATAAAATTTAGCTGCTATTAACAGAAGAGAGAACTTTCTGTGAGTAGC  
 CATGTGTGTTGATCAGATACAGTTTTTCTGAGATCTTCAATTAATCTCACTTTAAAAATGACCAAAACATGTCTT  
 TCTTGAATTAACCTTTGAATAAAAGTTTTGTATATTAAAAA  
 AAAAAAAAAA

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**FIGURE 1042**

METPPLPPACTKQGHQKPLDSKDDNTEKHCPVTVNPWHMKKAFKVMNELRSQNLLCDVTIVAEDMEISAHRVVLA  
ACSPYFHAMFTGEMSESRAKRVRIKEVDGWTLRMLIDYVYTAEIQVTEENVQVLLPAAGLLQLQDVKKTCCEFLE  
SQLHPVNCLGIRAFADMHACTDLLNKANTYAEQHFADVVLSEEFNLGIEQVCSLISSDKLTISSEEKVF EAVIA  
WVNHDKDVRQEFMARLMEHVRLPLLPREYLVQRVEEEALVKNSSACKDYLIAMKYHLLPTEQRILMKSVRTRLR  
TPMNLPKLMVVVGGQAPKAIRSVECYDFKEERWHQVAELPSRRCRAGMVYAGLVFAVGGFNGSLRVRTVDSYDP  
VKDQWTSVANMRDRRSTLGA AVLNGLLYAVGGFDGSTGLSSVEAYNIKSNEWFHVAPMNTRRSSVG VG VVGGLLY  
AVGGYDVASRQCLSTVECYNATTNEWYIAEMSTRSGAGVGLNLLYAVGGHDGPLVRKSVEVYDPTTNAWRQ  
VADMNMCRRNAGVCAVNGLLYVVGDDGSCNLASVEYYNPTTDKWTVVSSCMSTGRSYAGVTVIDKRL

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**FIGURE 1043**

AGAAATCAACTGCTTAGCCGGGTTGTTAGGAGGATCTGATGAGACTAGGATGTGAGTTGAAACTGCTGTGCCAGG  
CACACCTGTGTGGGTCTCACTTGTGCCAGGCATACCTGCGTGGGTCTCACCTGTGTAGGTCTCACCTGTGCCAGG  
TGTACCTGTGTGGGTCTTACCTGTGCAGGTCTCCTGATGCAGGTCTCACCTGTGCCGAGTGTACCTACCTGTGCG  
GGTCTCACCTGTGTGAGGCGTACGTGTAGGGGTCTCACCTGTGAACGTCTCACCTGTGCCAGGTGTATACCTGTG  
TGGCTCTCACTTGTGTGGGTCTGGTATGTGACAAAGGCCTGGGAATTGGCAGCTGTATCTGCCAGGAGCAGACC  
CTGAGCCAAGTTCCCTGTGCCTTAGGCTCATTTTCATGCCCTCAGCTCTGGGAGGCCAATCCCTTTACTGCCACAT  
TTTATAAATGGAAGACTGAGGTTAAGCAGTGGGCCCAGGGCCATAGAACAGCTGAGCTGTGGAGCTGGACATCGA  
CCTTGGGCAGGTGCTGCCAGGGGCCCTGAGCCCAGGCCCTCCACTCCCGCATCCTCTGATGACCCATCCTGGGTGA  
GTGGAGGCATCTGCCCCGCCAGTCAGGCCCAGTGGTGATGGCCCCCATGCCACAGGACAGAAGCTGCTGGACT  
CACTGGCAGAGACCTGGGACTTCTTCTTTCAGTGACGTGCTGCCCCATGCTGCAGGCCATCTTCTACCCGGTGCAGG  
GCAAGGAGCCATCGGTGCGCCAGCTGGCCCTGCTGCACTTCCGGAATGCCATCACCCCTCAGTGTGAAGCTAGAGG  
ATGCGCTGGCCCCGGGCCCCATGCCCCGCTGCCCCCTGCCATCGTGCAGATGCTGCTGGTGCTGCAGGGGGTACATG  
AGTCCAGGGGCGTGACTGAGGACTACCTGCGCCTGGAGACGCTGGTCCAGAAGGTGGTGTCGCCATACCTGGGCA  
CCTACGGCCTCCACTCCAGCGAGGGGGCCCTTACCCATTTCCTGCATCCTGGAAAAGCGCCTCCTCCGCCGCTCCC  
GCTCGGGGGACGTGCTGGCCAAGAACCCTGTGGTGCGCTCCAAGAGCTACAACACGCCCTCTGCTGAACCCCGTGC  
AGGAGCACGAGGCGGAGGGCGCGGCGGCCGGCGGTACCAGCATCCGCTGGCACTCTGTGTGCGGAGATGACGTCTT  
GCCCCGAGCCTCAGGGCTTCTCCGACCCGCCCGGCCAGGGCCCCACCGGGACCTTCAGGTCTTCCCGGCGCCCC  
ACTCAGGGCCCTGCCCCAGCAGACTGTACCCACGACCCAGCCCCCTGAGCAGGGCTTGGATCCACCCGCAGCT  
CCCTGCCCCGCTCCAGCCCGGAGAACCTGGTGGACCAGATCCTGGAGTCCGTGGACTCGGATTCTGAAGGGATTT  
TCATTGACTTTGGCCGGGGCCGGGGCTCTGGCATGTCCGACTTGGAGGGCTCTGGGGCCGGCAGAGTGTCTGTG**T**  
**G**AGGCCTCACAGCTGGCCTTGAGTTTTTACTGACACGTCCCTGTGTGCGGGGTGTCCATGTGGCGTGTGTGTGA  
GTGAGACTTTTTTACTGCGTCCCGTCCCGCCAGCCCTGTGCGCCTCGTCACTGGCCTTGGTCACTTTGTATTTCT  
GTCTTGGTTGAAATACCATCAGCCTTCCTTGCTCGGCCAGGTCTGTTTCAGGCATCTGAGTCAGCGTTTACCC  
AGGGGCCGGGCCAGAGACGGGGGCCGGCGCTCGCTCCACGCTCCTCCTGCCCCAGCCCTCTGGTGTCCACACC  
TGCCACAGAGAATGTAAACCCAGTGGGCTCTGCCACGCGGGGCCCCAAAGTGACCAGACTCCAGCACACCTGT  
CTCCTCCTGCCTGGGGTGGCCATGGGGATGGAAGGGGGTGAATAAAACCTGTCAACCTGAAAAAAAAAAAAAA  
AAAAAA

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**FIGURE 1044**

MAPMPTGQKLLDSLAETWDDFFSDVLPMLQAIFYPVQGKEPSVRQLALLHFRNAITLSVKLEDALARAHARVPPA  
IVQMLLVLQGVHESRGVTEGYLRLETLVQKVVSPYLGTYGLHSSEGPFTHSCILEKRLRRRSRGDVLAKNPVVR  
SKSYNTPLLNPNVQEHEAEGAAAGGTSIRWHSVSEMTSCPEPQGFSDPPGQGPTGTFRSSPAPHSGPCPSRLYPTT  
QPPEQGLDPTRSSLPSSPENLVDQILESVDSDSEGIFFIDFGRGRGSGMSDLEGS GGRQSVV

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**FIGURE 1045**

TGTCAAAAGCCTGCACACGAGACCCCGTGGGCCAGGACTGACTTCCTCCCCACACAGGGCTGGGCGGGGCAAGC  
AGGAAGGAGCCTGTTACAGTCAAGGTGACGCATCCTTGCCGGGCCAGCCCGAACAGCAGCTGGGTGCGCAAGCGA  
CAGGAGCACGGGTCATCTTTTCCCCAGAGGCGTCGGAATGACCTGTGCCACCCAGAGCCCGCGGAGCTGAGCAG  
CGGGGAGACGGAAGAGTTACAGAGGATCAAGTGGCACCGAAAGCAGCTCCTGGAGGACATCCAGAAGCTGAAGGA  
TGAGATTGCAGATGTGTTTGCCCAAATCGACTGCTTCGAGAGTGCGGAGGAGAGCCGGATGGCCAGAAGGAGAA  
GGAGCTGTGTATTGGGCGCAAGAAGTTCAACATGGACCCCGCCAAGGGTATCCAGTATTTTATTGAGCACAAAGCT  
GCTGACCCCTGACGTCCAGGACATTGCACGGTTCTGTATAAAGGCGAGGGCCTCAACAAGACAGCCATTGGTAC  
CTACCTGGGGGAGAGGGATCCCATCAACCTGCAGGTCTCCAGGCCTTCGTGGACTGCCACGAGTTCGCCAACCT  
CAACCTCGTCCAGGCCCTCAGGCAGTTCTGTGGAGCTTCCGGCTGCCGGGCGAGGCCCAGAAGATAGACCGGAT  
GATGGAGGCCCTTTGCCACTCGATACTGCCTCTGCAACCCAGGCGTCTTCCAGTCCACAGACACCTGCTACGTGTT  
GTCCTTCTCCATCATCATGCTCAACACCAGCCTCCACAATCCCAACGTCCGGGACAGGCCGCCTTTTCGAGCGCTT  
TGTGTCCATGAACCGCGGCATCAACAATGGTAGCGACCTGCCCCGAGGACCAGCTGCGGAACCTCTTCGACAGCAT  
CAAGAGTGAGCCATTCTCCATCCCTGAGGACGACGGCAATGACCTCACTCACACCTTCTTCAATCCAGACCGGGA  
GGGTTGGCTGCTCAAGCTAGGGGGCCGCGTGAAGACGTGGAAACGGCGCTGGTTCATCCTGACCGACAACCTGCCT  
CTACTACTTCGAGTTCACCACTGACAAGGAGCCACGGGGAATTATACCTCTTGAGAACCTCTCGGTGCAGAAGGT  
GGATGACCCCAAGAAGCCATTCTGCCTGGAGCTCTACAACCTTAGCTGCCGAGGCCAGAAAATCAAGGCCTGCAA  
GACCGATGGCGACGGCAGGGTGGTGGAGGGCAAGCACGAATCGTACCGCATCTCAGCCACCAGTGCCGAGGAACG  
TGACCAGTGGATCGAGTCCATCCGAGCCAGCATCACCCGTGTCCCCTTCTACGACCTGGTCTCTACTCGGAAGAA  
GAAGATTGCCAGCAAGCAGTGAGATTCTGGAGGTGGCACTGGGGGCTGGTACCCTGAGAGTCCCATCGCCTGC  
AGCACCTGGAGACCCACCTCCACCCCACTGCACCTCTTTGGGCCACAGACATCATTGCTGTTCCCCGTTACCTC  
GAGCTGACTCTAGAGGGGAAGGCAGAGCTCAGGAGGGTGGGTGGGAGCTGCAGTGGGCTCAGAGTCCAGCAATGA  
GGCCCCCTGGCCTGGGCACCCAGCTGCAGGCCCTGCCCCTACGTGCACTACAGGAAGGGGTGAGGAGAGCAGCCA  
GAGGAAAACCCAGCCCCAGAATGCTGCAACTTCTCTTCTCTGGAATTCGGTGTCTCGGCTCTGAAGGCGCTCT  
CTGCACTTAGATGCTGTGAGCCCTCAACGTAGGAGGGGCCGTGGGGTCCCTAAGTGATTCTTCTCCCTGGCAAGG  
CTCTTCCCTTTTCAGGGATATCTCTGCCAACCCCTTCCCCTGTCTCGGGTGGGCTTGGCCCTCTCTGCCTGAGAG  
AGCTCAGCACACACAGCTCAGACCCACGGACAGGACCCCGGGACAGAACCCCGGGAGCACTGCCCTAGGAGCC  
TGGACCCACAGAGCTCAGTCCAGCTCTGCCTCTGACTCGCTGTGTACCCTCTGCCAAGTCATGCCCATTCTCTA  
GTTCTTGCAAACTGCAGTGTTTGGACTAGAAACGTATTGGCCCCGTGCTAGCCCTGTGCTCCAGCTTCCAGCTGG  
AGATGGCAGCCGTTATTTGCGGAGCCAGGCTGACTCCGGATTCAACGTTGCTGGGGAGAGAAAAGCAGTATAGA  
CTCCACCTTCCAGGATGTCCATTTGCGGGAGAGGAGCAGGTGGGACCCTCAAGAAAATGACGGAGAACATCCAG  
ACAGATGGGACTCAAGCAGGATGGGTGCTATATCCAAGAAGCCAAGAAGGGAGAGTTTCGTGCACTGTGGTTAAC  
AGGAGGGCCGCTGGAGGCAGTGGCTGAGCCAGAAAGTAACACAGAGCTCATGCTTGGAGAGATAGAGTCTTGGC  
CATGGCTTTCCTGCAAGACCACTGACGAGCAGTCCCATGGTGATAAAGGGCAGCCCGGCGGGTCCCAGCATCTCG  
AGACCTCTGCAGAAGTATTATCAGAGTAGAGCTGACTTCCAGTACCCGGGCAGCCAGCTCTGTCTCCAGGGAGG  
CCTGGCCTGGAGGAGGAGTCCACTAACAGGAAACACTTCTCACCCCTCACACAGGCCCAGGGGAGCCCTGGAG  
GGAAATTCCTTGGCAGGGGAACAGGAAATGTGGTCGCCTCTGCCCCACTGCCAGCCTGAGTGGGCAAGGAAGCAG  
GTGGATCCCCCAGAAGGAACCGCAGCTCGCGAGGCACCTCTCCTCGTCCCCACCCACCCACATTTGCACACCT  
TCCACAGGGTCAGGATGGAGTAGCTGCCTTGGCAGGTGGTGAGACTCCTGTCTCTGGAGGTCTGCAAGCACTGGT  
AGTGATATTGCAGCAGACAAGGTCTGGGTTGGGCGTCTGCAGGAGGAGACCTTGTGGGACATCTGAGGACATCCG  
CAGATTCTTGTGAGCCTGTGAAGTAGGCCCTGCCTCTGTACCTCATTGGTCCATGAAGGAGCAGCCAGGGGTGG  
TGGAAGGAGCACTGGGCTAGGGGTGAGGGGTGAGAGATTCTGTCTCTGCTCTGGGATGCACTGGCTACTCCCTTA  
GTCTACTCCCTTCCCCTCTCTGGTCCTCAGCTTCTCCATCATGGAGGAGATGGGATCATGGATTTTCTGGGCAT  
AAGTGGCTGTTCTGGGAGTCATTCCAAAGAGAGAATAAACTCCTGATCCAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1046**

MDLCHPEPAELSSGETEELQRIKWHRKQLLEDIQKLKDEIADVFAQIDCFESAEESRMAQKEKELCIGRKKFNMD  
PAKGIQYFIEHKLLTPDVQDIARFLYKGEGLNKTAIGTYLGERDPINLQVLQAFVDCHEFANLNLVQALRQFLWS  
FRLPGEAQKIDRMMEAFATRYCLCNPGVFQSTDTCYVLSFSIIMLNTSLHNPVNDRPPFERFVSMNRGBINNGSD  
LPEDQLRNLFDSIKSEPFSSIPEDDGNDLTHTFNPDREGWLLKLGGRVKTKRRWFILTDNCLYYFEFTTDKEPR  
GIIPLENLSVQKVDDPKKPFCELYNPSCRGQKIKACKTDGDGRVVEGKHESYRISATSAEERDQWIESIRASIT  
RVPFYDLVSTRKKKIASKQ



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**FIGURE 1047**

GTGTTTTCTGCGTGAGAGGAAAAGATGCTAGAACCACAGGAGAATGGCGTGATTGACCTACCAGATTATGAGCAT  
GTAGAAGATGAAACTTTTCTCCTTTCCACCTCCAGCCTCTCCAGAGAGACAAGATGGTGAAGGAACTGAGCCT  
GATGAAGAGTCAGGAAATGGAGCACCTGTTCTGTACCTCCAAAGAGAACAGTTAAAAGAAATATACCCAAGCTG  
GATGCTCAGAGATTAATTTAGAGAGAGGACTTCCAGCCTTAAGGCATGTATTTGATAAGGCAAAATTCAAAGGT  
AAAGGTCATGAGGCTGAAGACTTGAAGATGCTAATCAGACACATGGAGCACTGGGCACATAGGCTATTCCCTAAA  
CTGCAGTTTGAGGATTTTATTGACAGAGTTGAATACCTGGGAAGTAAAAAGGAAGTTCAGACCTGTTTAAACGA  
ATTGCACTTGATCTCCCTATTTTACATGAAGATTTTGTTAGCAATAATGATGAAGTTGCGGAGAATAATGAACAT  
GATGTCACTTCTACTGAATTAGATCCCTTTCTGACAACTTATCTGAAAGTGAGATGTTTGCTTCTGAGTTAAGT  
AGAAGCCTAACAGAAGAGCAACAACGAAGAATTGAGAGAAATAAACAACTGGCCTTGGAAGAAGGCAGGCAAAG  
CTGCTGAGTAATAGTCAGACCCTAGGAAATGATATGTTAATGAATACACCCAGGGCACACACGGTTGAAGAGGTT  
AATACTGATGAGGATCAAAGGAGGAGTCAAATGGATTAAACGAAGACATTCTGGACAATCCATGTAATGATGCT  
ATTGCCAATACTTTAAATGAAGAGGAAACACTGCTGGACCAGTCTTTTAAAAATGTGCAACAGCAACTTGATGCT  
ACATCCAGAAATATTACTGAAGCTAGATTAAGTTTCCATTAAAGAGAAAATGTATCTGTTAAGTCATCGTCCTGCAA  
GCTTGGCGTTACTATGTATTTTTTCTTCTTGGAGTGAAAATCCTTAGATAGTAAACTGTTATAGATTATTGTTT  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1048**

MLEPQENGVIDLPDYEHVEDETFPPFPPPPASPERQDGEGTEPDEESGNGAPVPVPPKRTVKNIPKLDAQRLISE  
RGLPALRHVFDKAKFKGKGHEADLKMLIRHMEHWAHRLFPKLQFEDFIDRVEYLGSKKEVQTCLKRIRLDLPIL  
HEDFVSNNDEVAENNEHDTVSTELDPFLTNLSESEMFASELSRSLTEEQQORRIERNKQLALERRQAKLLSNSQTL  
GNDMLMNTPRAHTVEEVNTDEDQKEESNGLNEDILDNPCNDIAIANTLNEEETLLDQSFKNVQQQLDATSRNITEA  
R

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**FIGURE 1049A**

CGCTCGGAAAGTTTCAGCATGCAGGAAGTTTGGGGAGAGCTCGGCGATTAGCACAGCGACCCGGGCCAGCGCAGGG  
CGAGCGCAGGCGGCGAGAGCGCAGGGCGGCGCGGCGTTCGGTCCCGGGAGCAGAACCCGGCTTTTTCTTGGAGCGA  
CGCTGTCTCTAGTCGCTGATCCCAAATGACCGGCTCATCTTTGTCTACACTCTAATCTGCGCAAACCTTTTGCAG  
CTGTCTGGGACACTTCTGCAACCCCGCAGAGCGCATCCATCAAAGCTTTGCGCAACGCCAACCTCAGGCGAGATGA  
GAGCAATCACCTCACAGACTTGTACCGAAGAGATGAGACCATCCAGGTGAAAGGAAACGGCTACGTGCAGAGTCC  
TAGATTCCCGAACAGCTACCCAGGAACCTGCTCCTGACATGGCGGCTTCACTCTCAGGAGAATACACGGATACA  
GCTAGTGTGTTGACAATCAGTTTGGATTAGAGGAAGCAGAAAATGATATCTGTAGGTATGATTTTGTGGAAGTTGA  
AGATATATCCGAAACCAGTACCATTATTAGAGGACGATGGTGTGGACACAAGGAAGTTCCCTCCAAGGATAAAATC  
AAGAACGAACCAAAATTAATACATTCAAGTCCGATGACTACTTTGTGGCTAAACCTGGATTCAAGATTTATTA  
TTCTTTGTCTGGAAGATTTCCAACCCGACAGCTTCAGAGACCAACTGGGAATCTGTGACAAGCTCTATTTTCAGG  
GGTATCCTATAACTCTCCATCAGTAACGGATCCCACTCTGATTGCGGATGCTCTGGACAAAAAATTGCAGAATT  
TGATACAGTGGAAAGATCTGCTCAAGTACTTCAATCCAGAGTCATGGCAAGAAGATCTTGAGAATATGTATCTGGA  
CACCCCTCGGTATCGAGGCAGGTCATACCATGACCGGAAGTCAAAAAGTTGACCTGGATAGGCTCAATGATGATGC  
CAAGCGTTACAGTTGCACTCCAGGAATTACTCGGTCAATATAAGAGAAGAGCTGAAGTTGGCCAATGTGGTCTT  
CTTTCCACGTTGCCCTCTCGTGCAGCGCTGTGGAGGAAATTGTGGCTGTGGAAGTGTCAACTGGAGGTCCTGCAC  
ATGCAATTCAGGGAAAACCGTGAAAAAGTATCATGAGGTATTACAGTTTGGAGCTGGCCACATCAAGAGGAGGGG  
TAGAGCTAAGACCATGGCTCTAGTTGACATCCAGTTGGATCACCATGAACGATGTGATTGTATCTGCAGCTCAAG  
ACCACCTCGATTAAGAGAATGTGCACATCCTTACATTAAGCCTGAAAGAACCTTTAGTTTAAAGGAGGGTGAGATAA  
GAGACCCCTTTTCTACCAGCAACCAAACTTACTACTAGCCTGCAATGCAATGAACACAAGTGGTTGCTGAGTCTC  
AGCCTTGCTTTGTTAATGCCATGGCAAGTAGAAAGGTATATCATCAACTTCTATACCTAAGAATATAGGATTGCA  
TTTAATAATAGTGTGTTGAGGTTATATATGCACAAACACACAGAAATATATTCATGTCTATGTGTATATAGATC  
AAATGTTTTTTTTTGGTATATATAACCAGGTACACCAGAGCTTACATATGTTTGGAGTTAGACTCTTAAAAATCCTTT  
GCCAAAATAAGGGATGGTCAAATATATGAAACATGTCTTTAGAAAATTTAGGAGATAAATTTATTTTTAAATTTT  
GAAACACAAAACAATTTTGAATCTTGCTCTCTTAAAGAAAGCATCTTGATATATTAATAATCAAAGATGAGGCTT  
TCTTACATATACATCTTAGTTGATTATTAATAAAGGAAAAATATGGTTTCCAGAGAAAAGGCCAATACCTAAGCA  
TTTTTTCCATGAGAAGCACTGCATACCTTACCTATGTGGACTATAATAACCTGTCTCCAAAACCATGCCATAATAA  
TATAAGTGCTTTAGAAATTAATCATTGTGTTTTTTATGCATTTTGTCTGAGGCATGCTTATTCATTTAACACCTA  
TCTCAAAAACCTTACTTAGAAGTTTTTTTATTATAGTCTTACAAAAGACAATGTATAAGCTGTAACAGAATTTTGA  
ATTGTTTTTCTTTGCAAAAACCCCTCCACAAAAGCAAATCCTTTCAAGAATGGCATGGGCATTCTGTATGAACCTT  
TCCAGATGGTGTTCAGTGAAAGATGTGGGTAGTTGAGAACTTAAAAAGTGAACATTGAAACATCGACGTAACCTGG  
AAATTAGGTGGGATATTTGATAGGATCCATATCTAATAATGGATTGGAACCTCTCCAACTACACCAATTAATTTA  
ATGTATCTTGCTTTTGTGTTCCCGTCTTTTTGAAATATAGACATGGATTTATAATGGCATTATTTATTTGGCAGG  
CCATCATAGATTATTTACAACCTAAAAGCTTTTGTGTATCAAAAAATCACATTTTATTAATGTAAATTTCTAAT  
CGTATACTTGCTCACTGTTCTGATTTCTGTTTCTGAACCAAGTAAATCAGTCTTAGAGGCTATGGTTCTTAAT  
CTATGGAGCTTGCTTTAAGAAGCCAGTTGTCAATTGTGGTAACACAAGTTTGGCCCTGCTGTCCTACTGTTTAAAT  
AGAAAACGTTTTACATTGGTTAATGGTATTTAGAGTAATTTTTTCTCTCTGCTCCTTTGTGTCTGTTTTAAAG  
GAGACTAACTCCAGGAGTAGGAAATGATTCATCATCTCCAAAGCAAGAGGCTTAAGAGAGAAACACCGAAATTC  
AGATAGCTCAGGGACTGCTAACAGAGAACTACATTTTTTCTTATTGCCTTGAAAGTTAAAAGGAAAGCAGATTTT  
TTCAGTGACTTTGTGGTCTACTAATAACAGTTTGGGTGACAGGGCTGGTAAAGTCCAGTGTTAGATGAG  
TGACCTAAATATACTTAGATTTCTAAGTATGGTGCTCTCAGGTCCAAGTTCAACTATTCTTAAGCAGTGCAATTC  
TTCCAGTTATTTGAGATGAAAGATCTCTGCTTATTGAAGATGTACCTTCTAAAACTTTCTTAAAGTGCTGAT  
GTTTTTACTCAAGAGGGGAGTGGTAAAATTAATACTCTATTGTTCAATTCTCTAAAAATCCCAGAACACAATCAG  
AAATAGCTCAGGCAGACACTAATAATTAAGAAGCTCTTCTCTTCACTGCTTTGCAAGTTTCTGTGAAAA  
CATCAGTTTCTGTACCAAAGTCAAAATGAACGTTACATCACTCTAACCTGAACAGCTCACAAATGTAGCTGTAAA  
TATAAAAAATGAGAGTGTTCTACCCAGTTTTTCAATAAACCTTCCAGGCTGCAATAACCAGCAAGTTTTTCAAGTTA  
AAGCCCTATCTGCATTTTATTTATTAGCTGAAATGTAAGCAGGCATATTCATCTCACTTTTCTTTGCCTTTCTT  
GAGAGTTTTTATTAATACTTCTCCCTTGGTTACCTGTTATCTTTTGCACTTCTAACATGTAGCCAATAAATCTATT  
TGATAGCCATCAAAGGAATAAAAAGCTGGCCGTACAAATTACATTTCAAAACAAACCCCTAATAAATCCACATTTT

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**FIGURE 1049B**

CGCATGGCTCATTACCTGGAATAATGCCTTTTATTGAATATGTTCTTATAGGGCAAAACACTTTCATAAGTAGA  
GTTTTTATGTTTTTGTTCATATCGGTAACATGCAGCTTTTTCCTCTCATAGCATTTTCTATAGCGAATGTAATA  
TGCCTCTTATCTTCATGAAAAATAAATATTGCTTTTGAACAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1050**

MHRLIFVYTLICANFCSCRDTSATPQSASIKALRNANLRRDESNHLTDLYRRDETIQVKNGYVQSPRFPNSYPR  
NLLLTWRLHSQENTRIQLVFDNQFGLEEAENDICRYDFVEVEDISETSTIIRGRWCGHKEVPPRIKSRTNQIKIT  
FKSDDYFVAKPGFKIYYSLLEDFQPAAASETNWESVTSSISGVSYNSPSVTDPTLIADALDKKIAEFDTVEDLLK  
YFNPESWQEDLENMYLDTPRYRGRSYHDRKSKVDLDRNLNDDAKRYSCTPRNYSVNIREELKLANVVFFPRCLLVQ  
RCGGNCGCGTVNWRSTCNSGKTVKKYHEVLQFEPGHIKRRGRAKTMALVDIQLDHHERCDCICSSRPPR

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**FIGURE 1051**

AGTCGCTGTTTGGGACGCTGGGTGTGCGGTGTTCTGTCTCCGCTCCCGTTTCGCTGTACAGCCCGTTCCCTCCCG  
GGAGCCCGGGACAGGCTGGGCGCGCGCCCGTGTGAGTGAGCGGGACTCAGGGCAGAAGTGTCCTTCACTGCGTT  
TTTTTTTCCCTTTTATCCAAAGAACGGGGCAGTTAGTAGCCTTGCCCTTCTGTGCGCCCGTTGGGAGCGGGGTTGG  
TGTGCGGAGTGGTTCGCCTTTTTTTCTTTAGAACTTGTGAGCCTTTTTTTTTTTTTTTTTTTTTTCTTTCTTTTTTT  
AGGCTCAGTGCTGTCCGGGCTGGTTTGCCCGGTCCCTGACTAACGGCTTTCTGCCCCCTTCTCTCGCCACCCCTGC  
CCAAGGTCGCCCCCTGTCCTTCGCCCCCTGTCCCGGGAGGGTGGGAAGCTTTGACCCCGCCCTGCCACTCGCGTC  
TCCGCAGCCGTAGCCGCGCCTGTCCCAATATGAATAGGGTCAACGACCCACTTATTTTTATAAGAGATATTAAGC  
CCGGACTGAAAACTTAAATGTCGTCTTTATTGTCTGGAGATAGGACGCGTGACCAAAACCAAGACGGCCATG  
AAGTGAGATCGTGCAAAGTAGCAGATAAAACGGGCAGCATCACTATTCCGTGTGGGATGAGATCGGAGGTCTTA  
TACAGCCAGGGGATATTATTCGGTTGACCAGAGGGTATGCATCCATGTGAAAGGATGTCTGACACTTTATACTG  
GAAGGGGTGGTGAACCTTCAAAAAATTGGGGATCTAGGTGCGGTGCAGGCAGCCGCAATGCGAGATTCCATACACT  
ACTACCCTGGTAATGATCTCCACCCTGACCTGGAGGAGCCATCCTCTCTAGGGGTGTAAGATTTTGTATGGTTTA  
TTCAGAAAGTGCCAAATTTCACTGAACCCAACCCAGATTATCGAGGACAGCAGAACAAAGGGGCACAGAGTGAACA  
GAAGAATAATTCCATGAATAGTAATATGGGTACAGGTACATTTGGACCAGTGGGAAATGGTGTTCACACTGGCCC  
TGAATCAAGGGAACACCAGTTTTTACATGCTGGCAGAAGCAATGGCCGGGGACTTATAAATCCACAACCTACAAGG  
AACAGCTAGTAATCAAACAGTGATGACCACAATAAGTAATGGCAGGGACCCCTCGGAGAGCCTTTAAAGATGACC  
TATGCTAAATACTCATGTGTAGTTTTTATACTACATGCCCTACTTGAACACTTATTGCACTTTTATTTATTGTTA  
ACTGTGAAAAGTACGTCTTTTATTGGGTTTCTTTTATATTCTTGGTTTGTTAAGAAGAATGGTTTGTTTTTATA  
GCAAACTGTTAAGCTGCTCGAGTCTCCTGTTGAAGAATGGGAACACTGAAAAGTAGGGGCATTTATTTTTAGAG  
TAAAAAGATTATTGGATAGCCTTTAAAAAACCTGCACCCATTTTCATGGGTGAGTTACTTAAGACATCAGCTTTAT  
AGCCTCTATGAGTCTATCTTCTGTATAAGTTTTGTAAATATTTAACATAAGGCTTAATGGGAGATGTTCTTTTGTC  
TTGTATTAGATATTGCCAACTAAAGCAATAACCATCAAAAAACACAAGAACTTGTCAATGCTAGCAGTAATTTT  
TGAGTGTGTGCGCTCTCGGAATGATTGACTTCGTTTCACTGACTACTATTAAGATTTTCCAAGGACTGACTCATC  
CCAAATTTTGTGTATTACCAAAAAAACAGATTTCCTTATCAGAATTTGGAATAGAATGTGATCTCTATTGCAAC  
AAGTAATTTTAAAAGAAAGCTACATTTATTTTAGAGTAGTGCTCCTAACATGTATTATCAACTTTGTGGATTACA  
TTGGAGGAAAAATTTAAACTGGGGCCTTGAATATTTATTTTTTGAAGTACCATGTTAAATACTGAAGTATAATT  
TGGGGGAGTTATAAAGTTATGATAAACATTTCATCTGATTATTTTAAACAATAGTTGTGGTAGATAAACATACTGG  
AGGTGAGTAAAAATTGAATTCATATAGTAACATGCAGTCTGAAGTCCTAGTTACTTAATAGGTACTCAGCCTGGAG  
TGAAAATCCTGGGTACTGACTTTGAGAGGAGTGAGTGTGCATGTTGTCAAAGTTTCTGAACACAGTTTCACATAGC  
CTTATTAGCAAAAGTTTTAAGAAATGGCTCTATCAAAGAAGCAATTGCAGCTTTATTCAGAAATATAAAGTGGA  
ATTTATGTACATGTCATAAGTGGTACCCACTTCCCCTTTTTACTGTAGGGTGGATAACTCTTAGGATTTAACTCT  
TTGAATATTATCTCTTGAATAAAGCATGTGTTAATGTTAACAACCTACGTAATTTTGCCCTTTCAATGACTTA  
CAGTGGAGAGCCAGTACATCTTAACTACTGTTGTAGTGATGGTATCAACCTCATGGTTACTTAGCTCTGCATTTG  
TTGCTTTGTTTTTTTTTCCACTTCAAATCACAAAATAAGTAGATTTTGTTTTCTGAAAACCTCATAGCATTTGAAT  
ACAAAAAGTTGTGCCAGATTGTTTGCCCTAATTCAGTGTGTTTAACAAATATTTTCACTACACACTATGTATTAGG  
CACTGTGTGGAAGTGTTAAGGGGTAGACAAGATACCGAATAATCTCCACAAGTTTATTTGTGGTCTATAGTACT  
TTTGTAAGTGGGGTTACAAAAATTATAGAAATTTTTTCTTTGTTTCATATGCATATTCATGATTATAATTGGC  
TTTGTGTGTGATTAAATGTTTTCTTAAGATTTTACATTATAGAATACCTCAAAGAAGTTGTCTAAGGACTGGGA  
TAGAGAGTATGTTTCATAAAATTGTAGATGTTTAGAATTTTTAAAAACCTACAAATTAGTATATGATTGTTTTA  
TATAAGTAAGATAGGAGCAACACTTTAAATTATTTGTGGGAGAATACAGCATTAAAGGTGATTTTAAAAGAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1052**

MNRVNDPLIFIRDIKPGLKLNLVVFIVLEIGRVTKTKDGHEVRSCKVADKTGSITISVWDEIGGLIQPGDIIRLT  
RGYASMWKGLTLYTGRGGELQKIGDLGAVQAAAMRDSIHYYPGNDLHPDLEEPSSLGV

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**FIGURE 1053**

ATTCCCCAACCTGATAGCCCTCCGCGACGCATTACGCACCGCGGACAGCTGGAGAGGCCGAGGCGCTCTCGCTTT  
GATTTTCGGCGCCTCCGCCCTCGCGGGGAGAGATTGGCTGCGGCCGCGGGACGGGGTAGTGAGCGCGTCACTTCCT  
GCCGCTGCCAGGCGCGTCTCCCGCGCGCT**ATG**ACGGCCAGCGCACAGCCGCGCGGGCGGCCAGGAGTCGGA  
GTCGGAGTCGTGGTGACCAGCTGCAAGCATCCGCGTTGCGTCTCCTGGGGAAGAGGAAAGGCTCGGTTGGAGCT  
GGCAGTTTCCAACCTCCCTGGAGGTCATCTGGAGTTGCGGTGAAACCTGGGAAGAATGTGCTCAAAGGGAAACCTGG  
GAAGAAGCAGCTCTTCACCTGAAAAATGTTCACTTTGCCTCAGTTGTGAATTCTTTCATTGAGAAGGAGAATTAC  
CATTATGTTACTATATTAATGAAAGGAGAAGTGGATGTGACTCATGATTGAGAACCAAGAATGTAGAGCCTGAA  
AAAAATGAAAGTTGGGAGTGGGTTTCCTTGGGAAGAACTACCTCCCCTGGACCAGCTTTTCTGGGGACTGCGTTGT  
TTAAAGAACAAGGCTATGATCCATTTAAAGAAGATCTGAACCATCTGGTGGGATACAAAGGAAATCATCTC**TAG**

GTGGCCGAGAAGATTTGATTTTCTTTAAAAAGACAAGAATAAGGTCTGGTTAGGGAATGAAAAATGTATACATTT  
CGGAACAACCTCCATTTTATCTAAAAAGTTCTTGTGATTGCCAGTTTATTTGCAGTCTCTTAATGTATCCCCAC  
TCTTTCAGCCAGTACTTGAGAAAATTTTTCTGAAATATGTCAATTGAATTGTATTCCAGACACAGAATACATGATA  
AATACTGATATTATGGGTAATCTGCTTTCATATTTACCTATGATATTTACTGTGCAGTTTGTCACTACTAGCTT  
GCATGGAGTAGGATGCAGTCAAATTTGCCTTAGTGTCTGTTCAAATAGAGACCTGAATTCAAATATTGTAGTT  
TAGGTTCAAACAGAGTATGGCTGTTGCAAAATTTACCAAATTTGTTGATTACCTCTTTTATTAAAGAAATGTTGG  
GGAGAGGGTAATATATTGTGACAATTTTGAACCTTACAGGGAATAGGACAGGTCATTAGGGTGTATTTCCCAGG  
TTTCCAATTGAGAACTAAACCAAGAGAAGTGAGACAAACCATCTAATATCTGTATCATGCTATTAATAGGCTGT  
GATGTTGAGTTTCTCACTTACTCTTTCTGAGGTCCAGGGTCCTTATATGAAGAGATTCATATATATGAAGAGATT  
CGTCTAGAGCAGTGGTTGTCAAAGTGTGGTCTGGGGGGGCTCAAGAGCCTTCAAGGGTATTCTAGGTCAAAGC  
TGTTTTTATAACACTAAGACATTATTTCACTATTTATAGCTTTTCCTTTTTTTTATTTGAGAAGGAGTCTTGCTC  
TGTTGCCACATTGGAGTGCAGTGGCACGATCTCAGCTCATTGCAGCCTCCGCCACCTGGGTTCAGCAATTCTC  
CTACCTCAGCTTCCCGAGTAGCTGGGATTATAGGCACCCACCACACCTGGCTAATTTTGTATTTTATAGTGG  
AGACGGGGTTTCACCATGTTGGCCAGGCTGGTCTGGAACCTCCTGAGCTCAAGTGATCTGCCCATCTCAGCCTCCC  
AAAGTGCTGGGATTACAGGTATGAGCCACAACGCCCAGCCATCATTTATCTTTTCACTCATTTTTTTCATGAGTA  
TGCAGAGGAGTTTTCAAGAGGCTATCTGGTGTGATATTGTAATAGGCTGAATGCAAAAGCAGATACAAGATTCCA  
GCTTTCGTCTGTCTCAGACATTGAAGAGATTTGGAGAAATGTAAAGCAGCAGTACTCTTCTACTAATTTTTAT  
TGTTGGTTAGTTAGAAAAATGGTTATTTTTAGTGGGTTTTAATATGTGAAAAAATAAAATTAGCTATTTGCC



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**FIGURE 1054**

MTASAQPRGRRPGVGVGVVVTSCKHPRCVLLGKRKGSVGAGSFQLPGGHLEFGETWEECAQRETWEEAALHLKNV  
HFASVVNSFIEKENYHYVTILMKGEVDVTHDSEPKNVEPEKNESWEWVPWEELPPLDQLFWGLRCLKEQGYDPFK  
EDLNHLVGKGNHL

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**FIGURE 1055**

GCCCCCGCGCCCCGACCAGCCCGGCCTCGGGCAGCCACTCACCGGTGTCCCCGTCCGCGTCTTCTCTCCCCGG  
GTCCCCGGCC**ATG**GCGCTGAGTGAACCCATCCTGCCGTCTTCTCCACTTTCGCCAGCCCGTGCCGCGAGCGCGGC  
CTGCAGGAGCGCTGGCCGCGCGCCGAACCCGAGTCCGGCGGCACCGACGACGACCTCAACAGCGTGCTGGACTTC  
ATCCTGTCCATGGGGCTGGATGGCCTGGGCGCCGAGGCCGCCCGGAGCCGCCGCCGCCGCCGCCGCCCGCCTGCG  
TTCTATTACCCCGAACCCGGCGCGCCCCGCCCTACAGCGCCCCCGCGGTGGCCTGGTGTCTGAGCTGCTGCGA  
CCCGAGCTGGATGCGCCGCTGGGGCCCGCACTGCACGGCCGCTTCTGTCTGGCGCCGCCCGGCCGCTGGTCAAG  
GCCGAGCCCCCTGAAGCGGACGGCGGGCGGGCTACGGCTGCGCCCCGGGCTGACCCGTGGACCGCGCGGCCTC  
AAGCGCGAGGGCGCCCCGGGCGCGCGGCTTCGTGCATGCGAGGTCCCGGGGGCCGCCGCCGCCGCCGCCGAC  
ACACCGCCGCTCAGCCCCGACGGCCCCGCGCGCCTGCCCGCGCCCGGTCCGCGCGCCTCCTTCCCGCCGCCTTTC  
GGTGGCCCTGGTTTCGGCGCGCCCGGGCCCGGCCTGCATTACGCGCCGCTGCGCCCCAGCCTTCGGTCTCTTC  
GACGACGCGGCCCGCCGCCGCGCAGCCCTGGGCCTGGCGCCCCCGCCGCCCGCGGTCTCCTACGCGCCTGCG  
TCCCCGCTGGAGCTGCTGGAGGCCAAGCCAAAGCGCGGCCGCGCTCTTGGCCCCGAAACGCACCGCCACTCAC  
ACCTGCAGCTACGCGGGCTGCGGCAAGACCTACACCAAGAGTTCGCATCTGAAGGCGCATCTGCGCACGCACACA  
GGTGAGAAGCCCTACCACTGCAACTGGGACGGCTGCGGCTGGAAGTTTGCGCGCTCAGACGAGCTCACGCGCCAC  
TACCGAAAACACACGGGGCCACCGGCCATTCCAGTGCCATCTGTGCGATCGTGCCTTTTTCGCGCTCCGATCACCTG  
GCGCTGCACATGAAACGGCACATG**TAG**CCGGGACGCCCCCGCCACCTGCGGCGGGCCGTGGCGGGTCCCACGCG  
CCGGGCGCGGCCCCCTCCCAAACCTGTGACTGGTATTTATTGGACCCAGAGAACC GGCGCCGGGCACAGCGTGGCTA  
CAGAGGGTCTCCCTCGATGACGACGACGACGACGCCACCACCCAGCCCCGTCTGTGACTGAAGGCCCGGTGGG  
AAAAGACCACGATCCTCCTTGACGAGTTTTGTTTTTCAAATGGTGCAATAATTTAAGTGGCATCTTCTCTCCCA  
CCGGGTCTACACTAGAGGATCGAGGCTTGTGATGCCTTGTGAGAAATAAGGGCCTTAATTTGTACTGTCTGCGGC  
ATTTTTTATAATATTGTATATAGTGACTGACAAATATTGTATTACTGTACATAGAGAGACAGGTGGGCATTTTTG  
GGCTACCTGGTTCGTTTTTATAAGATTTTGCTGGGTGGTTTTTTTTTTAATTAAAAAGTTTTGCATCTTTT

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**FIGURE 1056**

MALSEPILPSFSTFASPCRERGLQERWPRAEPESSGGTDDDLNSVLDFILSMGLDGLGAEEAPEPPPPPPPPAFYY  
PEPGAPPPYSAPAGGLVSELLRPELDAPLGPAHGRFLLAPPGRLVKAEPPEADGGGGYGCA PGLTRGPRGLKRE  
GAPGPAASCMRGP GGRPPPPPDTPPLSPDGPAPLPAPGPRASFPPPFGGPGFGAPGPGLHYAPPAPPAFGLFDDA  
AAAAAALGLAPPAARGLLTPPASPLELLEAKPKRGRRSWPRKRTATHTCSYAGCGKTYTKSSHLKAHLRTHTEK  
PYHCNWDGCGWKFARSDELTRHYRKHTGHRPFQCHLCDRAFSRSDHLALHMKRHM

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**FIGURE 1057**

CGGAATTGGTGGGTTCTTGGTCTCACTGAGTTCTAGAATGAAGCTGCAGACCCTCGCAGTGAGTGTTACAGCTCT  
 TAAGGCTCTCTGACTGCCACCCCTGCCTGCCTGCCCCGGCCCTGCACAAC**ATG**CAGCCCTCCGGCCCTCGAGGGTCC  
 CGGCACGTTTGGTCGGTGGCCTCTGCTGAGTCTGCTGCTCCTGCTGCTGCTGCCAGCCTGTAACTGTGCCTA  
 CACCACGCCAGGCCCCCCCCAGAGCCCTCACCACGCTGGGCGCCCCCAGAGCCCACACCATGCCGGGCACCTACGC  
 TCCCTCGACCACACTCAGTAGTCCCAGCACCCAGGGCCTGCAAGAGCAGGCACGGGCCCTGATGCCGGGACTTCCC  
 GCTCGTGGACGGCCACAACGACCTGCCCCCTGGTCCTAAGGCAGGTTTACCAGAAAGGGCTACAGGATGTAACTT  
 GCGCAATTTAGCTACGGCCAGACCAGCCTGGACAGGCTTAGAGATGGCCTCGTGGGCGCCAGTTCTGGTCAGC  
 CTATGTGCCATGCCAGACCCAGGACCGGGATGCCCTGCGCCTCACCCTGGAGCAGATTGACCTCATACGCCGCAT  
 GTGTGCCTCCTATTCTGAGCTGGAGCTTGTGACCTCGGCTAAAGCTCTGAACGACACTCAGAAATTGGCCTGCCT  
 CATCGGTGTAGAGGGTGGCCACTCGCTGGACAATAGCCTCTCCATCTTACGTACCTTCTACATGCTGGGAGTGCG  
 CTACCTGACGCTCACCCACACCTGCAACACACCCTGGGCAGAGAGCTCCGCTAAGGGCGTCCACTCCTTCTACAA  
 CAACATCAGCGGGCTGACTGACTTTGGTGAGAAGGTGGTGGCAGAAATGAACCGCCTGGGCATGATGGTAGACTT  
 ATCCCATGTCTCAGATGCTGTGGCACGGCGGGCCCTGGAAGTGTACAGGCACCTGTGATCTTCTCCCACTCGGC  
 TGCCCCGGGTGTGTGCAACAGTGCTCGGAATGTTCTGATGACATCCTGCAGCTTCTGAAGAAGAACGGTGGCGT  
 CGTGATGGTGCTTTGTCCATGGGAGTAATACAGTGCAACCCATCAGCCAATGTGTCCACTGTGGCAGATCACTT  
 CGACCACATCAAGGCTGTCATTGGATCCAAGTTTCATCGGGATTGGTGGAGATTATGATGGGGCCGGCAAATCCC  
 TCAGGGGCTGGAAGACGTGTCCACATACCCGGTCCTGATAGAGGAGTTGCTGAGTCGTGGCTGGAGTGAGGAAGA  
 GCTTCAGGGTGTCTTCGTGGAAACCTGCTGCGGGTCTTCAGACAAGTGGAAAAGGTACAGGAAGAAAACAAATG  
 GCAAAGCCCCCTTGAGAGACAAGTTCCCGGATGAGCAGCTGAGCAGTTCCTGCCACTCCGACCTCTCACGTCTGCG  
 TCAGAGACAGAGTCTGACTTCAGGCCAGGAACCTCACTGAGATTCCCATACACTGGACAGCCAAGTTACCAGCCAA  
 GTGGTCACTCTCAGAGTCCTCCCCCAGTGGCCCCAGTCCTTGACAGTTGTGGCCACCTTCCCAGTCCTTATTCT  
 GTGGCTCT**TGA**TGACCCAGTTAGTCCTGCCAGATGTCACTGTAGCAAGCCACAGACACCCACAAAGTTCCCCTGT  
 TGTGCAGGCACAAATATTTCTTGAAATAAATGTTTTGGACATAGAAAAA

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**FIGURE 1058**

MQPSGLEPGTFRWPLLSLLLLLLLLLQPVTCAYTTPGPPRALTTLGAPRAHTMPGTYPSTTLSSPSTQGLQEQ  
ARALMRDFPLVDGHNDLPLVLRQVYQKGLQDVNLRNFSYGQTSLDRLRDGLVGAQFWSAYVPCQTQDRDALRLTL  
EQIDLIRRMCASYSLELVTSAKALNDTQKLACLIGVEGGHSLDNSLSILRTFYMLGVRYLTTLHTCNPWAESS  
AKGVHSFYNNISGLTDFGEKVVAEMNRLGMMVDLSHVSDAVARRALEVSQAPVIFSHSAARGVCNSARNVPDDIL  
QLLKNGGVVMVSLSMGVIQCNP SANVSTVADHFDHIKAVIGSKFIGIGGDYDGAGKFPQGLEDVSTYPVLIEEL  
LSRGWSEELQGVLRGNLLRVFRQVEKVQEEKWQSPLEDKFPDEQLSSSCHSDLSRLRQRQSLTSGQELTEIP I  
HWTAKLPAKWSVSESSPHMAPVLAVVATFPVLILWL

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**FIGURE 1059**

TATTTTGTGATGTGTTGAACCTCGATTAAGATTGCATTATGACATTCTTGAAGACCGAGTTCCATCAGGACTT  
ATTGTTGACTACCACAATCTGTTGTCTCAATGTGAGGAGAGTTACAGGAAATTTTAAATCTGAGAAGCAGTTTG  
TCAAATTGTAACCTGACTCCGAGCAGGAAAATATCTCC**ATGG**TGGAAGGGTTAAAAATTGTATTCGGAGATGGAA  
CAGTTGAAACAAAAGCTGAAACTCATTGAGAATCCTTTGTTGAGGTATGTGTTTGGTTATCAGAAGAATTCTAAC  
ATCCAAGCAAAGGGTGTCCGTTCCAGCGGTGAGAAGATCACTCATGTGGTCTCCTCCACCATGATGGCTGGTCTC  
CTGCGGTCCCTGCTTACGGACAGGCTTTGCCAGGAGCCTGGTGAGGAAGAAAGAGAAATTCAGTTCCATAGTGAT  
CCATTGTCTGCTATAAATGCCTGCTTCGAAGGTGACACTGTTATTGTTTGTCTGGCCATTATGTGGTACATGGC  
ACTTTCTCCATTGCTGACTCCATTGAGTTGGAAGGATATGGCCTACCAGATGACATTGTGATAGAAAAGAGGGGC  
AAAGGCGACACTTTTGTGGACTGCACTGGTGCTGATATTAATACTCAGGCATAAGATTGTTTCAGCATGATGCT  
GTAGAGGGAATCTTAATTGCTCACCGTGGTAAGACTACGCTGGAAAATGTGTGCTGCAGTGTGAGACGACCGGA  
GTCACAGTGCGGACATCAGCAGAGTTTCTAATGAAGAACTCGGATTTATATGGCGCCAAGGGTGTGGTATAGAA  
ATCTACCCTGGGAGTCAGTGCACCCTGAGTGACAATGGGATCCATCACTGCAAGGAAGGGATCCTCATTAAAGGAC  
TTCTTAGATGAACATTATGACATTCCCAAGATATCCATGGTGAATAATATAATACATAATAATGAAGGTTATGGT  
GTTGTCTTGGTGAAACCTACAATCTTCTCTGACCTGCAAGAAAATGTGAAAGATGGAAGTGAAGAAAATAAGCG  
CTTAAATTCAGACAAGTGGAGAGCCAGATGTGGCTGAAAGAGTGGATCTAGAAGAGCTGATTGAGTGTGCAACT  
GGTAAAATGGAGCTTTGTGCAAGAACTGACCTTCTGAGCAAGTTCGAGGGGAAATGTGAAATTGTAAATGAACATA  
ATTGCTGCCTCCACACAGAAAGGCCAGATAAAGAAGAAAAGGTTGAGTGAAGTGGGGATCACGCAAGCTGATGAC  
AACTTAATGTACAGGAGATGTTTGTGGGATTGTGGGAACCAAGTTCAGTGAAGTGGGAAAGGTAGTTTGGC  
ACATTTCTTTTCT**TG**ACTACAGTGATGTAAGTAGATAGCAAAATACTGGATTTTGCACATGCTGCCCTAAGAATCA  
CTGCTGCCATTGTAGTTTGTCTGTATTGTCTGTATTTTATATTTGATTATTTGGGCTTGAGTGAAAGGTAGATTTA  
TTTCCATTTGCAGGTGTTGCACATAAAACACTCCCTCTTTATAAGAAAAATCATAAATGCATATAAAATAGAAAA  
TATTTGGAGATTGCTTATCTGAAAGTCTTGCTTTCTTATACACATGGTTCTCTCATATTAAGCCTGGTGGTTACT  
TTTTAGTGTAATTACCTTTAGCACTTCAAAGACGAGGAAGTAAGGAAGGGAATGCAAGACTAGTGCATAAAAATG  
CAATAGGTGTCATATGTACAGCATTTCTTCTTAGAGTTGCCTTTTCATCCCAATTACAGTGAGTCTGATTTCCATC  
CTGTATTTGCATAATACTTGTCTTAAATAAAAGCTTTTATGATTGGGAATTTATCTGCCTAATCAGACTTATTA  
TTGAGACGTCAATGGGACGCATTTTCTGTTGAGCTATGCAGTCGTCAAAACAGCGATAGACAGCATAGGAGGTT  
TGAAGCAGAAATGAAATGTGTTATTTCAGAGCCAATGTTGTACATAGAGCATTTCCTACTATTGCTGAATGGGAATG  
ATTAAAAACAAGGTATTTTTCGGGCCAGGCGGTGGCTCACGCTTGTAATCGCAGCACTTTGGGAGGCTGAGGCAG  
GAGGATCACTTGAGCCCAGGAGTTCAAGACTAGCCTAGGCAACATAGTGAGACCTGTCTCTACTAAAAATAAAT  
TTAAAAAAATTAGCTGAGTGTGGTGGTGCATGCATGTAGTTCCAGCTACTCAGGAGGCTGAGGCTAGAGGATCC  
TTGAGCCCAGGAGGTTGAGGCTGCAGTGAGGTGTGATTGCGCCACTGCATTCCAGCTTGGGCGACAGAGCGAGAC  
CCAGTCTCAAAAAAAAAAAAAAAAAAGTATTTTCTTACC GTTACAGTATTCTGATTATATTACTGACACAGTCAA  
AATGATTAAGTGTACAACCTGTATCTGCTGGGTGTTCTTGTATCATATTGTAAACAGCTTTAAAAATATTTAT  
ATTTTAAAACTGTATGTGACATTAATATGCCTAATGATTAAAATTATAGTGATGAAATAAAAAAAAAAAAAAAAAA  
AAAAA

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**FIGURE 1060**

MVEGLKLYSEMEQLKQKLKLIENPLLRVYFGYQKNSNIQAKGVRSSGQKITHVVSSTMMAGLLRSLLTDRLCQEP  
GEEEREIQFHS DPLSAINACFEGDTVIVCPGHYVVHGTFSIADSIIELEGYGLPDDIVIEKRGKGDTFVDCTGADI  
KISGIRFVQHDAVEGILIAHRGKTTLENCVLQCETTGVTVRTSAEFLMKNSDLYGAKGAGIEIYPGSQCTLSDNG  
IHHCKEGILIKDFLDEHYDIPKISMVNNIIHNNEGYGVVLVKPTIFSDLQENAEDGTEENKALKIQTSGE PDVAE  
RVDLEELIECATGKMELCARTDPSEQVEGNCEIVNELIAASTQKGQIKKKRLSELGITQADDNLMSQEMFVGIVG  
NQFKWNGKGSFGTFLF

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**FIGURE 1061A**

TTGGGAAACCCCTACCTGTCTGTACCTGTAGGTCTTTTCTCTGGGGTCTGGAAGAAGAATCCTTCAATATCTTGC  
CTTCTGGTAATCTGAGAGCAGGGCGAGAAAAGGAAGATCAGAGTTCCACCCTTAAATCTGTAGGTTTTACTCCC  
CCACTCTCCTTTGCAGTCCCGTGGAGTCTCCATCTGAGCCCTTTCTAGTCCAGGCATCCCGATGTTGGTGGATG  
GCCCATCTGAGCGGCCAGCCCTGTGCTTCTTGCTGTTGGCTGTGGCAATGTCTTTCTTCGGCTCAGCTCTATCCA  
TAGATGAAACACGGGCGCATCTGTTGTTGAAAGAAAAGATGATGCGGCTCGGGGGGCGGCTGGTGCTGAACACCA  
AGGAGGAGCTGGCCAATGAGAGGCTCATGACGCTCAAAATCGCTGAGATGAAGGAGGCCATGAGGACCCTGATAT  
TCCCACCCAGCATGCACTTTTTCCAGGCCAAGCATCTCATTGAGAGAAGTCAAGTGTTTAATATTCTAAGGATGA  
TGCCAAAAGGGGCTGCCTTGCACCTCCATGACATTGGCATCGTGACTATGGACTGGCTGGTGAGGAATGTCACCT  
ACAGGCCTCACTGCCACATCTGTTTACCCCCAAGGGGGATCATGCAGTTCAGATTTGCTCACCCAACTCCCCGTC  
CATCAGAAAAATGTTCCAAGTGGATTCTGCTGGAGGATTATCGGAAGCGGGTGCAGAACGTCAGTGGTTGATG  
ACAGCTTGCTGAGGAATTTCACTCTGGTGACCCAGCACCCGGAGGTGATTTACACAAACCAAAATGTTGTCTGGT  
CGAAATTTGAAACCATCTTCTTACCATCTCTGGTCTCATCCATTACGCACCAGTGTTAGAGACTATGTCTTCC  
GGAGCATGCAGGAGTTCTACGAGGACAACGTGCTCTACATGGAGATCAGAGCCAGGCTGCTGCCGGTGTATGAGC  
TCAGTGGAGAGCACCATGACGAAGAGTGGTCAGTGAAGACTTACCAGGAAGTAGCTCAGAAGTTTGTGGAAACTC  
ACCCTGAGTTTATTGGAATCAAATCATTTATTTCGGATCACAGATCCAAAGATGTGGCTGTATCGCAGAATCCA  
TCCGAATGGCCATGGGGCTCCGAATCAAGTTCCCCACGGTGGTGGCAGGTTTGACCTGGTGGGGCATGAGGACA  
CTGGCCACTCCTTGCGTGACTACAAGGAAGCTCTGATGATCCCCGCCAAGGATGGCGTTAAGCTGCCTTACTTCT  
TCCACGCCGAGAAACAGACTGGCAGGGTACTTCCATAGACAGGAACATTCTGGATGCTCTGATGCTGAACACTA  
CCAGAATCGGCCATGGATTTGCTTTGAGCAAACACCCCGCAGTCAGGACTTACTCCTGGAAAAAGGACATCCCCA  
TAGAAGTCTGTCCCATCTCTAACCAGGTGCTGAAACTGGTGTCTGACTTGAGGAACCACCCTGTAGCCACTCTGA  
TGGCCACTGGGCACCCCATGGTGATCAGCTCTGATGACCCAGCTATGTTTGGTGCCAAAGGCTTGTCTATGATT  
TCTATGAGGTCTTCATGGGCATTGGGGGATGAAGGCTGACCTGAGGACCCTCAAACAGCTGGCCATGAACCTCTA  
TCAAGTACAGTACCCTGTTGGAGAGTGAGAAAAATACTTTTCATGGAAATCTGGAAGAAGAGATGGGATAAGTTCA  
TAGCAGATGTGGCTACAAAGTGAGGAGAAGCTAGCCAGCCCTCTACAAGCTGTCTTCTTGACACGCTGTCACTT  
CCTCTCACTCGTTCTTGAATCAGCTCCATGTGCCCATGAAATCAATGGCCTCTGTATGGAGCGACCCTGTGAGAA  
GCACTTGGCTGGCTGAGCAAATTCATCCTCTGGAAATATTCTCTCTCAGCCACAGTGACATTGACCCTCTTGGTT  
TTCTCCTCTCTCTGGCCATTTCTTCCAGTTTCCCTATTTTCAGAGTCTTCTCCTCTCTCTGATCTCTGTGCTGTTT  
CCTCAGGACTCAGTCTTGGGCTCTCTTCTATTCTGGTCTCTTTATTTTTTTATTTTTTGATTTTTTCGAGATGGA  
GTTTTGCTCTTGTGCCCAGGCTGGAGTACAATGGTGCGATCTCAGCTCAGTGCAACCTCCGCCACCCGGGTTCA  
GGCAATTCTCTTGATCAGCCTCCCGAGTAGTTGGAATTATAGGCATGTGCCACCACACCCAGCTGATTTTTTGCA  
TTTTTAGTAGAGACAGGTTTTACCATGTTGGCGAGCTGGTATCCAACCTTTGACCTCAGGTGATCCACTCGCCC  
CTTGGCTCCCAAAGTGCTGGAATTACAGGCGTTAGCCACCATGCCTGGCCTATTCTGGTCTCTTTAACTCTCTCC  
TCTTTATTTCTCTCTCTCTGTACACTTTTCTGGGTGGTCTCATCCATTCTTTGCTTTTTTCATACCATTTA  
TTTGTTAATGATTCCACATTTATTTATGCACCTGGAGAGCTCACAGGAATCTCAGAACTGATGAGGTACAATT  
CTGAACCCCTCAGTCTCTTCCCTTTAAACCTTTCTTTTTCTCTACTTTAATTTTTCTAAAGAGTGTCTTGCTATGT  
TGCCAGGCTGGTCTCCAACCTCAAGTGATCCTCTGCGCAGTCTCCCGAAGTGCTGGGATTACTGACATGAGCC  
ACCACACTCAGCCCTTTAAACCTTTCCCTGGCCTTTCCCATAGCTGGTGAAGGACACCTCCATCCATTCCACGCA  
GTTGCTCAAAGCAGAAATTTTCAGTGCAAGTCTTGATGCTGCGCGTCCCCCACTCCCTACATCAGAACGCATCC  
CTCATCTGGACTCCAGCGGTGGCTTCTTGATGCTGCGCGGTCCCCCACTCCCTACATCAGAATGCATCCCGCATC  
CAGACTCCAGCGGTGGTGCTCTACCTGCACGCTGTTGCCAAGTCCAAGCTACCATACTCTGCCTGAGCTATGAC  
AACAGCCTCCTCACTGATCTCCCCTTTCTTCCCTTTGCTCCTCCAGCTCATTTTTACAGTGTAGAATGACATT  
TTGTTTGTGTTGTTTTGTTTTGTTTTGAGATGGAGTCTCGTTCTGTTGCCCAGGGTGGAGTGCAGCGGTGCGATCTC  
GGCTCACTGCAACTTCCACTCCCGGGTTCAAGCGGATTCTCGTGCCCTCAGCCTCCTGAGTAGCTGGGATTACAGG  
CATGCACCACCATGCCCAGGATAATTTTTGTATTTTTAGTAGAGATGGGGTTTCACTATGTTGGCCAGGCTGGTCT  
CGAACACCTGACTTCGTGGTCCACCCGCTTCGGCCTCCCAAAGCACTGGGATTACAGGCGTGAGCCACCCGGCC  
TGGCCTAGAATGACTTTTAAAAGATCAAATTAATCAGGTCACCTTTGCTTACAACGCAGTGCCTTTAGAGGT  
ACACCCCATGTCTCCACAGGGCATAACAGCATCCGATTTAATCTGGATCCATTCGGGCGCTTCTCTCCAGTCAC  
CCAGAGGGCCCCAACCCCGCGGCCCTTTCTTCTCAAATGTCTCGGCTCTATACCGTGCCTGGGTCTTTTCTC



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**FIGURE 1061B**

TTTCTCTCTGCCTGGAACATTCCCTTCTTTCCCTTTTGTCTTGCCCACTCCTGTTTACCCTTCAAGTTTCAAGTT  
CATGTCACCTGTCTCAGAGAGGTTTTCTGTGCTCGCCCTGTTTCTCTCAGGAAGCCTTGCTCTTTTCCATCATGC  
CTCTAATCACAGCTTATAATCGGATATTTATTTCTGTGTCTACAGTCTTGCCCTGCCAGACTGTAAGCCCCATGT  
GGGCAGGCGCTCATGATTGTTTCTGATTGTTTACGCATGCTGCTAACCAGAGCCTGGGCCCCAAGCTAGTTAG  
TACTCAATAACAATGCATTGAAAAAAAAAAAAAAAAAXTA

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**FIGURE 1062**

MLVDGPSERPALCFLLAVAMSFSGSALSIDETRAHLLLKEKMMRLGGRLVLNTKEELANERLMTLKIAEMKEAM  
RTLIFPPSMHFFQAKHLIERSQVFNILRMMPKGAALHLHDIGIVTMDWLVRNVTYRPHCHICFTPRGIMQFRFAH  
PTPRPSEKCSKWILLEDYRKRQNVNTEFDDSLRNFTLVTQHPEVIYTNQNVVWSKFETIFFTISGLIHYAPVFR  
DYVFRSMQEFYEDNVLYMEIRARLLPVYELSGEHHDEEWSVKTYQEVAKFVETHPEFIGIKIYSDHRSKDVAV  
IAESIRMAMGLRIKFPTVVAGFDLVGHEDTGHSLRDYKEALMIPAKDGVKLPYFFHAGETDWQGTSIDRNILDAL  
MLNTTRIGHGFALSKHPAVRTYSWKDIPIEVCPISNQVLKLVSDLRNHPVATLMATGHMPVISSDDPAMFGAKG  
LSYDFYEVFMGIGGMKADLRTLKQLAMNSIKYSTLLESEKNTFMEIWKKRWDKFIADVATK

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**FIGURE 1063**

CCAAGCTCCAGCTGTTTGTCAAGGCGAGTGAGGACGGGGAGAGCGTGGGTCACTGCCCCTCCTGCCAGCGGTCTT  
CATGGTCCCTGCTCCTCAAGGGCGTACCTTTACCCCTCACCACGGTGGACACGCGCAGGTCCCCGGACGTGCTGAA  
GGACTTCGCCCCCGGCTCGCAGCTGCCCATCCTGCTCTATGACAGCGACGCCAAGACAGACACGCTGCAGATCGA  
GGACTTTCCTGGAGGAGACGCTGGGGCCGCCCCGACTTCCCCAGCCTGGCGCCTCGTTACAGGGAGTCCAACACCGC  
CGGCAACGACGTTTTTCCACAAGTTCTCCGCGTTTCATCAAGAACCCGGTGCCCGCGCAGGACGAAGCCCTGTACCA  
GCAGCTGCTGCGCGCCCTCGCCAGGCTGGACAGCTACCTGCGCGCGCCCTGGAGCACGAGCTGGCGGGGGAGCC  
GCAGCTGCGCGAGTCCCGCCGCGCTTCCTGGACGGCGACAGGCTCACGCTGGCCGACTGCAGCCTCCTGCCCAA  
GCTGCACATCGTCGACACGGTGTGCGCGCACTTCCGCCAGGCGCCCATCCCCGCGGAGCTGCGCGGCGTACGCCG  
CTACCTGGACAGCGCGATGCAGGAGAAAGAGTTCAAATACACGTGTCCGCACAGCGCCGAGATCCTGGCGGCCTA  
CCGGCCCCGCGTGACCCCCGCTAGCGCCCCACCCCGCGTCTGTGCCCCAATAAAGGCATCTTTGTGGGAAAAA  
AA

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**FIGURE 1064**

MVLLKGVPTLTITVDTRRSPDVLKDFAPGSQLPILLYDSDAKTDTLQIEDFLEETLGPPDFPSLAPRYRESNTA  
GNDVFHKFSAFIKNPVPAQDEALYQQLRLARLDSYLRAPLEHELAGEPQLRESRRRFLDGDRLTLADCSLLPK  
LHIVDTVCAHFRQAPIPAELRGVRRYLD SAMQEKEFKYTCPHSAEILAAAYRPAVHPR

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**FIGURE 1065**

GGCACGAGGCACCTCGCTCGCAGCCTCCCCAGCGCAGCAGCCCGGCTGTGGGCCTGCGGCAGCCGGGTCTTCCTG  
GTCCCCACCTCCTGGGGCCGACGGGCGGCAGGAAGGGGCTCGGCGGGACGCGCCGTGAGGACCTGAGGAGGAAC  
AACGGAACGCGTTTCGGAACGGCCTGGACTCCCGAGACTCACCCGACTCGTGGCCACACCGGGAGAACTGAAGCGG  
CAGTAGCCGGCGGAGACGCCCCGACCCGAAGGCCGGCTGCTAGGGAGCAGACAGCTGAACCGCTTGCCAGACGCCG  
AAACCCAGTGACGCCCTCCACCGCTCCACCGTGCTCCCGGCTCCCCGCCCGCCGCGGGCCCCAAGGCGC  
ATGCGCCGCTGTCTGGAGGGGCCCATTTCGTCCGTCTGTGGGGGAGGCACAGTGAGTCCACTGGGGCACGGC  
AGCGTCTAAGCCACAAGCCGAGCACATAAGCCAGGTCCTAACGGAGCCTATGTGTAAGTCCACTACTGGTGCAAG  
GTTGCACACTTCTAAGAAGAGCGGCGTGGGGGGCTCGGCGACCTTCGCTTCAGTCGCTCCCCGTGCAGTCCCCCT  
GTGCCCCAAGACACAGCCTGATGCTTGTGCTCCGGTGGGCGGAGCTTGGAGGCGGCGGGAACGCAATTGGTGGCT  
TTGAAGGCGCGGCGAGCGGGAACAGCTCTTGAGGAGTGAGACTGCAGGAGATGTGGGCCGTGCCAAAGAGATGGA  
TGAGACTGTTGCTGAGTTCATCAAGAGGACCATCTTGAAAATCCCCATGAATGAACTGACAACAATCCTGAAGGC  
CTGGGATTTTTTGTCTGAAAATCAACTGCAGACTGTAAATTTCCGACAGAGAAAGGAATCTGTAGTTCAGCACTT  
GATCCATCTGTGTGAGGAAAAGCGTGCAAGTATCAGTGATGCTGCCCTGTTAGACATCATTTATATGCAATTTCA  
TCAGCACCAGAAAGTTTGGGATGTTTTTCAGATGAGTAAAGGACCAGGTGAAGATGTTGACCTTTTTGATATGAA  
ACAATTTAAAAATTCGTTCAAGAAAATTCTTCAGAGAGCATTAAAAAATGTGACAGTCAGCTTCAGAGAACTGA  
GGAGAATGCAGTCTGGATTTCGAATTGCCTGGGGAACACAGTACACAAAGCCAAACCAGTACAAACCTACCTACGT  
GGTGTAATACTCCAGACTCCGTACGCCTTCACGTCTCCTCCATGCTGAGGCGCAATACACCGCTTCTGGGTCA  
GGAGTTAGAAGCTACTGGGAAAATCTACCTCCGACAAGAGGAGATCATTTTAGATATTACCGAAATGAAGAAAGC  
TTGCAATTAGTGAACATGAAAGGAAAATAAAAAATTCCTCACAGTCAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1066**

MDETVAEFIKRTILKIPMNELTTILKAWDFLSENQLQTVNFRQRKESVVQHLLHLCEEKRASISDAALLDIIYMQ  
FHQHQKVWVDFQMSKGPGEDVDLFDKQFKNSFKKILQALKNVTVSFRETEENAVWIRIAWGTQYTKPNQYKPT  
YVVYYSQTPYAFTSSSMLRRNTPLLQGELEATGKIYLRQEEIILDITEMKKACN

GTTTTGTGTCAGGAACAGACGCCCTCCCGTCTTTGTCTTGGCGGTGAGCACCCAGGGCTAAGCTTTTGAACACTTTC  
TTTGTGTTTGGATTACAGCCAGGCAATGCATATTTGCTTTTCATTTCTTCTTGAGCTTGAGGAGCTCCTGGGTGCA  
AATCTTTGGAAAATGAGGATCTCTGAGCCTTTCCAGGCCAGCTCTTTGTTTTGTAGCAGACAATTGAGGCTTTGAA  
AAGGAAAGTGGGTGGGGGCACCCACAGGTGGCCCTCATCACCCAATTGCCAGTGCCTGCAGGCTGCTTCAGCAG  
AGGCCCAGAGTCAAAGAGGACTTAAACCAGCTGTCTGTTTCTCCCTTAGCTTCTGTGTATGAGAGAAACGACTTC  
TGTTTTTCAAAGTAAGAACAAGGAGGAATTTGTTTCTAAAAGAACATTAAAACACAGGCTCGTGGTCTAAAAGCA  
**AATG**GTTCAGCAGGATGTTTCAGGGCCTTAAAGCACAGTCAGCAGGACTCAGCATCTCCAGCACCTGCTCTCCGG  
TTGTATGGTAACATCATCCCCAACCCAACCACTTGTCAGCCGAGAGACAGCAATCATAAGGAGGGACCTCGG  
TTTCCCCCGAGGATCCTGGGCTTCCTTTCTGAAACGCTTGCTTCTGAGCTCAGCAACCAGGAACACCAGGCCAGC  
CCATCCCCAGCACCTCTGTGGAGATGAGGGACAAAGTCTACAGTCCCTCTTCTGTCTGATGAGAAAGGGAGG  
GAAGAAAACATACCCCGAGCGCCTGCAATATGGTCATGACACTTTCAAAAGCCTGTGCTATGGAGTCATGATCA  
GAAACCAGAGTGTGGAGAGGGTCAGCAGCCTGCCTCAGAGCAGCCAGCTAGGCGGGGAGTGGTAAATTTGGGACT  
TGTACCCAGGCATGACTGGCTCCGAGCCCAAGTGTCTCCACTCTATGGAATGTTCCCTGGGCCTCAGTTGCTTTCT  
TTCTTTTGACAGGCCGCGGGCTGCTGCCACTCTGGCAGCTGGTGAGTT**TAG**CTGGAGGGCAACATTCCAAAGCAGGG  
GCAGCATGCTGCTTTCTCTCTGTGCCCACTCCTGCGGGGAAGTCCGTTGACTCCCACCGCTGAAGGGAGCTGGCA  
ACACCAGGATGAGGTCCCAGGGGACGGGAGCAGGTACCCACTGTCTGTCTACCTTCCCCTGGAAGACAGGAC  
AGGCCAGCCCTTGCGGGGGCAGGCAGAGGACAGAGTTGGCTTTGCGCGGTCTCTGCCTGCTGAGCAGTTCCAATT  
CCTCTCATGGGAGAAACAAGGAGGCAGTCGCTTGTGCATGTTCCAGAAGTTTTACTGGGGAGGAGGAAGCGGACA  
GAGGAAGCTGTGTGTGCATGTGAAGGGGTGGGCAGGGTGGGAGGGATGCACGCGTATGTGAGCATAGCATGTGTG  
AGTACTACACACATCTCCATGCAGAAGCACAACCTGGGCAGCCCTGGCTTCCAGCTCTGGGCTTCAGCACAAACAGA  
CACCAGCCTGTGGTCTCTCAGAAGCCAGGGAGACCACATCGGGCTCAGGACGTTTTACCCAAAGTCCAGAGTTTT  
TATGCCTCTCCCTGGCATTCTCCATAAAGAAGGGAAGGTGAGATGACCCCTTAGATCTGTGTCTATCTGGGAATTT  
CCTTGGGCTGGTTTAGACACGATGCCCTCTTTTTCTCAGGATAGCAGATAACCTGCTTTGAAAGAGGGCTTAATT  
CTGTGGGTCTCTAAATTTTCTCCTTTCTCTCTCTCTTTCTGTGTGTGTGTGTTGGGAAAATGGCAAGTTTCCAATA  
CCAGCTTTGGAGGAACGATTACGTTTTCCCTCCAATTTCAAGTCCGAAAGACCAGAGCCCTCATTCCAAAGCCCC  
CCACCCAGATGGATTTTTTCGTTTCATTTGTCTATCCGTCCTCAGGAGGGCCCCATGTCTCCTCAGAACCCATCC  
TGGAGGCAGCAGGTGCGGTAGAGTGAGTTGGCCTGCTCATGACCTCCACCCCTGAGATTGTGAACAAGGATGTC  
TGGGGCGATGCTGAGAATGTTTTTGAAGCTGCTCCCAGATGACGCTGATGATCACACCAGATTGAGTGCTGCGAT  
CGCCTTGAGTCCAGCCTCTGCATAAACGAGGTTCTCATAAACAAGTTCACTCTACCCTAAGCTAAGTCTATGTGA  
GCAAACCCACTTCATCCTTTGTACCTGGAGACCTGGTTACACTAACCTGATACTGACCTGTTCATGTAGCTGGAA  
TGGTGTGTTTTCATGCAGTGTGGACCAAGCAATGGCATGGGGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGTGT  
TGTTTGTGTATGCGTTACACTTGTGTGTGTATATGTGCATGTAGATGCTGCATAAATGATTTTTGATGTCAAAG  
ACAAACACATTCCATTGTTTTAAATATTCTATTATGTAAACAATACGCAGAGGGACCATACTACTCTTGTCTATA  
TTATTTGTGATGGTAAAACATGCATTTGCAATAAATTAAGCTTTCTGGGAAGGCAAGCAGTATTGGAGCCAAACG  
ACTGTCTCGGAACATGTGTGTGTTATCTCGGTTTCATATCAAGTCCAAAGCTAATGGAGCCTTCCCCGCCATCCAG  
GGAGGAACACCAGGACCCCCGAGTTTTCTTCTTAGTGCTATATTTTAAAGTTGCATTGACGTTTTCTCCCTTCC  
TTTTGTGCAAGTTGGAAGTAGCAGTGTTCTAAAAGATGGTTTTGACGTTTTTGTCTGTTGTTTTATGTTTTTAAAAA  
TGTATCTGCTTTGTGTTTGGAAAATAAAAAATCTCTATTTTGGTCTATGAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1068**

MVQQDVQGLKAQSAGLSISQHLLSGCHGNIIPNPTTLSSRETAIIRRD LGFPRGSWASFLKRLLSSATRNRPA  
HPQHLCGDEGQSPTVPLPVLMRKGGKKTYP ERLQYGHDTFKKPVLWSDQKPECGEGQQPASEQPARRGVVNLGL  
VPRHDWLRACSTLWNVPWASVAFLSFAGRLLPLWQLVS



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**FIGURE 1069**

GCCGCGGAGAAGGAGCCGGACCCCTTGGGCGGAGCGCCCAATGTGTGGTCCCTCACGCCGTCCCGCACCTTGCTT  
TTTAGGGTTCTTTTTCCGCTTTCTGAGCCCTTTTATACCTTACGTTTAGAAGGGGAAAAATCATCCTCCACACCT  
TCTCCCCGACTTTTTGCCTTTTTGTCTTGAAGTTACCCAAAGGCCTGTGTATTGTTCTCAATGGTCCCAAGAAT  
TACTCTAATATAGTTGTTTTCTGAGGGAGGATGGATGGAGATAACTATCCTGATCCCAATGTCACCTTTTTAAGG  
CATTTCGCTTCAAGAGACAAGCAGTTTAGAATCAGGCAGAACTGGATTGCAAAATTTATGGGCAGACCGAGAAAAAT  
GCTGCTGTGAAGACCCAATTAAAGCTTTCACATAAATGAAGCTACAGCTATCATGATTTAGTGCCCCCAAAGGA  
AGAACTTCAGTGGAACAAGAAAGGACATTTCTGGGGGTAGTAGAATGCTTGAGGCCTGGAATTTAAACCTGAGCCA  
CTATCTGAAGGTTTAATATATCTTTGCCAAGTCCAAGGGTACAAAGATTTTCTCCTGTGTTTTCTTCTAGAAGTT  
TTATCATTTGATAGTCTGTGATCCATTTCAAGTTGATTTGCTATCTGGTGTGAGCTATTAAATAATAGAAGAAAA  
TGGAATTGAATATGATGTCAGC**ATG**GAACAATCTAATGATTTCATTAAGAGTCAACCATAATGACGGTGAAGAGTC  
AAAAACCAGTGCTCAAGTATTTGAGCATCTAATCTGTATGGACTCCAGGGATTCTTCCTTTGGACAAAATGATTC  
TCCTACAGTTTTTGCCCATCACTACTCGTGAAGCAAATAATTCACTCATATCACAGAATATACCAGGGCCCCCTGAC  
TCAGACACAGACTCTTTCTGCAGAGCAATTCCATCTAGTGGACCAAAATGGGCAGGCTATTCAATATGAACCTTCA  
GTCATTGGGGGAATCCAAATGCACAAATGATGATCGTTGCCAGCCCCAACAGAAAAATGGACAGGTACTTCGTGTAAT  
TCCACCTACCCAGACAGGAATGGCACAAGTGATTATACCTCAGGGGCAACTTGTGGATGTGAATAGTCCTCGGGA  
TGTCCCTGAAGAGAAAACCCAGTAACAGAACTTACCAACTGTAAGAGTGGATACTCTAGCAGACAATACCAGCAA  
TTACATTCTTCATCCTCAAACATCCTTCCATTGCCCAAAAAGTCAGTGACCGGAATGCTGGAAGAACCCCTTCT  
GGGGCCTCTTCAGCCACTTTCTTCTAATACACCTATATGGGCCTGCCGTCTTAGGAGCTGTGAGAAAATTGGAGA  
TTCATACCGTGGCTACTGTGTAAGTGAGACTGAATTAGAAAGTGTCTAACATTTACAAGCAGCAAACACAGAG  
TGTTTGGGGGACCCGTCAGTCTCCAAGCCAGCCAAGCCTGCTACACGCTTGATGTGGAATCCAGTATGTTCC  
ATATGATGGAATCCCATTGTTAATGCAGGGAGTAGAGCTGTGGTAATGGAGTGTGAGTATGGGCCAAGAAGAAA  
AGGTTTCCAGTTAAAAAAGTCAGTGAGCAGGAAAGCAGGTCTTGTGAGCTCTACAAAGCCACTTGTCCAGCTCG  
GATTTACATTAAAAAAGGTACAGAAGTTTCTGAATATAGAGTTCTACAGACCCCAAAATTGACAAGAAAATTAT  
CAGAATGGAGCAGGAGAAAGCTTTTAACATGCTAAAGAAGAACTTGGTAGATGCTGGTGGTGTCTTAGGTGGTA  
TGTACAGTTACCTACACAGCAAGCTCATCAGTATCATGAATTAGAGACTCCCTGCCTCACTTTGTACCTTCTCC  
TTTTCTGTGTCTTCTCTTGAAGAAGAGGAACTGCAGTTAGAGATGAGAATTGTGCATTACCCTCACGTTTACA  
TCCTCAAGTAGCACATAAGATTCAAGAATTAGTATCACAGGGAATAGAACAAAGTGATGCAGTAAGGAAACAGCT  
AAGAAAATTTGTGGAAAGGGAACTGTTCAAACCCGATGAGGTACCTGAAAGACATAATTTATCTTTTTTTTCCAAC  
TGTAATGATATAAAAAATCACATCCATGAGGTACAGAAATCCTTGAGAAATGGAGATACGGTATATAACTCAGA  
GATTATTCCAGCAACGCTTCAATGGACTACAGACAGTGGGAATATTCTCAAAGAGACCATGACAGTTACATTTGC  
AGAAGGAAATTCACCAGGAGAATCAATTACCACCAAAGTGGAAACAAATCAGACCAGGGGTTCTTTGTCTCCTGA  
GCCAACCCACTTGCTCTCCTCACTCTCCTCATTTTCAGCCCAAAATATTTACACAACCTACAGGGTTTGCAGTTACA  
ACCAAGGTACACCTCTCCTGATGAATCACCAGCTGTGGTATCAGTAAATAACCAGCCGTCCTCTAGTCCTTCAGG  
ACTTCTGGATACAATAGGAAGTGCTGTAATGAATAATAATTCTCTACTGCTTGGTCAAAGTCATAGCCTTCAAAG  
AGATACATGCTTAACCCAAAACAATAGTACTGCCTCCACCATGGGTAACTTCCAGAACCAGATCAAAATCTAGT  
TGCAATGGACGAGCTGGTAGAAGTTGGAGATGTTGAGGATACAGGGAATCTGGAAGGAACTGTTTCATCGGATTCT  
GTTGGGAGATGTGCAGACTATTCCAATACAGATTATAGACAACCACTCAGCTCTTATTGAAGAAAATCCAGAAAG  
TACCATTTCTGTGAGCCAAGTTAAACAAGAACCCAAAGAACCAGCATTGTCTATGGAAGCAAAAACTGTGGACT  
**ATAAG**AAATTATCTGTACATAAAATTATTGAAGCTTTTCAGAAATTTACAACCTCTGGTGACTTCTGATGTCTTAGA  
AAGGAAGGTGAATATAGTCAAAGCGTGGCATTGAGATAATTGGACTGAAGACCAGTTTGATGAGAAGCTTTTATT  
TAAACTGATATATTTGTTGCCAGTTCCATATTTTTACCTTCCTTAAGAGATGTTTTACTCTTCTTATTTTGTAT  
AATTTTTATGCTCTTTGATTATCTAATAAGGCCAGTATTTCAAAGCTGTTCTGAATTTATCCACAGTAATATAG  
TCTGAACACAAATAGTTTACTTAACCTATCCTTGGAATATTCAATTTTGGTTATTACAAAACAGAAAAGAACAA  
CAGCAACAAAACATTGTGTGAATATATGTTTGTATGTGTGTATGTATATCATGAATTTTTTTTTTAAGTTCTGA  
AAAAGAAGCTGTTCTCTCCTTAAAGTTGTGAAGAAATTGTTAATTGCCAGACAGGTAAGAAAATGTTTATAATCT  
ATCTCATTAAAGAAAGATGAAGTATTAGATTTTACATCATAACACAAAGTCCAGCAGCTACATC

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**FIGURE 1070**

MEQSNDSLVRVNHNDGEESKTSAQVFEHLICMDSRDSSFGQNDSP TVLPITTREANNLSLISQNIPGPLTQTQTL  
EQFHLVDQNGQAIQYELQSLGESNAQMMIVASPTENGQVLRVIPPTQTGMAQVIIPQGQLVDVNSPRDVPEEKPS  
NRNLPTVRVDLADNTSNYILHPQTSFPLPKKSVTGMLEEP LLGPLQLSSNTPIWACRLRSCEKIGDSYRGYCV  
SETELESVLTFHKQQTQSVWGTRQSPSPAKPATRLMWKSQYVPYDGIPFVNAGSRVVMQCQYGP RRKGFQLKKV  
SEQESRSCQLYKATCPARIYIKKVQKFPEYRVPTDPKIDKKIIRMEQEKA FNMLKKNLVDAGGVLRWYVQLPTQQ  
AHQYHELETPCLTSLSPFPVSSLEEEETAVRDENCALPSRLHPQVAHKIQELVSQGIEQVYAVRKQLRK FVERE  
LFKPDEVPERHNLSFFPTVNDIKNHIHEVQKSLRNGDTVYNSEIIPATLQWTTDSGNILKETMTVTFAEGNSPGE  
SITTKVETNQTRGSLSPEPTHLLSSLSSFQPKIFTQLQGLQLQPRYTSPDESPAVSVN NQPSSSPSGLLDTIGS  
AVMNNNSLLLQSHSLQRDTCLTQNNSTASTMGNLPEPDQNLVAMDELVEVG DVEDTGNLEGTVHRILLGDVQTI  
PIQIIDNHSALIEENPESTISVSQVKQEPKEPALSM EAKNCGL

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**FIGURE 1071**

AGTGTGGTTTTAGTTTTTCCTAAGAAGTGGCGTGGTTTGGGGCTTTATATCCGGGAGGAGCATATGTACGCAAAT  
CCTGGGGCGTTTTGCAAACCCGGATCCGGGGCGTCTGGCCCCATGCCCGCCGGGCGTTTTGAGGGCTACTGCCACG  
CAGCGTTTTCTGGAGCCTGCCGGCTGGTGCCCTGGTGGCCTTTATCTCTGTCCCCCTTTGTCTCTTTATCTCAGG  
CTCTCCAGGAGGCCGGGGGGGCCACTCCGCCTATCGCTCCCCCTCGGCTACGCTGCCACTCCAATGCCCCGAGGT  
CGCGAGCTGCTGTTCTTTTGAAGGCGCCGGAGAACCAGGGGGCGTCCCGCGCCACCTCTGACTCGGAGCAGCGCCG  
AGCACTGACGCTCCCGCCCTTGGGCAAGGACGCCAGTGCGCCCGCGCGCTCCCTCTGCGCGGCAGCCCGTCGCG  
GGCCCTCAAGGGGAAGCCAGGCCAGGATGCCCCGGGTGCGCGGGTGGCCGGGCTCCTGTTGCTGGCGGCCGCC  
GGCCTCGGAGGAGTGGCGGAGGGGCCAGGGCTAGCCTTCAGCGAGGATGTGCTGAGCGTGTTCGGCGCGAATCTG  
AGCCTGTGCGGCGCGCAGCTCCAGCACTTGCTGGAGCAGATGGGAGCCGCTCCCGCGTGGGCGTCCCGGAGCCT  
GGCCAGCTGCACTTCAACCAGTGTTTAACTGCTGAAGAGATCTTTCCCTTCATGGCTTTTCAAATGCTACCCAA  
ATAACCAGCTCCAAATTCTCTGTCACTGTCCAGCAGTCTTACAGCAATTGAACTTTACCCATGTGAGGATCGG  
CCCAAGCACAAAAACAAGACCAAGTCATTGAGAAGTTTGGGGATATGGATTCCCTGTGCTGAGTACGATTATTAATCTG  
GCATCTCTCCTCGGATTGATTTTGACTCCACTGATAAAGAAATCTTATTTCCCAAAGATTTTGACCTTTTTTGTG  
GGGCTGGCTATTGGGACTCTTTTTTCAAATGCAATTTTCCAACCTATTCCAGAGGCATTGGATTGATCCCAAA  
GTCGACAGTTATGTTGAGAAGGCAGTTGCTGTGTTTGGTGGATTTTACCTACTTTTTCTTTTTTGAAGAATGCTA  
AAGATGTTATTAAAGACATATGGTCAGAATGGTCATACCCACTTTGGAAATGATAACTTTGGTCCTCAAGAAAA  
ACTCATCAACCTAAAGCATTACCTGCCATCAATGGTGTGACATGCTATGCAAATCCTGCTGTGACAGAAGCTAAT  
GGACATATCCATTTTGATAATGTCAGTGTGGTATCTCTACAGGATGGAAGAAAGAGCCAAGTTCATGTACCTGT  
TTGAAGGGGCCAAACTGTCAGAAATAGGGACGATTGCCTGGATGATAACGCTCTGCGATGCCCTCCACAATTC  
ATCGATGGCCTGGCGATTGGGGCTTCCTGCACCTTGCTCTCTCCTTCAGGGACTCAGTACTTCCATAGCAATCCTA  
TGTGAGGAGTTTCCCCACGAGTTAGGAGACTTTGTGATCCTACTCAATGCAGGGATGAGCACTCGACAAGCCTTG  
CTATTCAACTTCCTTTCTGCATGTTCTGCTATGTTGGGCTAGCTTTTGGCATTTTGGTGGGCAACAATTTGCT  
CCAAATATTATATTGCACTTGCTGGAGGCATGTTCTCTATATTCTCTGGCAGATATGTTTCCAGAGATGAAT  
GATATGCTGAGAGAAAAGGTAAGTGAAGAAAAACCGATTTACCTTCTTCATGATTGAGAATGCTGGAATGTTA  
ACTGGATTACAGCCATTCTACTCATTACCTTGATGCAGGAGAAATCGAATTGGAGTAATAGAAAATGGAAGAT  
GGTGTGTTAATAAAAGGCATTTAATAGATAAAAAACATCTCCAAAAAGGATTTTGAAGCTGATCCTATTTAGTTAA  
AAAGATAATTTTGCTTTCAACTGTAGGTCCAGAAAACATAATTATTGGCATCAGTCTGTGAAATAGTCCATTATTT  
GTTGTTAAAAATGCTTCAAAAGGTTTTTCAGTGTGAGTCTGAGATGCCTGGTATATAGGAGCCTTTGGGAAATACT  
TATTTTTTCAGTATTCCATGCATATTAGATATCACCATGAAGCAAGAGACATGCATTCTATAATCATGTAGACACT  
CAGACTCAGGGGAAAAATACAAGTTATATCCTGAAAGCCTTTAAACTCTATGGTAGGATCAAAGATTCAAATGGT  
TTCAGAGAGGTTTTATTTCAATTAATTTGTTCTAGTGCTTTCAAGAGCAAGTACATCAAAATGTAGAAGGTAAAA  
TGTATGCAACACTAATATAAATTATTCCAAGTCTTTAAGGAGCCAAAGAAAAAAGATTTCTCACAGCTTTTTG  
TTCTGTTTTGTATTTCAATTAGGAAGTGCAGTATTATTTTGAAGAACCTTCTAAAATAATAGGAGTTAGGAAAT  
AAATAAAGTTTTGCTAGCCCTGCTAAGTTCAGGCTTAGAGGCTTATCGCTAAGTXTAACTTCACCAGATTCCAC  
GAAAAGCTGGATAGCTTTTTTCTGACTTATGTTGTGGTTGCACCCCTCACAAATGGCAGAACAGTATGTAAAGC  
TGGTAACACCTCGGTTTCAGTGCACCATGTGTTTGCTTTGTGAAGGTGAAGAATATGTTGGTTTAGAGAAAGAAA  
TTGGATGTAATTTTATGCAATTTACTTTTAAAGACAAACATAACTATTTAGCAGAGAATATTTTAAATAAATGCAA  
AACACAGCTGGACTGCTGTACATCAAGGACAGATTAACTGGAAAACATATGTTCCCTTATGTGTGATTGAGAGCC  
ATTGAGAAAAGACTTCCTTTGTGTTTCAGCCTATACTTTTCCATATGGTATACCTTGAAAAAATTAGCACACCAT  
GGTTATTTTTCTACCTTTTATAAAAGACAGAGCCTGTTTACTCATTTAGAAGATAGAGAAAATTGGTCTAAAATT  
GAACATCCTAGATTCACACTCCCAAGTCACCTAAGGTGATTTGATGGTGAGGAAAATGATTGACAAAGCCCAACA  
ATGATCTCAGGAATTACATTTTCCAACAGACCAAAAAATGTTTTCATGTAGCAGCAATGCAGATTGGTGAATAT  
TTAATATATATTTTAGTATGTATTTCACTTTATGACTGACAATAAAAAATATTGTTGGCCAAATAGTAAACAC  
CCTTTTGAACCATGAAAAAA

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**FIGURE 1072**

MAPGRAVAGLLLLAAAGLGGVAEGPGLAFSEDVLSVFGANLSLSAAQLQHLLLEQMGAASRVGVPEPGQLHFNQCL  
TAEEIFSLHGFSNATQITSSKFSVICPAVLQQLNFHPCEDRPKHKTRPSHSEVWGYGFLSVTIINLASLLGLILT  
PLIKKSYFPKILTFFVGLAIGTLFSNAIFQLIPEAFGFDPKVDSYVEKAVAVFGGFYLLFFFFERMLKMLLKTYGQ  
NGHTHFGNDNFGPQEKTHQPKALPAINGVTCYANPAVTEANGHIHFDNVSVSLQDGKKEPSSCTCLKGPKLSEI  
GTIAWMITLCDALHNFIDGLAIGASCTLSLLQGLSTSIAILCEEFPHELGDVILLNAGMSTRQALLFNFLSACS  
CYVGLAFGILVGNNFAPNIIIFALAGGMFLYISLADMFPENDMLREKVTGRKTDFTFFMIQNAGMLTGFTAILLI  
TLYAGEIELE

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**FIGURE 1073**

GAATTCCGGCTCCCGCGGCTGCAGGCGCGCGCTAGAGTGCCTGGCGGGCTCCGGCTTCCGCGTCCGCCCCGGCC  
CCGGTCCAGACTTAGTCTTCAGCTCCGCGCCCGCTCCGCCGCGGCCACCGCGCCCGCCGGCAGCCGAGCCCCCA  
GCGACGCCCCGCACAGCTCCGGGTGCCAGACAGGGGGCC**ATG**CCGTGCCGGAGGGAGGAGGAAGAGGAAGCCGGC  
GAGGAGGCGGAGGGGGAGGAAGAGGAGGAGGACAGCTTCTCTACTGCAGCAGTCAGTGGCGCTGGGCAGCTCG  
GGCGAGGTGGACCGGCTGGTGGCCCAGATCGGCGAGACGCTGCAGCTGGACGCGGCGCAXGACAGCCCCGGCCTCG  
CCGTGCGGGCCCCCGGGGGCGCCGCTGCGGGCCCCGGGGCCCCGGCTGCGGCGGTGCCGGCGGACAAGGCCAGG  
TCCCCGGCGGTGCCGCTGCTGCTGCCGCCCCGCTTGCGGGAGACTGTGGGCCCGGCGCCCCCTGGGGTCTGCGC  
TGCGCCCTGGGGGACCGCGGCCGCTGCGGGGCGCGCTGCGCCCTACTGCGTGGCCGAGCTCGCCACAGGCCCC  
AGCGCGCTGTCCCCACTGCCCCCTCAGGCCGACCTTGATGGGCCTCCGGGAGCTGGCAAGCAGGGCATCCCGCAG  
CCGCTGTGCGGTCCGTGCCGGCGAGGATGGCTCCGGGGCGCCGCCGCTCCCGCCGCTGCAGCAGCGACGCGGG  
TCCCAACCAGAAACCCGCACAGGCGACGACACCCGCACCGGCTTCTGCAGCAGCTAGTGTCTCTTGGAAACCTC  
ATCAAGGAGGCCGTGCGAAGGCTTATTGCGACGGCTGCAGTTACGTGCAAAGCTTCCCCAACGCCCGCTCCTG  
GGACCTCTGTGCGCCCCGGTGCATGAACCCCTTCGCCTCGCAGCCCTCGCGCGGCTGCAGTGACCCTGGCGCC  
TCCGGGAGGGCGCAGCTCAGAACTGGCGACGGCGTTCTTGTGCCTGGCAGCT**TAA**CAGCCCCGGGGTGGCCACAGC  
GCCAGCCTCAGACTGGAGGGCAAGGGGTTCCTTGAGGGCTGCAGTTCTACTCAGGCTGGTGGAGAACTCTGGCT  
TTTGGAAGCGAGAGTAAAAAGCTAATGACGAGGAACCGAAAAATCGCGAGTGTTTCGCGGGTAACTGGGGTTGAG  
GGCCAAAATATTTGGAATGAAGGACTTGGCCCTATTTAAGGCAGATTTTACAGAGCGCACCTCAAACGTACAAGT  
CAGTAGGACTCCTTATTTGGCGTGACCCGACCTGGCCGCGGAGCCTGCATTTCTCGCAGCCTCTCAGTGCCCTC  
CAGCCCCGCGACCATGTGGCCACAATCCACGCTTCTCCGGATCGCGGTGCGCCGGAACCACGGAGGATGATGCCA  
GTTACTTGCTTTACCTTTTCAGGGCTGGCTCCTGATCCACTTTGGGGGAGGAGAACATGAGTAGATAATTTCAAG  
GTGCAGCCCAATCTGCCAGACTTAAAAAAACCATCTTGCTGCTTTGGAGGTGCTGCTTAATATCAAACATGCGGT  
GCCATGAAGGGACCTTTGGGGGTGAATAGGAGTTAACCCTGCGCTCTCTTGCAACTGTCTCTCTCTCAGA  
GTGGTGGGGGAAGGCTGTACGACACGGGTGGGGAAAGGAGGTGGGGGCGGGGAGTATTGAATGGTGGTGGAAAGG  
TAGAGAGGCGCGGAGTGAACCCACGCCCTGTCTAAAGTGATTTTCAGAGCCGGCCCGCCTCTCCTCGGTTCAA  
GGTCACTGTTTCTTGGGCACGCACTGGGTTGCGGGACAGAGTAGCCAGTTTCTGCCGGTGCTCGGAGAAGAGCGC  
AGTGTTTTGCAAGTGCTGGAGTCTCCTGAGGACACGCGCTCGCCGCCACCGCGGTGTGGGAAAGCGCGGACGT  
GCTGGGCGTCTGTGCTTCGGTAGGCGACCACCGCCCTGGCCGCGCTCCGGGCTTTCACGGAAACTCCCGAGACC  
GGGCCCTGGGTTCTCTCTCTCTACTCGGCTCTGCAGTCTACTCAAGCGGTGGCTCTGGGATCCTGGGGGCCT  
GGGTGGGGGCTAGGGAGACGCCATGTGATGGACACTCCAGGGACACACAGCCTAGCACAGCAGCTTATAATGGG  
CTCTCCGGGGCCATTTGCAATAACAGCTGCAATTCCCTGGATAGACGAGTTGATTTCTCTCTCTGCCCCCTCCC  
CAGCCATGCCAGCTGGCCTTTGTAAGTGACAGGAAACCGAGTAGAAAATGTGACCCTCCAAATGGAGAAGCTGCCA  
GCTTTGCCATTGTGAACCATGGTGAAGTGCTTGAACATACTGTTCACTCACTCTAAAGGCGCTGAGACTGTGCT  
GTTGTTCTCGTTTTTATAGTCAATGGCTTGTTTCATCATCCAGATGTGGCTACTGACATATCTACACTTCGCACCG  
GAGTGTCTGGAATTGTGGCTATCCTGATTATAGGATTTTAACTTAACTGAAATGCCTGCTTTGAATAAATGTGTT  
GGGTTTTT

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**FIGURE 1074**

MPCRREEEEEAGEEAEGESEEDSFLLLQQSVALGSSGEVDRLVAQIGETLQLDAAXDSPASPCGPPGAPLRAPG  
PLAAAVPADKARSPAVPLLLPPALAETVGPAPPGVLRALGDRGRVRGRAAPYCVAEELATGPSALSPLPPQADLD  
GPPGAGKQGIPQLSGPCRRGWLRGAAASRRLLQRRGSQPETRTGDDDPHRLQLVLSGNLIKEAVRRLHSRRLL  
QLRAKLPQRPLLGPLSAPVHEPPSPRSPRAACSDPGASGRAQLRTGDGVLVFPGS

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**FIGURE 1075**

GGGGGGGCGGGGCGCCAGCGGGATGCGGTGAAGGGCGAGCGGCGGGCGGCTGCG**ATG**AGTGCCTCTGCGGCC  
 ACCGGGGTCTTCGTGCTGTCCCTCTCGGCCATCCCGGTCACCTATGTCTTCAACCACCTGGCGGGCCAGCATGAT  
 TCCTGGACTATTGTAGGGGTTGCTGCCCTCATCCTGTTTCTGGTAGCACTGCTGGCTCGTGTCTCGTCAAAGA  
 AAACCACCCCGGGACCCACTGTTCTATGTGTATGCAGTTTTTGGATTTACCAGCGTGGTGAACCTCATCATAGGA  
 CTGGAGCAAGATGGAATCATTGACGGGTTTCATGACACACTACTTGAGAGAGGGTGAACCGTATCTGAACACCGCA  
 TATGGGCACATGATCTGCTACTGGGATGGCTCTGCTCATTATCTGATGTACCTGGTGATGGTGGCAGCCATAGCA  
 TGGGAGGAACTTATAGAACCATTGGCCTATATTGGGTTGGATCTATTATTATGAGTGTGTTGTTTTGTGCCA  
 GGAAACATTGTAGGGAAGTATGGAACACGAATTTGCCCTGCTTTTTCTTAAGCATACCATATACTTGTCTTCCT  
 GTCTGGGCTGGTTTCAGAATCTATAATCAGCCATCAGAAAATTATAATTACCCCTCAAAGGTTATTCAAGAAGCC  
 CAAGCGAAAGACCTGCTGAGAAGACCATTTGATTTAATGTTGGTTGTGTGTCTCCTCCTGGCAACTGGATTTTGC  
 CTGTTTCAAGGTTTGATTGCTTTGGATTGCCCATCTGAGCTCTGCCGATTATATACGCAATTTCAAGAGCCCTAT  
 CTAAAGGATCCTGCTGCTTATCCTAAAATTCAGATGCTGGCATATATGTTCTATTCTGTTCTTACTTTGTGACT  
 GCACTGTATGGCTTAGTGGTTCTGGATGTTCTGGATGCCTGACATCACATTGATACATGCTGGAGGTCTGGCT  
 CAGGCTCAGTTTTCTCACATTGGTGCATCTCTTCATGCTAGAACTGCTTATGTCTACAGAGTCCCTGAAGAAGCA  
 AAAATCCTTTTTTTAGCATTAAACATAGTATATGGAGTTCTTCCTCAGCTCTTGGCCTATCGTTGTATCTACAAA  
 CCAGAGTTCTTCATAAAAACAAAGGCAGAAGAAAAAGTGGAA**TAAAA**AATTACTTCATGTTCTCCTTTCTAAA  
 TTACTAACTTTTGTATATACTGGTACTGATATTTGTCCCATTTCACTCTCTTCTCATACGTGAGTACTTAAGAAT  
 ATGTACATTCTTGCTCTGCACTGTATGTGTGAGCTATATGGTATTGTGTAAATTTTTTTGAAGGAAAATGGAAA  
 TTCTTGAGAAACAGTTTGTTTAAAGAAATATATTCAAATCATTTGTGAATAAACTTGATCATCCATCTCAAAAA  
 AAAAAAAAAAAAAAAAAA

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**FIGURE 1076**

MSASAATGVFVLSLSAIPVTYVFNLHAAQHDSWTIVGVAALILFLVALLARVLVKKRPPRDPLFYVYAVFGFTSV  
VNLIIGLEQDGIIDGFMTHYLREGEPYLNTAYGHMICYWDGSAHYLMYLMVAAIAWEETYRTIGLYWVGSIIIMS  
VVVFVPGNIVGKYGTRICPAFFLSIPYTCLPVWAGFRIYNQPSENYNYPISKVIEAQAKDLLRRPFDLMLVVCLL  
LATGFCLFRGLIALDCPSELCLRYTQFQEPYLDPAAYPKIQMLAYMFYSVPYFVTALYGLVVPGCWMPDITLI  
HAGGLAQAFSHIGASLHARTAYVYRVPEEAKILFLALNIVYGVLPQLLAYRCIYKPEFFIKTKAEEKVE



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**FIGURE 1077**

GGCTGCCGGGGAGGCCAGAGCGTGGAGCGCTGCGCGGCGCGGCGGCCCGGGCCCTCGAGACGGGGACGGACACACC  
AGCCCCCTCAGATAACCACTTGGCCACTCCCGCTGAGGCCACTCCCACTGCGTGGCTGAAGCCTCGAGGTACCAGG  
CGGAGGCGCGGAGATGCCCCCTGCATCAGCTGGGGGACAAGCCGCTCACCTTCCCCAGCCCCAACTCAGCCATGGA  
AAACGGGCTTGACCACACCCACCCAGCAGGAGGGCATCCCCGGGCACACCCCTGAGCCCCGGCTCCCTCCGCTC  
CGCTGCCCATAGCCCCCTGGACACCAGCAAGCAGCCCCCTCTGCCAGCTCTGGGCCGAGAAGCATGGCGCCCCGGG  
GACCCATGAGGTGCGGTACATCTCGGCCGGGCAGAGCGTGGCGTGGCGCTGGTGGGCCTTCGCACCGCCGTGCCT  
GCAGGTCTCAACACGCCCAAGGGCATCCTGTTCTTCTGTGTGCGGCCGATTCTCTGCAGGGGATGACTGTGAA  
TGGCTTCATCAACACAGTCATCACCTCCCTGGAGCGCCGCTATGACCTGCACAGCTACCAGAGCGGGCTCATCGC  
CAGCTCCTACGACATTGCCGCCTGCCTCTGCCTCACCTTCGTACAGTACTTCGGGGGCTCAGGGCACAAGCCGCG  
CTGGCTGGGCTGGGGCGTGCTGCTTATGGGCACGGGTTCGTGGTGTTCGCGCTGCCCCACTTCACGGCTGGCCG  
CTATGAGGTGGAGTTGGACGCGGGTGTGAGGACGTGCCCTGCCAACCCCGCGCGGTGTGTGCGGACAGCACCTC  
GGGCCTGTCCCCTACCAGCTGGTCTTCATGCTGGGCCAGTTCTTGCATGGCGTGGGTGCCACACCCCTCTACAC  
GCTGGGCGTCACCTACCTGGATGAGAACGTCAAGTCCAGCTGCTCGCCGCTCTACATTGCCATCTTCTACACAGC  
GGCCATCCTGGGCCAGCTGCCGGCTACCTGATTGGAGGTGCCCTGCTGAATATCTACACGGAATGGGCCGACG  
GACGGAGCTGACCACCGAGAGCCCACTGTGGGTTCGGCGCCTGGTGGGTTCGCTTCTGGGCTCTGGGGCCGCTGC  
TTTCTTACCAGCGTTCCCATCCTTGGTTACCCCTCGGCAGCTGCCAGGCTCCCAGCGCTACGCGGTTCATGAGAGC  
GGCGGAAATGCACCACTTGAAGGACAGCAGCCGTGGGGAGGCGAGCAACCCGGACTTTGGGAAAACCATCAGAGA  
CCTGCCCTCTCTCCATCTGGCTCCTGCTGAAGAACCCACGTTTCATCCTGCTCTGCCTGGCCGGGGCCACCGAGGC  
CACTCTCATCACGGCATGTCCACGTTAGCCCCAAGTTCTTGGAGTCCAGTTTCAGCCTGAGTGCCTCAGAAGC  
TGCCACCTTGTGGGTACCTGGTGGTGCCAGCGGGTGGTGGCGGCACCTTCCTGGGCGGCTTCTTTGTGAACAA  
GCTCAGGCTCCGGGGCTCCGCGGTTCATCAAGTTCTGCCTGTTCTGCACCGTTGTGAGCCTGCTGGGCATCCTCGT  
CTTCTCACTGCACTGCCCCAGTGTGCCCATGGCGGGCGTTCACAGCCAGCTACGGCGGGAGCCTCCTGCCCGAAGG  
CCACCTGAACCTAACGGCTCCCTGCAACGCTGCCTGCAGCTGCCAGCCAGAACACTACAGCCCTGTGTGCGGCTC  
GGACGGCCTCATGTACTTCTCACTGTGCCACGCAGGGTGCCCTGCAGCCACGGAGACGAATGTGGACGGCCAGAA  
GGTGTACCGAGACTGTAGCTGTATCCCTCAGAATCTTTCCTCTGGTTTTGGCCATGCCACTGCAGGGAAATGCAC  
TTCAACTTGTGAGAGAAAGCCCCCTCCTTCTGGTTTTTCATATTCGTTGTAATTTTCTTTACATTCTCAGCAGCAT  
TCCTGCACTAACGGCAACTCTACGATGTGTCCGTGACCCCTCAGAGATCCTTTGCCCTGGGAATCCAGTGGATTGT  
AGTTAGAATACTAGGGGGCATCCCGGGGCCCCATCGCCTTCGGCTGGGTGATCGACAAGGCCTGTCTGCTGTGGCA  
GGACCAGTGTGGCCAGCAGGGCTCCTGCTTGGTGTACCAGAATTCGGCCATGAGCCGCTACATACTCATCATGGG  
GCTCCTGTACAAGGTGTGGGCGTCTCTTCTTTGCCATAGCCTGCTTCTTATACAAGCCCCCTGTCGGAGTCTTC  
AGATGGCCTGGAACTTGTCTGCCAGCCAGTCTCAGCCCCCTGACAGTGCCACAGATAGCCAGCTCCAGAGCAG  
CGTCTGACCACCGCCCGCGCCACCCGGCCACGGCGGGCACTCAGCATTTCCTGATGACAGAACAGTGCCGTGG  
GTGATGCAATCACACGGGAACCTTCTATTTGACCTGCAACCTTCTACTTAACCTGTGGTTTTAAAGTCGGCTGTGAC  
CTCCTGTCCCCAGAGCTGTACGGCCCTGCAGTGGGTGGGAGGAACCTGCATAAATATATATTTATGGACACACAG  
TTTGATCAGAACGTGTTTATAGAATGTGTTTATACCCGATCGTGTGTGGTGTGCGTGAGGACAACTCCGCAG  
GGGCTGTGAATCCCACTGGGAGGGCGGGCGGGCCTGCAGCCCGAGGAAGGCTTGTGTGTCCTCAGTTAAACTGTG  
CATATCGAAATATATTTTGTATTTAAGCCTGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1078**

MPLHQLGDKPLTFPSPNSAMENGLDHTPPSRRASPGTPLSPGSLRSAHSPLDTSKQPLCQLWAEKHGARGTHEV  
RYISAGQSVACGWAFAPPCLQVLNTPKGILFFLCAAAFLOGMTVNGFINTVITSLERRYDLHSYQSGLIASSYD  
IAACLCLTFVSYFGGSGHKPRWLGWGVLLMGTSLVFALPHFTAGRYEVELDAGVRTCPANPGAVCADSTSGLSR  
YQLVFMLGQFLHGVGATPLYTLGVTYLDENVKSSCSPVYIAIFYTAAILGPAAGYLIGGALLNIYTEMGRRTLT  
TESPLWVGAWWVGFLGSGAAFFTAVPILGYPRQLPGSQRYAVMRAAEMHQLKDSSRGEASNPDFGKTIRDLPLS  
IWLLLKNPTFILLCLAGATEATLITGMSTFSPKFLESQFSLSASEAATLFGYLVVPAGGGGTFLGGFFVNKLRLR  
GSAVIKFCLEFCTVVSLLGILVFSLHCPVPMAGVTASYGGSLLPEGHLNLTAPCNAACSCQPEHYSPVCGSDGLM  
YFSLCHAGCPAATETNVDGQKVYRDCSCIPQNLSSGFGHATAGKCTSTCQRKPLLLVIFVVIFFTLSSIPALT  
ATLRCVRDPQRSFALGIQWIVVRILGGIPGPIAFGWVIDKACLLWQDQCGQGSCLVYQNSAMSRYLIMGLLYK  
VLGVLFFAIACFLYKPLSESSDGLETCPLPSQSSAPDSATDSQLQSSV

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**FIGURE 1079**

GAGTTCGGGGCCAGCAGCCGTCTACCCGGTGTGCGTTCTGTGTTGTGGCGGCCCTGGATCCGGCGTCAGGGCGA  
 CCGGGCGGACGAGGTGGAGCCAGAGTCTGTACGGCGGGTTGGTGAAGGGCGCGGGGCCGGGCACGGCGTTGGGAG  
 TCGCGCGCAGGGACCGGCCAGGCGGGCTGCAGGCACCTCAGAGCCCGGGACACCCCTCAACGTCCGCAGGCGCG  
**ATGAAGGCACTGATCTTAGTGGGGGGCTATGGGACGCGGCTACGGCCGCTGACGCTGAGCACCCCGAAGCCACTG**  
 GTGGACTTCTGCAATAAGCCCATCTTGCTGCACCAAGTGGAGGCGCTAGCCGCGGCAGGCGTGGACCACGTGATC  
 CTGGCCCGTGAGCTACATGTCGCAGGTGCTGGAGAAGGAAATGAAGGCACAGGAGCAGAGGCTGGGAATCCGAATC  
 TCCATGTCCCATGAAGAGGAGCCTTTGGGGACAGCTGGGCCCCCTGGCGCTGGCCCGTGACCTACTCTCTGAGACT  
 GCAGACCCTTTCTTCGTCCCTCAACAGTGACGTGATCTGCGATTTCCCCTTCCAAGCCATGGTGCAGTTCCACCGG  
 CACCATGGCCAGGAGGGCTCCATCCTGGTGACCAAGGTGGAGGAACCCCTCCAAGTACGGTGTGGTGGTGTGTGAG  
 GCTGACACAGGCCGCATTCACCGGTTCTGTGGAGAAGCCACAGGTGTTTGTGTCCAATAAGATCAACGCAGGCATG  
 TACATCCTGAGCCCTGCAGTGCTGCGGCGCATCCAGCTGCAGCCTACGTCCATTGAGAAGGAGGTCTTCCCCATT  
 ATGGCCAAGGAGGGGCGAGCTATATGCCATGGAGTTACAGGGCTTCTGGATGGACATTGGGCAGCCCAAGGACTTC  
 CTCACTGGCATGTGCCCTCTTCCTGCAGTCACTGAGGCAGAAGCAGCCTGAGCGGCTGTGCTCAGGCCCTGGCATT  
 GTGGGCAACGTGCTGGTGGACCCAAGTGCCCGCATCGGCCAGAAGTGCAGCATTGGCCCCAATGTGAGCCTGGGA  
 CCTGGCGTGGTGGTTCGAAGATGGTGTGTGTATCCGGCGGTGCACGGTGCTGCGGGATGCCCGGATCCGTTCCCAT  
 TCCTGGCTTGAGTCCTGCATTGTGGGCTGGCGCTGCCGCGTGGGTGAGTGGGTAAGCCTGTGGGCTGGGCTGGGT  
 GGGGAGAGGGGCGGGGAGTGTGCCTGCCTCCCTGACAAGGCCTATCCTCTCCTGGAGGTACGCATGGAGAACGTG  
 ACAGTGCTGGGTGAGGACGTCATAGTTAATGATGAGCTCTACCTCAACGGAGCCAGCGTGCTGCCCCACAAGTCT  
 ATTGGCGAGTCAGTGCCAGAGCCTCGTATCATCATG**TGAG**GGGGATGCAGTGGGGCTGGCCGAGCCCCGGTTTTCC  
 CATCAGCAAGGGGAGTGCTGGCCTGACACATCAGAAGACCCTGGACTTGTCAATTATTTGTCTGGGGGGCACTGGG  
 TGAAGCTGAAGCTGTTGGACACCTGCCTTCTCATGTGGACATCATCTGGCAGGATCCCTGCTGGGCACACCCAC  
 AAACCCCACTCCCTCAAGAAGGGCCAGGGCCAGGGCTGTATGGAATAATAATTTAATGCTCACTGTGAAAAAAA  
 AAAAAAAAAAAAAA

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**FIGURE 1080**

MKALILVGGYGTRLRPLTLSTPKPLVDFCNKPILLHQVEALAAAGVDHVLAVSYMSQVLEKEMKAQEQRIGIRI  
SMSHEEEPLGTAGPLALARDLLSETADPFFVLNSDVICDFPFQAMVQFHRHHGQEGSILVTKVEEPSKYGVVVCE  
ADTGRIHRFVEKPQVFVSNKINAGMYILSPAFLRRILQPTSIEKEVFPIMAKEGQLYAMELQGFWM DIGQPKDF  
LTGMCLFLQSLRQKQPERLCSGPGIVGNVLVDPSARIGQNC SIGPNVSLGPGVVVEDGVCIRRCTVLRDARIRSH  
SWLESCIVGWRCRVGQWVSLWAGLGGERGGECACLPDKAYPLLEVRMENVTVLGEDVIVNDELYLNGASVLPKHS  
IGESVPEPRIIM

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**FIGURE 1081**

AAGGCTATTATTACCACCACTGAGTGGCTTAAATAATCCTGTCAACAGCAATCGCCCATTTCCAAAGCCATGGTG  
AAACATCTCTGTGCTAATTTCTTTTGTTCCTAATTTTTTTTTTTTGGCAGGTGGTGGGAAATAATCTTT  
GTCTTCTTTGGAGTAAACCTTCAACACCGGATTTTTTCTTTAATTATGGATGTAAACCCCAATATCCCCATAAT  
TTACATTGGGTCTCGACCAATTGCCTAATTATAAGAGGATATATTTAGGCTCTTATTTTCATCCACACAAAACTT  
GTGTAACAGGTAGTTGGAAACATCTGAGGCACCACTTTGATTCTGTTTTGGATGGTCATGTTTTTCTCCTCCGT  
TTCCCCAGCATGTCTGCCACCATCCTCATGCACTGCTTCCAAGTGCCTGGGAGCCTTTATGAGCGTCCCTAAACC  
TAAAAGAATCCAGAGGCGGGGCTCGGATGAACCCTCGAGATAAGCAAGTGAGCCGCTTCTCCCCTCTAAAGGATG  
TTTACACGTGGGTGGCACTCGCTGGAATCCAGCGCTCGGGCAGCCCTGGGAGGACGCGCTCAGCTGCGAGGAGGA  
TGGAGAGCAATACATCATCTTTGGAGAATTTAGCGACGGCGCCTGTGAACCAGATCCAAGAAACAATTTCTG  
ATAATTGTGTGGTGATTTTCTCAAAAACATCCTGTTCTTACTGTACAATGGCAAAAAAGCTTTTCCATGACATGA  
ATGTTAACTATAAAGTGGTGGAACCTGGACCTGCTTGAATATGGAAACCAGTTCCAAGATGCTCTTTACAAAATGA  
CTGGTGAAAGAACTGTTCCAAGAATATTTGTCAATGGTACTTTTATTGGAGGTGCAACTGACACTCATAGGCTTC  
ACAAAGAAGGAAAATTGCTCCCACTAGTTCATCAGTGTTATTTAAAAAAAAGTAAGAGGAAAGAATTTCAGTGA  
GTTTATACTAATAAGTTTGCTAGTACAGTGTAGTTATTTAAAGTGGTAATGCCCGATAATGTCTTTTAAATGTT  
TGAGGATGTTTTAAATACATGCATTGTCTTCACGAAGAAGATGTAAAAATAATGAACAATAAATTGCGGTGGAAA  
CCTAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1082**

MNPRDKQVSRFSPLKDVTWVALAGIQRSGSPGRTRSAARMESNTSSSLENLATAPVNQIQETISDNCVVIFSK  
TSCSYCTMAKKLFHDMNVNYKVVELDLLEYGNQFQDALYKMTGERTVPRIFVNGTFIGGATDTHRLHKEGKLLPL  
VHQCYLKKSRRKEFQ

**FIGURE 1083**

**FIGURE 1083**

[illegible]

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**FIGURE 1084**

MPAERPAGSGGSEAPAMVEQLDTAVITPAMLEEEEQLEAAGLERERKMLEKARMSWDRESTEIRYRRLQHLLKS  
NIYSKFLLLTKMEQQQLEEQKKKEKLERKKESLKVKKGKNSIDASEEKPVMRKKRGREDESYNISEVMSKEEILSV  
AKKNKKENEDENSSSTNLCVEDLQKNKDSNSIIKDRLSETVRQNTKFFFDVVRKCNQGPVVPFQQPKHFTGGVMRW  
YQVEGMEWLRMLWENGINGILADEMGLGKTVQCIATIALMIQRGVPGPFLVCGPLSTLPNWMAEFKRFTPDIPM  
LYHGTQEERQKLVRNIYKRKGTLQIHPVVITSFEIAMRDRNALQHCYWKYLIVDEGHRICKNMKRLIRELKRFNA  
DNKLLLTGTPLQNNLSELWLLNLLPDVFDLKSFESEWFDITSLSETAEDIIAKEREQNVLMHLHQILTPFLLR  
RLKSDVALEVPPKREVVVYAPLSKKQEIFYTAIVNRTIANMFGSSEKETIELSPTGRPKRRTRKSINYSKIDDFP  
NELEKLISQIQPEVDRERAVVEVNIPVESEVNLKLQNMMLLRKCCNHPYLIEYPIDPVTQEFKIDEELVTNSGK  
FLILDRMLPELKKRGHKVLLFSQMTSMLDILMDYCHLRDFNFSRLDGSMYSEREKNMHSFNTDPEVFI FLVSTR  
AGGLGINLTAADTVIIYSDWN PQSDLQAQDRCHRIGQTKPVVVYRLVTANTIDQKIVERAAA KRKLEKLI IHKN  
HFKGGQSGLNLSKNFLDPKELMELLKSRDYEREIKGSREKVISDKDLELLLLDRSDLIDQMNASGPIKEKMGIFKI  
LENSEDSSPECLF



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**FIGURE 1085**

GAATTCCGGCAAAATGCATGACAGTAACAATGTGGAGAAAGACATTACACCATCTGAATTGCCTGCAAACCCAGG  
TTGTCTGCATTCAAAAGAGCATTCTATTAAAGCTACCTTAATTTGGCGCTTATTTTTCTTAATCATGTTTCTGAC  
AATCATAGTGTGTGGAATGGTTGCTGCTTTAAGCGCAATAAGAGCTAACTGCCATCAAGAGCCATCAGTATGTCT  
TCAAGCTGCATGCCCAGAAAGCTGGATTGGTTTTCAAAGAAAGTGTTTCTATTTTTCTGATGACACCAAGAACTG  
GACATCAAGTCAGAGGTTTTGTGACTCACAAGATGCTGATCTTGCTCAGGTTGAAAGCTTCCAGGAACCTGAATTT  
CCTGTTGAGATATAAAGGCCCATCTGATCACTGGATTGGGCTGAGCAGAGAACAAGGCCAACCATGGAAATGGAT  
AAATGGTACTGAATGGACAAGACAGTTTCCTATCCTGGGAGCAGGAGAGTGTGCCTATTTGAATGACAAAGGTGC  
CAGTAGTGCCAGGCACTACACAGAGAGGAAGTGGATTTGTTCCAAATCAGATATACATGTCTAGATGTTACAGCA  
AAGCCCCAACTAATCTTTAGAAGCATATTGGAACCTGATAACTCCATTTTAAATGAGCAAAGAATTTATTTCTTA  
TACCAACAGGTATATGAAAATATGCTCAATATCACTAATAACTGGGAAAATACAAATCAAATCATAGTAAATA  
TTACCTGTTTTTCATGGTGCTAATATTACCTGTTCTCCCACTGCTAATGACATACCCGAGAATGAGTAATTTATAA  
ATAAAAGAGATTTAATTGAAAAAAA

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**FIGURE 1086**

MHDSNNVEKDITPSELPANPGCLHSKEHSIKATLIWRLFFLIMFLTIIVCGMVAALSAIRANCHQEPSVCLQAAC  
PESWIGFQRKCFYFSDDTKNWTSSQRFCDSDADLAQVESFQELNFLRLRYKGPSDHWIGLSREQGQPWKWINGTE  
WTRQFPILGAGECAYLNDKGASSARHYTERKWICKSKSDIHV

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**FIGURE 1087A**

CTCCTCCTCCGTCTCCTCCTCTCTCTCTCATCTGCTGTGGTT**ATG**GCCTGTGCTGGAGCACAAAAGAGTCTCCG  
CGGTGGAGGTCTGCGTTGCTCTTGCTTTTCTCGCTGGGGTGTACGGAAATGGTGCTCTTGCAGAACATTCTGAA  
AATGTGCATATTTTCAGGAGTGTCAACTGCTTGTGGAGAGACTCCAGAGCAAATACGAGCACCAAGTGGCATAATC  
ACAAGCCCAGGCTGGCCTTCTGAATATCCTGCAAAAATCAACTGTAGCTGGTTCATAAGGGCAAACCCAGGCGAA  
ATCATTACTATAAGTTTTTCAGGATTTTGATATTCAAGGATCCAGAAGGTGCAATTTGGACTGGTTGACAATAGAA  
ACATACAAGAATATTGAAAGTTACAGAGCTTGTGGTTCCACAATTCCACCTCCGTATATCTCTTACAAGACCAC  
ATCTGGATTAGGTTTCATTTCGGATGACAACATCTCTAGAAAGGGTTTCAGACTGGCATATTTTTTCAGGGAAATCT  
GAGGAACCAAATTGTGCTTGTGATCAGTTTCGTTGTGGTAATGGAAAGTGTATACCAGAAGCCTGGAAATGTAAT  
AACATGGATGAATGTGGAGATAGTTCCGATGAAGAGATCTGTGCCAAAGAAGCAAATCCTCCAAGTGTCTGCTGCT  
TTTCAACCCTGTGCTTACAACCAGTTCCAGTGTATATCCCGTTTACCAAAGTTTACACTTGCCTCCCCGAATCT  
TTAAATGTGATGGGAACATTGACTGCCTTGACCTAGGAGATGAGATAGACTGTGATGTGCCAACATGTGGGCAA  
TGGCTAAAATATTTTTATGGTACTTTTAATTCTCCCAATTATCCAGACTTTTATCCTCCTGGAAGCAATTGCACC  
TGGTTAATAGACACTGGTGATCACCGTAAAGTCATTTTACGCTTCACTGACTTTAAACTTGATGGTACTGGTTAT  
GGTGATTATGTCAAAAATATGATGGATTAGAGGAGAATCCACACAAGCTTTTGCCTGTGTGACAGCTTTTGAT  
TCTCATGCACCTCTTACAGTTGTTTCTTCTTCTGGACAGATAAGGGTACATTTTGTGCTGATAAAGTGAATGCT  
GCAAGGGGATTTAATGCTACTTACCAAGTAGATGGGTTCTGTTTGCCATGGGAAATACCCTGTGGAGGTAAGTGG  
GGGTGTTTACTGAGCAGCAGCGTTGTGATGGGTATTGGCATTGCCCCAAATGGAAGGGATGAAACCAATTGTACC  
ATGTGCCAGAAGGAAGAATTTCCATGTTCCCGAAATGGTGTCTGTTATCCTCGTTCTGATCGCTGCAACTACCAG  
AATCATTGCCCAAATGGCTCAGATGAAAAAACTGCTTTTTTGGCAACCAGGAAATTTCCATTGTAAAAACAAT  
CGTTGTGTGTTTGAAGTTGGGTGTGTGATTCTCAAGATGACTGTGGTGATGGCAGCGATGAAGAAAATTGCCCA  
GTAATCGTGCCTACAAGAGTCATCACTGCTGCCGTCATAGGGAGCCTCATCTGTGGCCTGTTACTCGTCATAGCA  
TTGGGATGTACTTGTAAAGCTTTATTCTCTGAGAATGTTTGAAGAAGATCATTGAAACACAGTTGTCAAGAGTG  
GAAGCAGAATTGTTAAGAAGAGAAGCTCCTCCCTCGTATGGACAATTGATTGCTCAGGGTTTAATTCCACCAGTT  
GAAGATTTTCTGTTTGTTCACCTAATCAGGCTTCTGTTTTGGAAAATCTGAGGCTAGCGGTACGATCTCAGCTT  
GGATTTACTTCAGTCAGGCTTCCTATGGCAGGCAGATCAAGCAACATTTGGAACCGTATTTTTAATTTTGCAAGA  
TCACGTCATTCTGGGTCATTGGCTTTGGTCTCAGCAGATGGAGATGAGGTTGTCCCTAGTCAGAGTACCAGTAGA  
GAACCTGAGAGAAATCATACTCACAGAAGTTTGTTTTCCGTGGAGTCTGATGATACAGACACAGAAAATGAGAGA  
AGAGATATGGCAGGAGCATCTGGTGGGGTTGCAGCTCCTTTGCCTCAAAAAGTCCCTCCCACAACGGCAGTAGAA  
GCGACAGTAGGAGCATGTGCAAGTTCTCAACTCAGAGTACCCGAGGTGGTCATGCAGATAATGGAAGGGATGTG  
ACAAGTGTGGAACCCCCAAGTGTGAGTCCAGCAGTCACCAGCTTACAAGTGCACCTCAGTCGTATGACTCAGGGG  
CTACGCTGGGTACGTTTTACATTAGGACGATCAAGTTCCCTAAGTCAGAACCAGAGTCTTTGAGACAACCTTGAT  
AATGGGGTAAGTGAAGAGAAGATGATGATGATGTTGAAATGCTAATTCCAATTTCTGATGGATCTTCAGACTTT  
GATGTGAATGACTGCTCCAGACCTCTTCTTGATCTTGCTCAGATCAAGGACAAGGGCTTAGACAACCATATAAT  
GCAACAAATCCTGGAGTAAGGCCAAGTAATCGAGATGGCCCCGTGTGAGCGCTGTGGTATTGTCCACACTGCCAG  
ATACCAGACACTTGCTTAGAAGTAACACTGAAAAACGAAACGAGTGATGATGAGGCTTTGTTACTTTGT**TAG**GTA  
CGAATCACATAAGGGAGATTGTATACAAGTTGGAGCAATATCCATTTATTATTTGTAACCTTTACAGTTAAACTA  
GTTTTAGTTTTAAAAAGAAAAATGCAGGGTGATTCTTATTATTATATGTTAGCCTGCATGGTTAAATTCGACAA  
CTTGTAACCTCTATGAACCTTAGAGTTTACTATTTTAGCAGCTAAAAATGCATCACATATTATATTGTTCAATAAT  
GTCCTTTTCAATTTGTTTCTGATTGTTTTATCCTGATACTGTAGTTCACTGTAGAAATGTGGCTGCTGAAACTCAT  
TTGATTGTCAATTTTATCTATCCTATGTTAAATGGTTTGTTTTTACAAAATAATACCTTATTTTAATTGAAACGT  
TTATGCTTTTTGCCAACACATCTTGTAACCTTAATATACTAGATGTTAAGGTGTTAATGTACAAAAAAAACCTT  
TATACTCACCTGCGTTTTTCAATTTGTTTGACATTTGTCTATTATTGGATTTTCAATATCATATGAACCTGTGAGTG  
GAAACAAACTGTCTAAAAATTTTTCTCTTACGTTTAAACATACAATCATGTGAAATTTAGGCAGAGTTCGATAAAT  
TACTGGCAAAAACAAAACCTTTTTATAAAGATTTTTCTAATGTTGACTTTAATACTCTAACATGGTACAAACCAA  
TGGTAAAAATCCCAAGTCATTTCTTTTTTCTCTCTATTTAGCAACAGAAATTAAGTGGATGAAGATATTCTACTAT  
GCATTAAATCTTGAACCTTATAAAAACATGTACAAAAATTGTACAAGATAAGTTCCACCTGGTAATGTCTTTCCCT  
AATACAGGGTTGCGCTTGCAATGGACCCTAGGGATTTGCACTAAAAATTATATCAAGGTCTCAGATGAGCTTAGTG  
CACAAGCACTATCACTTTAAATACTATTATTTGCTACCACAGCAACTATATATTTCCATAGCTTTTGGCTGGGGG

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**FIGURE 1087B**

CGGGGGACATTTTATTACAACCTTGAAATTGCTTTGCTGGTTTCATATTTATTTGTTGTATTTAAAAAATACATT  
GTTGTAAGAGTGATTTTTTCAATATATTTTATTCTGGGGGGGATCATGCTACACTCTCAAAGAAAATTAAGAA  
ATCATTGAGATCATCCCCCTTTTAAAGTAGTGTGAATTGCAAAACCCAACATATTTTTTTTACTGTCAGTTGCG  
GTTTATTTATTCCTTAACCTGCTGTTTTAGTAGTTTAAATGATTATGAAAAATGTATCTGTGTGTGATTTGCTATT  
TATTAAATTTAAGTACTTTGCTGAATGTCATTTTAAAGCATGTTTGAAGTCTTGTGTATTTGTCTGTGTTAATG  
CTGTCAGGAGGAAGTACTGACTAAGATGTTTTAATATGTATCAAAAATTAATGATTTTTTTTATTGCCTTGAGGTA  
CTTTTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1088**

MACRWSTKESPRWRSALLLLFLAGVYGNGLAEHSENVHISGVSTACGETPEQIRAPSGIITSPGWPSEYPAKIN  
CSWFIRANPGEIITISFQDFDIQGSRRCNLDWLTETIYKNIESYRACGSTIPPPYISSQDHIWIRFHSDDNISRK  
GFRLAYFSGKSEEPNCACDQFRCGNGKCIPEAWKCNNMDECGDSSDEEICAKEANPPTAAAFQPCAYNQFQCLSR  
FTKVYTCLPESLKCDGNIDCLDLGDEIDCDVPTCGQWLKYFYGTFNPNYPDFYPPGSNCTWLIDTGDHRKVILR  
FTDFKLDGTGYGDYVKIYDGLEENPHKLLRVLTAFDASHAPLTVVSSSGQIRVHFCADKVNAARGFNATYQVDGFC  
LPWEIPCGGNWGCYTEQQRCDCGYWHCPNGRDETNCMCQKEEFPCSRNGVCYPRSDRCNYQNHCPNGSDEKNCFF  
CQPGNFHCKNNRCVFESWVCDSDDCGDSDEENCPVIVPTRVITAAVIGSLICGLLLVIALGCTCKLYSLRMFE  
RRSFETQLSRVEAELLRREAPP SYGQLIAQGLIPPVEDFPVCSNPQASVLENLRLAVRSQLGFTSVRLPMAGRSS  
NIWNRIFNFARSRHSGSLALVSADGDEVVPSQSTSREPERNHTHRSLFSVESDDTDENERRDMAGASGGVAAPL  
PQKVPPTTAVEATVGACASSSTQSTRGGHADNGRDVTSVEPPSVSPARHQLTSALSMTQGLRWVRFTLGRSSSL  
SQNQSPLRQLDNGVSGREDDDDVEMLIPISDGSSDFDVNDCSRPLLDLASDQGQGLRQPYNATNPGVRPSNRDGP  
CERCIVHTAQIPDTCLEVTLKNETSDDEALLC

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**FIGURE 1089**

GGGGGTGGCGGGGACGCGAGTGGCGGCCGCGGGGCCCCGGACAAGGGTCCGCAGAGCTGCAGCCTTCGAGGGCCA  
GCCCTCTCCGAGTCCGGGGCTGGGTCCCACCAAGTGACAAGGCGGCAGCCCCGCGCACACCAAAGAGAAAGCGGCT  
GTGGCGGCAGCGGCAGCCCCAGCC**ATG**CTGTGTTATGTGACGAGGCCGGACGCGGTGCTGATGGAGGTGGAGGTG  
GAGGCGAAAGCCAACGGCGAGGACTGCCTCAACCAGGTGTGCAGGCGACTGGGAATCATAGAAGTTGACTATTTT  
GGACTGCAATTTACGGGTAGCAAAGGTGAAAGTTTATGGCTAAACCTGAGAAACCGGATCTCCCAGCAGATGGAT  
GGGCTAGCCCCCTTACAGGCTTAAACTTAGAGTCAAGTTCTTCTGTGGAGCCTCATCTCATCTTACAGGAGCAGACT  
AGGCATATCTTTTCTTGACATCAAGGAGGCCCTCTTGGCAGGCCACCTCTTGTGTTCCCCAGAGCAGGCAGTG  
GAACTCAGTGCCCTCCTGGCCCAGACCAAGTTTGGAGACTACAACCAGAACTGCCAAGTATAACTATGAGGAG  
CTCTGTGCCAAGGAGCTCTCCTCTGCCACCTTGAACAGCATTGTTGCAAAACATAAGGAGTTGGAGGGGACCAGC  
CAGGCTTCAGCTGAATACCAAGTTTTCAGATTGTGTGCGCAATGGAAAACTATGGCATAGAATGGCATTCTGTG  
CGGGATAGCGAAGGGCAGAGACTGCTCATTGGGGTTGGACCTGAAGGAATCTCAATTTGTAAAGATGACTTTAGC  
CCAATTAATAGGATAGCTTATCCTGTGGTGCAGATGGCCACCCAGTCAGGAAAGAATGTATATTTGACGGTCACC  
AAGGAATCTGGGAACAGCATCGTGCTCTTGTTTAAATGATCAGCACCAGGGCGGCCAGCGGGCTCTACCGAGCG  
ATAACAGAGACGCACGCATTCTACAGGTGTGACACAGTGACCAGCGCCGTGATGATGCAGTATAGCCGTGACTTG  
AAGGGCCACTTGGCATCTCTGTTTCTGAATGAAAACATTAACTTGGCAAGAAATATGTCTTTGATATTAAAAGA  
ACATCAAAGGAGGTGTATGACCATGCCAGGAGGGCTCTGTACAATGCTGGCGTTGTGGACCTCGTTTCAAGAAGC  
AACCAGAGCCCTTCACACTCGCCTCTGAAGTCCTCAGAAAGCAGCATGAACTGCAGCAGCTGCGAGGGCCTCAGC  
TGCCAGCAGACCCGGGTGCTGCAGGAGAAGCTACGCAAGCTGAAGGAAGCCATGCTGTGCATGGTGTGCTGCGAG  
GAGGAGATCAACTCCACCTTCTGTCCCTGTGGCCACACTGTGTGCTGTGAGAGCTGCGCCGCCAGCTACAGTCA  
TGTCCCGTCTGCAGGTGCGGTGTGGAGCATGTCCAGCACGTCTATCTGCCAACGCACACCAGTCTTCTCAATCTG  
ACTGTAATCT**TAA**TCTGTTGTGCTTTTGTGGACTTGGCATGTTTCCATGAACTGCACTATTATAAACTATTAAAA  
TGATAGATGTTGGAGAAAGTAATTATTCCAACACCCATCTGCCCATGCGATGTTAAAAA

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**FIGURE 1090**

MLCYVTRPDVLMEEVEEAKANGEDCLNQVCRRLGII EVDYFGLQFTGSKGESLWLNLRNRISQQMDGLAPYRLK  
LRVKFFVEPHLILQEQTRHIFFLHIKEALLAGHLLCSPEQAVELSALLAQTKFGDYNQNTAKYNYEELCAKELSS  
ATLNSIVAKHKELEGTSQASAEYQVLQIVSAMENYGIEWHSVRDSEGQRLLIGVGPEGISICKDDFSPINRIAYP  
VVQMATQSGKNVYLTVTKEGNSIVLLFKMISTRAASGLYRAITETHAFYRCDTVTSVMMQYSRDLKGHLASLF  
LNENINLGKKYVFDIKRTSKEVYDHARRALYNAGVVDLVSRSNQSPSHSPLKSSSESSMNCSSCEGLSCQQTRVLQ  
EKLRLKEAMLCMVCCEEEINSTFCPCGHTVCCESCAAQLQSCPVCRSRVEHVQHLYLPHTSLLNLTVI

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**FIGURE 1091**

GGAAGCTCAGCAGTGTCCACTGTGCGCCATTCCTTGGCCATAGAAAAACAATGTATTTGAATTTTGATGTAAGCATA  
GCAAATTGAAGATGAAGATGACACGTTGATTTCTTGTGTTGAAATTAACCAAGTCCCGAGAAAAAGAAAGTGAATAG  
TGTTAGCACGAGGAGGAAGGAAGAAATGAGATTAGATTGGATACTCTTTCTGCATCACTGGGTAGATCCAGCAC  
TTTAAATGACTGCAACTTGGAAGATAAATTAGCTTGGTATGAAGGTGAAGCTTACATGTGGCATCACTGGAAGCC  
TTTTCTGAAAACCTCTCTGGACATGTCTTGATTTCCAAATAGCACAAAGTTGGACCCTGGGACTACTGCTCCTC  
TTGTATTCGCCACACACGTCTCAAGTCTTCTGCTCAGATATGGATCTCCTACATTCATGGCGAAGCAGCAGTTT  
TGGGAATTTTCGATCGTTTTTCGGAATAATTCTTTATCAAAACCAGATGATTCAACTGAGGCACATGAAGGAGATCC  
CACAAATGGAAGTGGAGAACAAAGTAAACTTCAAATAATGGAGGCGGTTTGGGTAAAAAATGAGAGCTATTTT  
ATGGACAATGAAGAAAAAAGTGGGTAAAAAGTACATCAAAGCCCTTTCTGAGGAAAAGGATGAGGAAGATGGAGA  
GAATGCCCACCCATATAGAAACAGTGACCCTGTGATTGGGACCCACACAGAGAAGGTGTCCCTCAAAGCCAGTGA  
CTCCATGGATAGTCTCTACAGTGGACAGAGCTCATCAAGTGGCATAACAAGCTGTTTCAAGTGGTACAAGTAACCG  
GGACAGCTTTTCGACTGGATGACGATGGCCCTATTTCAGGACCATTCTGTGGCCGTGCCAGAGTGCATACGGATTT  
CACGCCAAGTCCCTATGACACTGACTCCCTCAAATCAAGAAAGGAGACATCATAGACATTATTTGCAAAACACC  
AATGGGGATGTGGACAGGAATGTTGAACAATAAAGTGGGAACTTCAAATTCATTTATGTGGATGTCATCTCAGA  
AGAGGAAGCAGCCCCCAAGAAAATAAAGGCAAACCGAAGGAGTAACAGCAAAAAATCCAAGACTCTGCAGGAGTT  
CCTAGAGAGGATTCATCTGCAGGAATACACCTCAACACTTTTGCTCAATGGTTATGAGACTCTAGAAGATTTAAA  
AGATATAAAAGAGAGTCACCTCATTGAATTAATATTGAAAACCCAGATGACAGAAGAAGTTACTATCAGCTGC  
TGAAAACCTTCTTGAAGAAGAAATTATTCAAGAGCAAGAAAATGAACCTGAGCCCCTATCCTTGAGCTCAGACAT  
CTCCTTAAATAAGTCACAGTTAGATGACTGCCCAAGGGACTCTGGTTGCTATATCTCATCAGGAAATTCAGATAA  
TGGCAAAGAGGATCTGGAGTCTGAAAATCTGTCTGACATGGTACATAAGATTATTATCACAGAGCCAAGTGACTG  
AACACGCATTCCCAACTATATCTACAGATGCATTCCATTTTAACTCTTCTTGAGCTAAAACGTCAAATAGGAG  
AGGAAGATAAGATAAATATTTGTAATAAAACCTAAAGTTTAAATGTTTAACTCTGAATAATTGTACATAAAATT  
TTGTATCTCTAACATTCCAAATTACTGTCAATAAAATATATATTTATTATTTTAAATGCTATGTGTTAATATTTT  
ACTTGCTTGTATTAGAAAAGGCAAAATGTAAGACTTTGGTATGTGTGACATATGCTTTATTTGGCTTTATTTTACA  
AGTACAGTATCTGCAAAAAACAAAGTAACCTTTTTTACATCTGCCAGTTTGAATTTATATATGTTATTGAACA  
AATAGTAATAGAGGATTCGCTGTTGAAACAAGTTGTCCAAGCAATGTTATATTCAATTTTATACTTATTGGGAAA  
GTGTGAGTTAATATTGGACACATTTTATCCTGATCCACAGTGGAGTTTTAGTAATTATATTTGTTGATTTCTTC  
ATTTTGTCTTCTGGTATAAAAGTAGAGATAATGTGTAGTCACTTCTGATTTAGTGAAACCAATTGTAATAATTGT  
GGAAATGTTTTGTCTTTAAGTGTAAATATTTTAAATTTGACATACCCTAATGTTAATAATAAAAGAAGTATTT  
GCATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 1092**

MEIRLDTLSASLGRSSTLNDCNLEDKLAWYEGEAYMWHHWKPPENPLWTCCLDFQIAQVGPWDYCSCCIRHTRLK  
SSCSDMDLLHSWRSSSFNGFDRFRNNSLSKPDDSTEAEHGDPTNGSGEQSKTSNNGGGLGKKMRAISWTMKKKVG  
KKYIKALSEEKDEEDGENAHPYRNSDPVIGTHTEKVS LKASDSMDSLYSGQSSSSGITSCSDGTSNRDSFRLDDD  
GPYSGPFCGRARVHTDFTPSPYD TDSLKIKKGD IIDIICKTPMGMTGMLNNKVG NFKFIYVDVISEEEAAPKKI  
KANRRSNSKKS KTLQEFLER IHLQEY TSTLLNGYETLED LKDIKESH LIELNIENPDDRRRLLSAAENFLEEEI  
IQEQENEPEPLSLSSDISLNKSQLDDCPRDSGCYISSGNSDNGKEDLESENLSDMVHKIIITEPSD

**FIGURE 1093**

CGGGAATCCCTGCAGCTGAGCCTGTCTCTCACGGGACCGGGAAGCTGGAGAGAGCCCCAACCCCTGCCCCGCTGGGG  
CCGAGCTCCCTGCTCCTGCAGCAGTCCCATGCCCCACACTCTGAGTCTGCCCTATCCACAGCTGCTGGGCCTCTC  
TGTGGCCACCATGGTGACTCTTACCTACTTCGGGGCCCACTTTGCTGTCATCCGCCGAGCGTCCCTGGAGAAGAA  
CCCGTACCAGGCTGTGCACCAATGGGCCTTCTCTGCGGGGTTGAGCCTGGTGGGCCTCCTGACTCTGGGAGCCGT  
GCTGAGCGCTGCAGCCACCGTGAGGGAGGCCAGGGCCTCATGGCAGGGGGCTTCCTGTGCTTCTCCCTGGCGTT  
CTGCGCACAGGTGCAGGTGGTGTCTGGAGACTCCACAGCCCCACCCAGGTGGAGGACGCCATGCTGGACACCTA  
CGACCTGGTATATGAGCAGGCGATGAAAGGTACGTCCCACGTCCGGCGGCAGGAGCTGGCGGCCATCCAGGACGT  
GTTTCTGTGCTGTGGGAAGAAGTCTCCTTTCAGCCGTCTGGGGAGCACAGAGGCTGACCTGTGTCAGGGAGAGGA  
GGCGGCGAGAGAGGACTGCCTTCAGGGCATCCGGAGCTTCCTGAGGACACACCAGCAGGTGCGCTCCAGCCTGAC  
CAGCATCGGCCTGGCCCTCACGGTGTCCGCCTTGCTCTTCAGCTCCTTCCTGTGGTTTGCCATCCGCTGTGGCTG  
CAGCTTGGAACCGCAAGGGCAAATACACCCTGACCCACGAGCATGTGGCCGCCAGCCCCAGGAGCCCAGCCTCTT  
GAGATGCTCCCAGGGTGGACCCACACATTGTCTCCACTCCGAAGCAGTTGCTATTGGTCCAAGAGGATGCTCGGG  
TAGTCTTCGGTGGCTGCAGGAGAGCGATGCTGCGCCTCTGCCCCCTCTCCTGCCACCTGGCTGCCCACAGAGCTCT  
CCAGGGCAGAAGTCGCGGTGGGCTCAGTGGGTGCCCTGAGCGGGGTCTCTCAGACTGACGTCAGGCCTTGGTGGG  
CTGCACTCTCACCTGGAGGCTCCGGGGAAGCATCTGCCTCCAGGACCATTGAGGCTGTTGACAAGTCAACTCCTC  
ATGGCTGTAGGACTGAGGTTCCCAAGTCCTTGTCCCTGGTCCTGTGGTCCCTCCACCTTCAAACCAGCAATGGTG  
CATTGAGCAAATTGTGGTCAAATATACATCACATCAAATTTACCATCTTAAAAAAA

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**FIGURE 1094**

MVTLTYFGAHFAVIRRASLEKNPYQAVHQWAFSAGLSLVGLLTLGAVLSAAATVREAQGLMAGGFLCFLAFCAQ  
VQVFWRLHSPQTQVEDAMLDTYDLVYEQAMKVSVLWEEVSFQPSGEHRG

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**FIGURE 1095**

GGAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAATCTCACTCATTGTTCATATATTGGTCTCTG  
 AGGTCCCTTCTAGGCTCTGACAACTGGAACTCTGAAAATAGACATATTG**ATGT**CCTTTGACTGTTGGAAACCTTG  
 CAGAGCAAGAATTTGTAACCATTGCACGTCCTACCGTGTGCCTGAGGGCACATGTTGAGATATGGATTTCTTAA  
 TCGCACTGGCCACGAAAAGTTCAAGAAAAATATGTTTGAGAATTTTCGACACTTTTATTTATTCCTGTGTGTATG  
 AAGATCGAGAAAAAAAAAATGTATTACCCACCAAAGACATTAAGGCTGTGCAATCCTCCAGATTACCTTTGA  
 GTGATGATCTTCTAGAATCCTTATTGTCAAGGTTTGAAGACAGTGAAAAACAAATAGATTATAAGTCATTTTTCT  
 CTGCCCTGAACTGGAGAAAGAATCCAGCGCCTGAATTGCAACCAGCATCATACCTTAAAGAGAGATGTGAAGATG  
 TTTGGCTTGGTATGCCATCACCTATTCCTGCGAAATACATTGACTACTGGACCTTTTTGAAGGACGCGTTTGGCT  
 TAGAGGAGGA**TAA**CCATGCCAGTTTTGGTCAATTCTCTATGATTTACTTCTCTCATTTTGCCACATTTACTTTA  
 GTAGATATAATTTTATTAAAAACAAAAAGAAACAAGGTTTATATTAAATGGAAATCCATAAACCAACAATTAATC  
 CTATTTTGTGATGTTAGTTTTACAGAACATCATGTTACATTGCCGACGTACTGTTACTATTTAAATGCCATCTT  
 AAAACATGTTGAATATTTTTATTATATGTATGGTTTATTAATACCAAAAAATCTTCTGATAATTTTGTATCCAAC  
 ATAATTTGATTCACTACTATATGAACAGAAAATGACTTTTGAAGGTTATACATGACAATACAAAATCAAATTATA  
 TCACAGCAATAAGTTGTGATTCTATTAAACATTTTTTGAAACCTTTTGTACACGTTTATTACTTACATAATTAAGT  
 TTTGTAGCAACCCACCTCATCAAATAATTCTTAAACCTCTCTAGAGTAAATATATTTATCTTTTGAACCTTAGTA  
 AAGCTATGGGAAGAAAAAGAACCTCCAACACACACACACACACACACACACGACGTCACACACACTGGAAA  
 CATATGCAGTATTTATATTTGTAATGCCCTTTTTTCTATCTAAAGTCAGCTTGTTAGCCTAGGAATATATGCATG  
 TGTGTATAATTATAGTTTGACCAAACTTTATTATGTCTAAATATTTACAAATGTGAAAGCTGAAGATTTTGAG  
 ATTTTTGTTTTTTTTTTGGTTTGTTTTACACACACATCCACGCGCCCCACCCTAGAGGTTTAAATATTCAGAAA  
 CTACAACATTTTCCCCTGCATTTTCTAGTTCTATTTTATTTTCTTCAGCAGAACTCTTGTCATGTAGTGTA  
 CATTTGATTAAACCCATAGCCATGTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1096**

MSLTVGNLAEQEFVTIARHYRVPEGTCSDMDFLIALAHEKFKKNMFFENFDTFIYSCVYEDREKKNVLPTKDIKRL  
CKSSRLPLSDDLLESLLSRFEDSEKQIDYKSFFSALNWRKNPAPELQPASYLKERCEDVWLGMPSPIPAKYIDYW  
TFLKDAFGLEEE

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**FIGURE 1097**

ATTTTCATGTTATACTTAATAAAACAAAACATACCTGTATACACACACATTCACTCACATTGAAG**ATG**CAAGATGA  
AGAAAGATACATGACATTGAATGTACAGTCAAAGAAAAGGAGTTCTGCCCAAACATCTCAACTTACATTTAAAGA  
TTATTCAGTGACGTTGCACTGGTATAAAATCTTACTGGGAATATCTGGAACCGTGAATGGTATTCTCACTTTGAC  
TTTGATCTCCTTGATCCTGTTGGTTTTCTCAGGGAGTATTGCTAAAAATGCCAAAAGGAAGTTGTTCAAATGCCAC  
TCAGTATGAGGACACTGGAGATCTAAAAGTGAATAATGGCACAAGAAGAAATATAAGTAATAAGGACCTTTGTGC  
TTCGAGATCTGCAGACCAGACAGTACTATGCCAATCAGAATGGCTCAAATACCAAGGGAAGTGTTATTGGTTCTC  
TAATGAGATGAAAAGCTGGAGTGACAGTTATGTGTATTGTTTGAAAGAAAATCTCATCTACTAATCATACATGA  
CCAACTTGAAATGGCTTTTATACAGAAAAACCTAAGACAATTAACTACGTATGGATTGGGCTTAACCTTTACCTC  
CTTGAAAATGACATGGACTTGGGTGGATGGTTCTCCAATAGATTCAAAGATATTCTTCATAAAGGGACCAGCTAA  
AGAAAACAGCTGTGCTGCCATTAAGGAAAGCAAAATTTTCTCTGAAACCTGCAGCAGTGTTTTCAAATGGATTG  
TCAGTAT**TAG**AGTTTGACAAAATTCACAGTGAAATAATCAATGATCACTATTTTTGGCCTATTAGTTTCTAATAT  
TAATCTCCAGGTGTAAGATTTTAAAGTGCAATTAAATGCCAAAATCTCTTCTCCCTTCTCCCTCCATCATCGACA  
CTGGTCTAGCCTCAGAGTAACCCCTGTTAACAACTAAAATGTACACTTCAAATTTTTACGTGATAGTATAAAC  
CAATGTGACTTCATGTGATCATATCCAGGATTTTTATTTCGTCGCTTATTTTATGCCAAATGTGATCAAATTATGC  
CTGTTTTTCTGTATCTTGCGTTTTAAATTCTTAATAAGGTCCTAAACAAAATTTCTTATATTTCTAATGGTTGAA  
TTATAATGTGGGTTTATACATTTTTTACCCTTTTGTCAAAGAGAATTAACTTTGTTCAGGCTTTTGCTACTCT  
TCACTCAGCTACAATAAACATCCTGAATGTTTTCTTAAAAAA

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**FIGURE 1098**

MQDEERYMTLNVQSKKRSSAQTSQLTFKDYSVTLHWYKILLGISGTVNGILTTLISLILLVSQGVLLKCQKGSC  
SNATQYEDTGDLKVNNGTRRNISNKDLCASRSADQTVLCQSEWLKYQGKCYWFSNEMKSWSDSYVYCLERKSHLL  
IIHDQLEMAFIQKNLRQLNYVWIGLNFTSLKMTWTWVDGSPIDSKIFFIKGPAKENSCAAIKESKIFSETCSSVF  
KWICQY

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**FIGURE 1099A**

GAAGGCGTCCCGGCATCGGCCAAGATTCTACATTGCTCATCTGGGCATCTGAGCCTCCTTCGAAGTTTCCTGTCA  
CAACTGTCCTCTTGACAGCATGGATGAGGAGGAAGACAATCTGTCTCTGCTGACCGCACTGCTGGAAGAAAATGA  
GTCAGCCTTGATTGTAATTCAGAAGAAAATAACTTCTTGACGCGGGAAAATGGCGAGCCCGACGCATTTGATGA  
GCTCTTTGATGCCGACGGCGACGGTGAATCTTATACAGAAGAGGCTGATGATGGAGAAAACAGGAGAGACAAGAGA  
CGAAAAGGAAAATCTGGCCACTCTCTTTGGAGATATGGAGGACTTAACAGATGAAGAAGAAGTTCCCGCATCACA  
GTCAACTGAAAATAGGGTCTCTCCCTGCTCCTGCCCCAGGCGAGAGAAAACGAATGAAGAGTTGCAAGAGGAATT  
AAGGAATTTGCAAGAGCAAATGAAGGCCTTACAAGAGCAGCTAAAAGTAACAACAATTAAACAGACAGCAAGCCC  
AGCCCGTCTGCAAAAATCCCCTGAGAAGTCTCCCCGGCCACCTCTTAAGGAGAGGAGAGTTTCAGAGAATTCAGGA  
GTCAACATGCTTTTCTGCGGAGCTTGATGTCCCTGCGCTACCAAGAACCAAGAGGGTGGCTCGAACACCAAGCC  
TTCACCTCCAGATCCCAAAAGCTCATCTTCAAGGATGACAAGTGCACCCTCCCAACCCCTACAGACGATTTCTCG  
GAACAAACCTAGTGGGATAACTAGAGGTCAAATTGTGGGGACCCCAAGGAGTTCTGGGGAAACGACTCAACCCAT  
CTGTGTGGAAGCCTTCTCTGGTCTGCGGCTCAGGCGGCCTCGAGTATCCTCCACAGAAATGAACAAGAAAATGAC  
CGGCCGAAAACCTGATCAGACTGTCTCAGATCAAGGAAAAGATGGCCAGAGAGAAGCTGGAAGAAATAGATTGGGT  
GACATTTGGGGTTATATTGAAGAAGGTTACGCCACAGAGTGTGAATAGTGGAAAAACCTTCAGCATATGGAACT  
GAATGATCTTCGTGACCTGACACAATGTGTGTCTTGTCTTATTTGGAGAAGTTCACAAAGCGCTCTGGAAGAC  
GGAGCAGGGGACTGTCTAGGGATCCTCAATGCCAACCCCATGAAGCCCCAAGGATGGTTTCAGAGGAGGTGTGTTT  
ATCTATCGATCATCCTCAGAAGGTCTTAATTATGGGTGAAGCTCTTGACCTGGGAACCTGTAAAGCCAAGAAGAA  
GAATGGAGAGCCGTGCACGCAGACTGTGAATTTGCGTGACTGTGAGTACTGTGAGTACCATGTCCAGGCTCAGTA  
CAAGAAGCTCAGTGCAAAGCGTGCGGATCTGCAGTCCACCTTCTCTGGAGGACGAATTCACAAAGAAGTTTGCCCG  
CAGAGGCACCAGCCTCAAAGAACGGCTGTGCCAAGATGGCTTTTACTACGGAGGGGTTTCTTCTGCCTCGTATGC  
AGCTTCAATTGCAGCAGCTGTGGCTCCTAAGAAGAAGATTCAAACCACTCTGAGTAATCTGGTTGTTAAGGGCAC  
AACTTGATCATCCAGGAAACACGGCAAAAACCTCGGAATACCCAGAAGAGCCTGTCTTGCTCTGAGGAGTTCAA  
GGAACCTGATGGACCTGCCGACGTGTGGAGCCAGGAACCTTAAACAACATTTAGCCAAAGCCTCAGCTTCAGGGAT  
TATGGGGAGCCCCAAAACAGCCATCAAGTCCATCTCGGCCTCAGCACTCTTGAAGCAACAGAAGCAGCGGATGTT  
GGAGATGAGGAGAAGGAAATCAGAAGAATACAGAAGCGATTTCTGCAGAGCTCAAGTGAAGTTGAGAGCCCAGC  
TGTGCCATCTTCATCAAGACAGCCCCCTGCTCAGCCTCCACGGACAGGATCCGAGTTCCCCAGGCTGGAGGGAGC  
CCCCGCCACAATGACGCCCAAGCTGGGGCGAGGTGTCTTGAAGGAGATGATGTTCTCTTTTATGATGAGTCACC  
ACCACCAAGACCAAAAACCTGAGTGCTTTAGCAGAAGCCAAAAGTTAGCTGCTATCACCAAAATTAAGGGCAAAAGG  
CCAGGTTCTTACAAAAACAAACCCAAACAGCATTAGAAGAAAACAAAAGGACCCTCAGGACATCCTGGAGGTGAA  
GGAACGTGTAGAAAAAAACACCATGTTTTCTTCTCAAGCTGAGGATGAATTGGAGCCTGCCAGGAAAAAAAGGAG  
AGAACAACCTTGCTATCTGGAATCTGAGGAATTTAGAAAATCCTAAAAGCAAAATCAAAACACACAGGCATCCT  
GAAAGAGGCCCGAGGCTGAGATGCAGGAGCGCTACTTTGAGCCACTGGTGAAAAAAGAACAATGGAAGAAAAGAT  
GAGAAACATCAGAGAAGTGAAGTGCCGTGTCTGACATGCAAGACGTGCGCCTATACCCACTTCAAGCTGCTGGA  
GACCTGCGTCAGTGAGCAGCATGAATACCACTGGCATGATGGTGTGAAGAGGTTTTTCAAATGTCCCTGTGGAAA  
CAGAAGCATCTCCTTGACAGACTCCCGAACAAGCACTGCAGTAAGTGTGGCCTTACAAATGGGAACGGGACGG  
AATGCTAAAGGTATGCCATTTGCGTACTAATTTTTTGACTCTTTTAGTGACCCATGCTAATAATGTGGAACCATC  
TCCTATTAAATATTTTCATTTTTCTAGGAAAAGACTGGTCCAAAGATAGGAGGAGAACTCTGTTACCAAGAGG  
AGAAGAACATGCTAAATTTCTGAACAGCCTTAAATAACCCGAACCTCAGACATTTCCACAGACTTCTGGCCT  
CCTGTGACTCTGGAAAGCAAAGGATTGGCTGTGTATTGTCCATTGATTCTGATTGACGCCGTCAAAAACAAATG  
CTTGTTAAGCCCATAGCTTTGCCCTGCTTACTTTCTGCCATTGGGTTGGTTGATACCACATTTAACATTGACAT  
TTAAGTGGAAAACCAAGTTATCATTGTCTTTCTAAGCTCAGTGTGGATGATTGCATTACTTCATTCACTGAAGT  
TTTTGCCCAAAAATTGGAAGGTAAACAGAGAGCTATGTTTCTGTATCTTTTGGTTATAGAGTGTTCACTTCTTTA  
TCATAACAAAATTTAGTGTTTATACGAACACCCAGAGGCAAAAGAATTTGGCTTAATTTCTCACTCCAGGTAAGT  
AGCTTAACTTCTGGGCTTCAGTTTTCTCATCTGTAAAATCAGGAAGATTGGACTAAGTGATCCTGAAATGTATTT  
TTTAGCACTGGATTTCTACAAATAATAAACTTTCCCATCTAGATAATGATGATCACATAGTCTTGATGTACGGA  
CATTAAAAGCCAGATTTCTTCATTCAATTCTGTTATCTCTGTTTTACTCTTTGAAATTGATCAAGCCACTGAATC  
ACTTTGCATTTTCAGTTTATATATAGAGAGAGAAAGAAGGCTGTCTGCTCTTACATTATTGTGGAGCCCTGTGATA  
GAAATATGTAAAATCTCATATTATTTTTTTTTTAAATTTTTTTTATTTTATGACAGGGTCTCACTATGTCACCT



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**FIGURE 1099B**

GGCTGGAGTGCAGTAGTGCGATCGCGGCACACTGCAGCCTTGGCTTCCCTGGGCTCAAGCAGTCCTCCACCTCA  
GTCTCCCAAATAGCTAGGACTACAGGCGTGCGTGACCAAGCCCAGCTAATTTTTGCATTTTTTGTAGAGATGGGG  
TTTTGCCATGTTGCTCAGGCTGGTCTCAAACCTCCTGAGCACTAGCAATCCACCCACCTCTGTTTTCAAAAAAAAA  
AAAAAATGAAAGGTCAACCCCTATGCAAATTACCACAGCAAAGGTTTCATTGAGGAGATTCTTCCATCTGGGCA  
ACCTGGTTTTTCAAATATCATTGACCTAAGTGAATGTTGATACTAGCTAAAGATTGGGTAAATTGGTTGAATTA  
TTGTATTGAAGCTTGAGCTGTAGCTAAAAGTAATTTAGGTTTCCCCTAAGATGTTATTATGTTAGGGACATAACA  
CTTTTGGGAGGTTGTTGTGGGAGATGGTTGATTTAGGTTTTCAAAAGCTAGAAATAAAATTTACATGCCTTAGAT  
TTCATAAAATTCTGCTCTAATTGGGTGGAAGGTGCTGTATCTAACTTGTGTTCCCTCCTAAGGTTATGTCCTAATA  
ACTATTCTTTTAGGAGTATACTTCTACTTTATAGAAGGTTGCTTTTCTTTTAATTTTTTCTAACAAAGAAAAGA  
ATAAAGTATTTATTAATAAGAACCAGAAAGCACTTGAAACTGATGTTTTTAATGGCTCATTTAGGGTAGATTTAT  
TTATCTCATTAACCTAAAACAGCTATGTGTATGAAATAGGTCACAACAGAACTGAACACCAGGTTGGTGTCTGA  
GCAATCCCTTTCTTATGGGAAAAACAATGTTCTTGTGTTGAACAGAGGGTATCATTGCAGTCAGTATTCACGTGTA  
TATTGTTATATAAGTTGTATAATATGCTTGTAAGGCTGAGGGTGAGCTGTATCTGGATGCCTTTTTACAATTG  
ATTTTAACTTTTAAATAAAATTTAAACATAAAAAAAAAAAAAA

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**FIGURE 1100**

MDEEEDNLSLLTALLEENESALDCNSEENNFLTRENGEPDAFDELFDADGDGESYTEEADDGETGETRDEKENLA  
TLFGDMEDLTDEEEVPASQSTENRVLPAPAPRREKTNEELQEELRNLQEQMKALQEQLKVTTIKQTASPARLQKS  
PEKSPRPPLKERRVQRIQESTCFAELDVPALPRTKRVARTPKPSPPDPKSSSSRMTSAPSQPLQTISRNPSPGI  
TRGQIVGTPGSSGETTQPICVEAFSGLRLRRPRVSSTEMNKKMTGRKLIRLSQIKEKMAREKLEEIDWVTFGVIL  
KKVTPQSVNSGKTFSIWKLNDLRDLTQCVSLFLFGEVHKALWKTEQGTVVGILNANPMKPKDGSSEVCLSIDHPQ  
KVLIMGEALDLGTCKAKKKNGEPCQTQTVNLRDCEYCYHVQAQYKKLSAKRADLQSTFSGGRIPKKFARRGTSK  
ERLCQDGFYYGGVSSASYAASIAAAVAPKKKIQTTLNLVVKGTNLI IQETRQKLGIPQKSLSCSEEFKELMDLP  
TCGARNLKQHLAKASASGIMGSPKPAIKSISASALLKQKQRMLEMRRRKSEEIQKRFLQSSSEVESPAVPSSSR  
QPPAQPPRTGSEFPRLEGAPATMTPKLGRGVLEGDDVLFYDESPPPRPKLSALAEAKKLAAITKLRAKGQVLTKT  
NPNSIKKKQKDPQDILEVKERVEKNTMFSSQAEDELEPARKKRREQLAYLESEEFQKILKAKSKHTGILKEAEAE  
MQERYFEPLVKKEQMEEKMRNIREVKCRVVTCKTCAYTHFKLLETVCVSEQHEYHWHHDGVKRFFKCPCGNRSISLD  
RLPNKHCSNCGLYKWERDGMMLKVCHLRTNF

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**FIGURE 1101**

ACCGTCTTCCGCCGCACGTGGATTACAGCGCG**ATG**CCCAAATCCAAGCGCGACAAGAAAGTCTCCTTAACCAAAAC  
TGCCAAGAAAGGCTTGAATTGAAACAAAACCTGATAGAAGAGCTTCGGAAATGTGTGGACACCTACAAGTACCT  
TTTCATCTTCTCTGTGGCCAACATGAGGAACAGCAAGCTGAAGGACATCCGGAACGCCTGGAAGCACAGCCGGAT  
GTTCTTTGGCAAAAACAAGGTGATGATGGTGGCCTTGGGTTCGGAGCCCATCTGATGAATACAAAGACAACCTGCA  
CCAGGTCAGCAAAAGGTTGAGGGGTGAGGTGGGTCTCCTGTTACCAACCGCACAAAGGAAGAGGTGAATGAGTG  
GTTACAGAAATACACAGAAATGGACTACGCCCCGAGCTGGTAACAAAGCAGCTTTCCTGTGAGCCTGGATCCAGG  
GCCCCCTGGAGCAGTTCCTCCACTCCATGGAGCCACAGCTCAGGCAGCTGGGCCTGCCACCGCCCTCAAGAGAGG  
TGTGGTGACTCTGCTGTCTGACTACGAGGTGTGCAAGGAGGGCGATGTGCTGACCCAGAGCAGGCTCGCGTCCT  
GAAGCTTTTGGGTATGAGATGGCTGAATTCAAGGTGACCATCAAATACATGTGGGATTACAGTCGGGAAGGTT  
CCAGCAGATGGGAGACGACTTGCCAGAGAGCGCATCTGAGTCCACAGAAGAGTCAGACTCAGAAGATGATGACT**TC**  
**AA**AGGGACTCGGGACTGAAGGTCTCCTGGAAGCTTCTGGGTCTCACTGGACCATCAGGACTGCTGCCGCCCCCTCT  
GGAGAGAGCAGCTTTTTATTGTCTGTAGACAGGGAACATGATGGGCACTGACCTCCTGTAAAGAATAAACTGT  
GGGCCGGGCGCGGTGGCTCACGCCTGGAATCCCAGCACTTTGGGAAGCCGAGGTGGGCAGATCATAAGGTCAGGA  
GATTAAGACCATCCTGGCTAACACGGTGAAACCCCGTCTCTACTAAAAATAGAAAAAAAAGTAGTTGGGCATAG  
TGGCATGTGCCTGTAGTCCCAGCTACTCAGGAGGCTGAGGCAGGAGAATCACTTGAACCCGGGAGGTGGAGGTTG  
CCGTGAGTTGAGATTGGACCACTGCTCTCCAGCCTGGGCAACAGAGTAAACTCTGTCCC

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**FIGURE 1102**

MPKSKRDKKVSLTKTAKKGLELKQNLIEELRKCVDTYKYLFI~~FS~~VANMRNSKLKDIRNAWKHSRMFFGKNKVMV  
ALGRSPSDEYKDNLHQVSKRLRGEVGLLFTNRTKEEVNEWFTKYTEM~~D~~YARAGNKA~~A~~FTVSLDPGPLEQFPHSME  
PQLRQLGLPTALKRGVVTLLSDYEVCKEGDVLTP~~EQ~~ARVLKLF~~GY~~EMAEFKVTIKYMWDSQSGRFQ~~Q~~MGDDL~~P~~ES  
ASESTEESDSEDD

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**FIGURE 1103**

GAGGCGGGAGGATGAAGTTGATTGACTATGGTCTCTCCGGCTACCAGGAAGAGTCTGCCGAAGGTGAAGGCCATG  
GACTTCATCACCTCCACAGCCATCCTGCCCCTGCTGTTTCGGCTGCCTGGGCGTCTTCGGCCTCTTCCGGCTGCTG  
CAGTGGGTGCGCGGGAAGGCCTACCTGCGGAATGCTGTGGTGGTGATCACAGGCGCCACCTCAGGGCTGGGCAAA  
GAATGTGCAAAAGTCTTCTATGCTGCGGGTGCTAAACTGGTGCTCTGTGGCCGGAATGGTGGGGCCCTAGAAGAG  
CTCATCAGAGAACTCACCGCTTCTCATGCCACCAAGGTGCAGACACACAAGCCTTACTTGGTGACCTTCGACCTC  
ACAGACTCTGGGGCCATAGTTGCAGCAGCAGCTGAGATCCTGCAGTGCTTTGGCTATGTGCACATACTTGTCAAC  
AATGCTGGGATCAGCTACCGTGGTACCATCATGGACACCACAGTGGATGTGGACAAGAGGGTCATGGAGACAAAC  
TACTTTGGCCAGTTGCTCTAACGAAAGCACTCCTGCCCTCCATGATCAAGAGGAGGCAAGGCCACATTGTGCC  
ATCAGCAGCATCCAGGGCAAGATGAGCATTCTTTTCGATCAGCATATGCAGCCTCCAAGCACGCAACCCAGGCT  
TTCTTTGACTGTCTGCGTGCCGAGATGGAACAGTATGAAATTGAGGTGACCGTCATCAGCCCCGGCTACATCCAC  
ACCAACCTCTCTGTAAATGCCATCACCGCGGATGGATCTAGGTATGGAGTTATGGACACCACCACAGCCCAGGGC  
CGAAGCCCTGTGGAGGTGGCCAGGATGTTCTTGCTGCTGTGGGGAAGAAGAAGAAAGATGTGATCCTGGCTGAC  
TTACTGCCCTTCCTTGCTGTTTATCTTCGAACTCTGGCTCCTGGGCTCTTCTTCAGCCTCATGGCCTCCAGGGCC  
AGAAAAGAGCGGAAATCCAAGAACTCCTAGTACTCTGACCAGCCAGGGCCAGGGCAGAGAAGCAGCACTCTTAGG  
CTTGCTTACTCTACAAGGGACAGTTGCATTTGTTGAGACTTTAATGGAGATTTGTCTCACAAGTGGGAAAGACTG  
AAGAAACACATCTCGTGAGATCTGCTGGCAGAGGACAATCAAAAACGACAACAAGCTTCTTCCCAGGGTGAGGG  
GAAACACTTAAGGAATAAATATGGAGCTGGGGTTTAACACTAAAACTAGAAATAAACATCTCAAACAGTAAGAG  
TTGTAGTCTTCCAGGACTAGAACCTTGTGTCCTTTGAATTCTCGCCCTGCCAGCTCCTAGAAATAGTTTCAATCT  
TGGAATCAGATGTTATGTCACCTGAAA

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**FIGURE 1104**

GGCACGAGGGCCAGGAACGCCAGCCGTTACGCGTTCCGGTCCTCCTTGGCTGACTCACCGCCCTCGCCGCCGCAC  
**CATG**GACGCCCCCAGGCAGGTGGTCAACTTTGGGCCTGGTCCCGCCAAGCTGCCGCACTCAGTGTTGTTAGAGAT  
 ACAAAGGAATTATTAGACTACAAAGGAGTTGGCATTAGTGTTCTTGAAATGAGTCACAGGTCATCAGATTTTGC  
 CAAGATTATTAACAATACAGAGAATCTTGTCGGGAATTGCTAGCTGTTCCAGACAACATAAGGTGATTTTTCT  
 GCAAGGAGGTGGGTGCGGCCAGTTCAGTGCTGTCCCTTAAACCTCATTGGCTTGAAAGCAGGAAGGTGTGCGGA  
 CTATGTGGTGACAGGAGCTTGGTCAGCTAAGGCCGAGAAGAAGCCAAGAAGTTTGGGACTATAAATATCGTTCA  
 CCCTAACTTTGGGAGTTATACAAAAATTCCAGATCCAAGCACCTGGAACCTCAACCCAGATGCCTCCTACGTGTA  
 TTATTGCGCAAATGAGACGGTGCATGGTGTGGAGTTTGACTTTATACCCGATGTCAAGGGAGCAGTACTGGTTTG  
 TGACATGTCCTCAAACCTCCTGTCCAAGCCAGTGGATGTTTCCAAGTTTGGTGTGATTTTTGCTGGTGCCAGAA  
 GAATGTTGGCTCTGCTGGGGTCACCGTGGTGATTGTCCGTGATGACCTGCTGGGGTTTGCCCTCCGAGAGTGCCC  
 CTCGGTCCTGGAATACAAGGTGCAGGCTGGAACAGCTCCTTGTACAACACGCCTCCATGTTTCAGCATCTACGT  
 CATGGGCTTGGTTCTGGAGTGGAATAAAAACAATGGAGGTGCCGCGGCCATGGAGAAGCTTAGCTCCATCAAATC  
 TCAAACAATTTATGAGATTATTGATAATTCTCAAGGATTCTACGTTTGTCCAGTGGAGCCCCAAAATAGAAGCAA  
 GATGAATATTCCATTCCGCATTGGCAATGCCAAAGGAGATGATGCTTTAGAAAAAGATTTCTTGATAAAGCTCT  
 TGAACCAATATGTTGTCCTTGAAAGGGCATAGGTCTGTGGGAGGCATCCGGGCCTCTCTGTATAATGCTGTAC  
 AATTGAAGACGTTTCAAGCTGGCCGCCTTCATGAAAAAATTTTTGGAGATGCATCAGCTAT**TGA**ACACATCCTAA  
 CCAGGATATACTCTGTTCTTGAACAACATACAAAGTTTAAAGTAACCTTGGGGATGGCTACAAAAGTTAACACAG  
 TATTTTTCTCAAATGAACATGTTTATTGCAGATTCTTCTTTTTTGAAAGAACAACAGCAAAACATCCACAACCTCT  
 GTAAAGCTGGTGGGACCTAATGTCACCTTAATTCTGACTTGAACCTGGAAGCATTTTAAGAAATCTTGTTGCTTTT  
 CTAACAAATTCCCGCGTATTTTGCCTTTGCTGCTACTTTTTCTAGTTAGATTTCAAACCTTGCCTGTGGACTTAAT  
 AATGCAAGTTGCGATTAATTATTTCTGGAGTCATGGGAACACACAGCACAGAGGGTAGGGGGGCCCTCTAGGTGC  
 TGAATCTACACATCTGTGGGTCTCCTGGGTTTACGCGCTGTTGATTCAAGGTCAACATTGACCATTGGAGGAGT  
 GGTTTAAGAGTGCCAGGCGAAGGGCAAACCTGTAGATCGATCTTTATGCTGTTATTACAGGAGAAGTGACATACTT  
 TATATATGTTTATATTAGCAAGGTCTGTTTTTAATACCATATACTTTATATTTCTATACATTTATATTTCTAATA  
 ATACAGTTATCACTGATATATGTAGACACTTTTAGAATTTATTAAATCCTTGACCTTGTGCATTATAGCATTCCA  
 TTAGCAAGAGTTGTACCCCTCCCAAGTCTTCGCCTTCTCTTTTTAAGCTGTTTTATGAAAAAGACCTAGAAGT  
 TCTTGATTCATTTTTTACCATTCTTTCCATAGGTAGAAGAGAAAGTTGATTGGTTGGTTGTTTTTCAATTATGCCA  
 TTAAACTAAACATTTCTGTTAAATTACCCTATCCTTTGTTCTCTACTGTTTTCTTTGTAATGTATGACTACGAGA  
 GTGATACTTTGCTGAAAAGTCTTTCCCCTATTGTTTATCTATTGTCAGTATTTTATGTTGAATATGTAAAGAACA  
 TTAAAGTCCTAAACATCTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1105**

MDAPRQVVNFGPGPAKLPHSVLLEIQKELLDYKGVGISVLEMSHRSSDFAKIINNNTENLVRELLAVPDNYKVIFL  
QGGGCGQFSAPVPLNLIGLKAGRCADYVVTGAWSAKAAEEAKKFGTINIVHPKLGSYTKIPDPSTWNLNPDASYVY  
YCANETVHGVEFDFIPDVKGAVLVCDMSSNFLSKPVDVSKFGVIFAGAQKNVGSAGVTVVIVRDDLLGFALRECP  
SVLEYKVQAGNSSLYNTPPCFSIYVMGLVLEWIKNNGGAAAMEKLSSIKSQTIIYEIIDNSQGFYVCPVEPQNRSK  
MNIPFRIGNAKGDDALEKRFLDKALELNMLSLKGHRVGGIRASLYNAVTTIEDVQKLAAFMKKFLEMHQL

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**FIGURE 1106**

GGAGGGCCCGCGGCGACAGCGGAGGCAGAGAGGAAGGCGGTTCTGAGAGCTTCAGAGAGCGATGGAAAGCAAAA  
**TGGGTGAATTGCCTTTAGACATCAACATCCAGGAACCTCGCTGGGACCAAAGTACTTTCTGGGCAGAGCCCGGC**  
ACTTTTTTCACTGTTACTGATCCTCGAAATCTGCTGCTGTCCGGGGCACAGCTGGAAGCTTCTCGGAACATCGTGC  
AGAACTACAGGGCCGCGTGGTGACCCAGGGATCACCGAGGACCAGCTGTGGAGGGCCAAGTATGTGTATGACT  
CCGCCTTCCATCCGGACACAGGGGAGAAGGTGGTCCTGATTGGCCGCATGTCAGCCCAGGTGCCCATGAACATGA  
CCATCACTGGCTGCATGCTCACATTCTACAGGAAGACCCCAACCGTGGTGTCTGGCAGTGGGTGAATCAGTCCT  
TCAATGCCATTGTTAACTACTCCAACCGCAGTGGTGACACTCCCATCACTGTGAGGCAGCTGGGGACAGCCTATG  
TGAGTGCCACCACTGGAGCTGTGGCCACGGCCCTGGGACTCAAATCCCTCACCAAGCACCTGCCCCCTTGGTGC  
GCAGATTTGTGCCCTTTGCAGCAGTGGCAGCTGCCAACTGCATCAACATCCCCCTGATGAGGCAGAGAGAGCTGC  
AGGTGGGCATCCCGGTGGCTGATGAGGCAGGTGAGAGGCTTGGCTACTCGGTGACTGCAGCCAAGCAGGGAATCT  
TCCAGGTGGTGATTTCAAGAATCTGCATGGCGATTCTGCCATGGCCATCCCACCACTGATCATGGACACTCTGG  
AGAAGAAAGACTTCCTGAAGCGCCGCCCTTGGCTGGGGGCACCCCTGCAGGTGGGACTGGTGGGCTTCTGCCTGG  
TATTTGCAACCCCCCTGTGCTGTGCCCTATTCCCCCAGAAGAGCTCCATACACATAAGCAACCTGGAACCAGAGC  
TGAGAGCTCAGATCCATGAGCAAAACCCAGCGTTGAAGTGGTCTACTACAACAAGGGGCTTT**TGAGGAGGGT**CAG  
CCTCTGTCCCCCTCCCTCACTTCCTTGGGCTGCTGCTTTAGTGAGTCAATGTCACCCCTACCACTTGGCTATCTGC  
CTAGCACTGGGCAGGGGCCCTTGGTGGGCAGATGGCAATTGAGGGTAGCAACCTATTAGGGTGGGGGAGGGACCTC  
CATAAGGCTTTTCTCCCTTCTCTGGTTTTCAAGATCAGAGCACATAACCCCTCCTGTGCTTGAGTGTCCATGCA  
TATACATACATGATACACATGTGTATGTGTACATTGGGTCTGAAAGCTAGAAGCAGGCATGCTAGCCTAGTATG  
TTCTGACATCTGGCTTCCCTTCTCAGCCTCATGTCCACCTGCCTGCCAGCCAGGCTACAGGTGTGACTTCCTTCT  
CTAAACTGTTACACCAGCCAAGTTATTTTTTGATGGCACCTCATCCCTTCTAGAAATAGGAGGAGCCCCAGGATCT  
CAGGACAGAGACTTATAGACACTAGTAGGACAAAGCGGGCTGAATCCTTCAGGTTTCTGATACCTAGCTCCCCAA  
GCTGACTGGGCTGGCAGAGGAGAACATGTTGAGACAAGGGAGGCAGGGGACTTATGCATCCCTCAGTGCCATCCC  
TTGTATCCTGGAATAGCTCCATTTCCCCTCCTCCTCTCTACCAGACAAAGGAGTGCCTGTGTCTGTACTGCCCT  
CGCTGTCTCCCCCACCACCCTACTTGACAGCGTGGGCATCTTCAGGCACAGCCTTGGGAGTTCTGGTGTGCTCT  
GACATCATGACCTCAAATCTAAATCCTCCAATCCCAACTCCCTTTCCCAAACAAAAGCCACAGAGGCAGAGCAA  
GCATTCCCCCTTTAAGAGCTTCCACTGCACCCCTCCCAAGGGACACAGCGGTAGGAATGGTGCTTAAACTCCACA  
GGTATCAGAGAGGGTGTAACTAGGACATCCTCAAGGGCAGCTAGGCCCCGAATGTACAATGTTAAGACAGGGAAT  
TTTGTTTCCATTGACTTTTTTTTTTTTTTTTAAATGGAGTTTCACTATTTTGCCAGGCTGGAGTGCATGGTGC  
GATCTTGGCTCACTGCAACCTCTGCCTCCTGGGTTCAAGTGATTCTCTTGCCTCAGTCTCCCAGTAGTGGAAT  
TACAGGTGTGTGCTACCACATCTTGCTAGTTTTGTATTTTGTAGCAGAGATGGGGTTTTACCATGTTGGCCAGGC  
TAGTCTCGAACTCCTGACCTCAGGTGATCCACCTGCCTTGGCCTCCCAAAGCACTGGGATTACAAGCATGAGCCA  
CTGTGCCCAGCCTGTTCCACTGACATTTCTTAGACATTACAGAAAACCCACCTTAACCTCTTTTCTTTCTTGA  
GGGTTGGTCTGTCCCCACCTCCACCCTCCACCCCTGGAAGAGGAAGGGCCCGGGCATCAGTGGCTAGTCCAA  
ATAAAATATGGGCTTGGGGATGGAATGGGTGGTGGTAAGTTCACAGAGTGTAGTTAGATCCCAACTCCCATGACC  
TCTGGCTTCAGTGGTGGGTGGGGCAGGGCAGATGAAAGGGCTTCAGTGGGAACCTCTGAGAGCATTTTCTGTTC  
CCCCATCAACCGCCCCCAGTGATAACATCTGTGAAGCCAGCCATTACTCAATAAACTGCAAACCTTGTCTAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 1107**

MGELPLDINIQEPRWDQSTFLGRARHFFTVTDPRNLLLSGAQLEASRNIVQNYRAGVVTPGITEDQLWRAKYVYD  
SAFHPDTGEKVVLIGRMSAQVPMNMTITGCMLTFYRKPTTVVFWQWVNQSFNAIVNYSNRSGDTPITVRQLGTAY  
VSATTGAVATALGLKSLTKHLPPLVGRFVPFAAVAAANCINIPLMRQRELQVGIPVADEAGQRLGYSVTAAKQGI  
FQVVISRICMAIPAMAIPPLIMDTLEKKDFLKRRPWLGAFLQVGLVGFCLVFATPLCCALFPQKSSIHISNLEPE  
LRAQIHEQNPSVEVVYYNKGL

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**FIGURE 1108**

GTGCTTTACTGCGCGCTCTGGTACTGCTGTGGCTCCCCGTCCTGGTGCGGGACCTGTGCCCCGCGCTTCAGCCCT  
CCCCGCACAGCCTACTGATTCCCCTGCCGCCCTTGCTCACCTCCTGCTCGCC**ATGG**AGTCGCTGGTTTTTCGCGCG  
GCGCTCCGGCCCCACTCCCTCGGCCGCAGAGCTAGCCCCGCCGCTGGCGGAAGGGCTGATCAAGTCGCCCCAAGCC  
CCTAATGAAGAAGCAGGCGGTGAAGCGGCACCACCACAAGCACAACCTGCGGCACCGCTACGAGTTCCTGGAGAC  
CCTGGGCAAAGGCACCTACGGGAAGGTGAAGAAGGCGCGGAGAGCTCGGGGCGCCTGGTGGCCATCAAGTCAAT  
CCGGAAGGACAAAATCAAAGATGAGCAAGATCTGATGCACATACGGAGGGAGATTGAGATCATGTCATCACTCAA  
CCACCCTCACATCATTGCCATCCATGAAGTGTGAGAACAGCAGCAAGATCGTGATCGTCATGGAGTATGCCAG  
CCGGGGCGACCTTTATGACTACATCAGCGAGCGGCAGCAGCTCAGTGAGCGCAAGCTAGGCATTTCTTCCGGCA  
GATCGTCTCTGCCGTGACTATTGCCATCAGAACAGAGTTGTCCACCGAGATCTCAAGCTGGAGAACATCCTCTT  
GGATGCCAATGGGAATATCAAGATTGCTGACTTCGGCCTCTCCAACCTCTACCATCAAGGCAAGTTCCTGCAGAC  
ATTCTGTGGGAGCCCCCTCTATGCCTCGCCAGAGATTGTCAATGGGAAGCCCTACACAGGCCCAGAGGTGGACAG  
CTGGTCCCTGGGTGTTCTCCTCTACATCCTGGTGCATGGCACCATGCCCTTTGATGGGCATGACCATAAGATCCT  
AGTGAAACAGATCAGCAACGGGGCCTACCGGGAGCCACCTAAACCCTCTGATGCCTGTGGCCTGATCCGGTGGCT  
GTTGATGGTGAACCCACCCGCCGGGCCACCCTGGAGGATGTGGCCAGTCACTGGTGGGTCAACTGGGGCTACGC  
CACCCGAGTGGGAGAGCAGGAGGCTCCGCATGAGGGTGGGCACCCTGGCAGTGACTCTGCCCGCGCCTCCATGGC  
TGACTGGCTCCGGCGTTCCTCCCGCCCTCCTGGAGAATGGGGCCAAGGTGTGCAGCTTCTTCAAGCAGCATGC  
ACCTGGTGGGGGAAGCACCACCCTGGCCTGGAGCGCCAGCATTTCGCTCAAGAAGTCCCGCAAGGAGAATGACAT  
GGCCAGTCTCTCCACAGTGACACGGCTGATGACACTGCCCATCGCCCTGGCAAGAGCAACCTCAAGCTGCCAAA  
GGGCATTCTCAAGAAGAAGGTGTAGCCTCTGCAGAAGGGGTACAGGAGGACCCTCCGGAGCTCAGCCCAATCCC  
TGCGAGCCCAGGGCAGGCTGCCCCGCTGCTCCCCAAGAAGGGCATTCTCAAGAAGCCCCGACAGCGGAGTCTGG  
CTACTACTCCTCTCCCGAGCCAGTGAATCTGGGGAGCTCTTGGACGAGGCGACGTGTTTGTGAGTGGGGATCC  
CAAGGAGCAGAAGCCTCCGCAAGCTTCAGGGCTGCTCCTCCATCGCAAAGGCATCCTCAAACCTCAATGGCAAGTT  
CTCCAGACAGCCTTGGAGCTCGCGGCCCCACCACCTTCGGCTCCCTGGATGAACCTCGCCCCACCTCGCCCCCT  
GGCCCCGGGCCAGCCGACCCTCAGGGGCTGTGAGCGAGGACAGCATCCTGTCTCTGAGTCTTTGACCAGCTGGA  
CTTGCTGAACGGCTCCAGAGCCCCCACTGCGGGGCTGTGTGTCTGTGGACAACCTCACGGGGCTTGAGGAGCC  
CCCCCTCAGAGGGCCCTGGAAGCTGCCTGAGGCGCTGGCGGCAGGATCCTTTGGGGGACAGCTGCTTTTCCCTGAC  
AGACTGCCAGGAGGTGACAGCGACCTACCGACAGGCACTGAGGGTCTGCTCAAAGCTCACCT**TGAGT**GGAGTAGGC  
ATTGCCCCAGCCGGTCAAGGCTCTCAGATGCAGCTGGTTGCACCCCGAGGGGAGATGCCTTCTCCCCACCTCCC  
AGGACCTGCATCCCAGCTCAGAAGGCTGAGAGGGTTTGCAGTGGAGCCCTGAGCAGGGCTGGATATGGGAAGTAG  
GCAAATGAAATGCGCCAAGGGTTCAGTGTCTGTCTTCAGCCCTGCTGAACGAAGAGGATACTAAAGAGAGGGGAA  
CGGGAATGCCCGCGACAGAGTCCACATTGCCTGTTTCTTGTGTACATGGGGGGGCCACAGAGACCTGGAAAAGAGA  
ACTCTCCAGGGCCCATCTCCTGCATCCCATGAATACTCTGTACACATGGTGCCTTCTAAGGACAGCTCCTTCCC  
TACTCATTCCCTGCCAAGTGGGGCCAGACCTCTTTACACACACATTCCCGTTTCTACCAACCACCAGAAGTGGGA  
TGGTGGCACCCCTAATGTGCATGAGGCATCCTGGGAATGGTCTGGAGTAACGCTTCGTTATTTTTATTTTTATTT  
TTATTTATTTATTTATTTTTTTTGTAGACGGAGTTTCGCTCTTGGTGCCAGGCTAGAGTGCAATGGCGCGATCTCA  
GCTCACCTCAACCTCCGCCTCCCGGGTTCAAGCGATTCTCCTGCCTCAGCCTCCCTAGTAGCTGGGATTACAGGC  
GCCCCGCCACCATGCCCGGCTAATTTTGTATTTTTAGTAGAGACAGGGTTTCTCCATGTTGGTCAGGCTGGTCTCA  
AACTCCCGACCTCAGGTGATCCACCCACCTCGGCCTCCCAAAGTGCTGGGATTACAGGCGTGAGCCACCGCGCCC  
CACCTAACCCTTCCTTATTTAGCCTAGGAGTAAGAGAACACAATCTCTGTTTCTTCAATGGTTCTCTTCCCTTTT  
CCATCCTCCAAACCTGGCCTGAGCCTCCTGAAGTTGCTGCTGTGAATCTGAAAGACTTGAAAAGCCTCCGCCTGC  
TGTGTGGACTTCATCTCAAGGGGGCCAGCCTCCTCTGGACTCCACCTTGGACCTCAGTGACTCAGAACTTCTGCC  
TCTAAGCTGCTCTAAAGTCCAGACTATGGATGTGTTCTCTAGGCCTTCAAGACTCTAGAATGTCCATATTTATTT  
TTATGTTCTTGGCTTTTGTGTTTTAGGAAAAGTGAATCTTGTGTTTTCAATAATGTGAATGCTATGTTCTGGGAA  
AATCCACTATGACATCTAAGTTTTGTGTACAGAGAGATATTTTTGCAACTATTTCCACCTCCTCCACAACCCCC  
CACACTCCACTCCACACTCTTGAGTCTCTTTACCTAATGGTCTCTACCTAATGGACCTCCGTGGCCAAAAAAGTAC  
CATTAAACCAGAAAGGTGATTGGAAAAA

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**FIGURE 1109**

MESLVFARRSGPTPSAAELARPLAEGLIKSPKPLMKKQAVKRHHHKHNLRRHYEFLETLGKGTYGKVKKARESSG  
RLVAIKSIRKDIKDEQDLMHIRREIEIMSSLNHPHIIAIEHVFENSSKIVIVMEYASRGDLYDYISERQQLSER  
EARHFFRQIVSAVHYCHQNRVVHRDLKLENILLDANGNIKIADFGLSNLYHQGKFLQTFCSPLYASPEIVNGKP  
YTGPEVDSWSLGVLLYILVHGTMPFDGHDHKILVKQISNGAYREPPKPSDACGLIRWLLMVNPTRRATLEDVASH  
WWVNWGYATRVGEQEAPHEGGHPGSDSARASMADWLRRSSRPLENGAKVCSFFKQHAPGGGSTTPGLERQHSLK  
KSRKENDMAQSLHSDTADDTAHRPGKSNLKLPGILKKKVSASAEGVQEDPPELSPIPASPGQAAPLLPKKGILK  
KPRQRESGYYSPEPSESGELLDAGDVFVSGDPKEQKPPQASGLLLHRKGILKLNKFSQTALELAAPTTFGSLD  
ELAPPRPLARASRPSGAVSEDSILSSESFDQLDLPERLPEPPLRGCVSVDNLTGLEEPPSEPGSCLRRWRQDPL  
GDSCFSLTDCQEVATYRQALRVCSKLT

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**FIGURE 1110**

GGCACGAGGCCTGGGTCCCGTCACATCCTTCTTGCTCAACCACTGGGTGCACAGGATGGAACTTCTATTCCCTC  
TCTGGAAGACAGCGCGTGGCTTGGCTTCACAGAGTTGTGGCTGGAGACCGAAGCAGCCCTTTCTCAGGCTTACT  
GTCACCACTGTCTGTGTAGGGGAGAGGGGAGTCCGCTCTGTCTGAAGGCCAGAGATGAAGGACAAGTGG  
TAGGCCGGGTGTTTCAAGCTCTTCCAACGCCGACTGCTTCAACTCCGAGCAGGACCACCCAGGACAATTCAAGGG  
AAGCTTTAAAGGAACCAGAAAGGGGCCAGGAGCACTCTTTGCCCAACTTTGCTGGGGGGCAGCACTTCTTTGAAT  
ACCTTCTTGTGTTTCTCTCAAAAAGAAGCGTTCAGAGGATGATTACGAGCCTATAATCACCTACCAATTTCCCA  
AGCGGGAGAACCTGCTTCGGGGTCAGCAGGAGGAGGAGGAGCGGCTGCTCAAAGCTATCCCTTGTCTGCTTCC  
CAGATGGGAATGAGTGGGCATCACTACCGAGTATCCAGGGAGACCTTCTCCTTCGTTCTGACCAATGTGGATG  
GGAGCAGAAAGATTGGATACTGCAGGCGCCTCTTGCCCTGCCGGCCCTGGCCCTCGCCTTCCCAAAGTGTACTGCA  
TCATCAGCTGCATCGGCTGCTTCGGCTTGTCTCCAAGATCCTGGATGAAGTGGAGAAGAGACATCAGATCTCCA  
TGGCTGTCTATCTACCCGTTTCATGCAGGGCCTCCGAGAGGCAGCCTTCCCTGCTCCTGGGAAGACTGTCACTCTCA  
AGAGCTTCATCCCCGACTCAGGCACTGAGTTCAATTCAGTGACACGGCCCCCTGGACTCCCACCTAGAACATGTGG  
ATTTTAGTTCTCTATTGCACTGTCTCAGTTTTGAACAGATACTTCAGATCTTTGCCTCTGCCGTGCTGGAGAGAA  
AAATCATCTTCTGGCGGAAGGTCTCAGCACCTTGTCTCAGTGCAATCCATGCTGCTGCCGCACTGCTCTACCCCT  
TCAGCTGGGCGCACACCTACATCCCTGTTGTCCCTGAGAGCCTTCTGGCCACCGTCTGCTGCCCCACCCCTTCA  
TGGTTGGAGTACAAATGCGCTTCCAGCAGGAGGTTCATGGACAGCCCTATGGAAGAGGTCTGCTGGTCAATCTTT  
GTGAAGGAACCTTCTTAATGTCGGTTGGTGATGAAAAAGACATCCTGCCACCGAAGCTTCAGGATGACATCTTAG  
ACTCTCTTGGTCAGGGGATCAATGAGTTAAAGACTGCAGAACAAATCAACGAGCATGTTTCAGGCCCCCTTTGTGC  
AGTTCTTTGTCAAGATTGTGGGCCATTATGCTTCTATATCAAGCGGGAGGCAAATGGGCAAGGCCACTTCCAAG  
AAAGATCCTTCTGTAAGGCTCTGACCTCCAAGACCAACCGCCGATTTGTGAAGAAGTTTGTGAAGACACAGCTCT  
TCTCACTTTTCATCCAGGAAGCCGAGAAGAGCAAGAATCCTCCTGCAGGCTATTTCCAACAGAAAATACTTGAAT  
ATGAGGAACAGAAGAAACAGAAGAAACCAAGGGAAAAAACTGTGAAATGAAGAGCTGTGGTGAATAAGAATGACTA  
GAGCTACACACCATTTCTGGACTTCAGCCCCTGCCAGTGTGGCAGGATCAGCAAACTGTGAGCTCCCCAAATCC  
ATATCCTCACTCTGAGTCTTGGTATCCAGGTATTGCTTCAAAGTGGTGTCTGAGATTTGGATCCCTGGTATTGAT  
TTCTCAGGACTTTGGAGGGCTCTGACACCATGCTCACAGAACTGGGCTCAGAGCTCCATTTTTTGCAGAGGTGAC  
ACAGGTAGGAAACAGTAGTACATGTGTTGTAGACACTTGGTTAGAAGCTGCTGCAACTGCCCTCTCCCATCATTA  
TAACATCTTCAACACAGAACACACTTTGTGGTCGAAAGGCTCAGCCTCTCTACATGAAGTCTGTGGACATGTAAG  
GACGAGAGTAAAGAGGAAAATCTTATAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1111**

MEGQVVGRVFRRLFQRRLLQLRAGPPQDNSGEALKEPERAQEHSLPNFAGGQHFFEYLLVSLKKRSEDDYEP I I  
TYQFPKRENLLRGQEEEEERLLKAIPLCFDPDGNEWASLTEYPRETF SFVLTNVDGSRKIGYCRLLPAGPGPRL  
PKVYCIISCIGCFGLFSKILDEVEKRHQISMAVIYPFMQGLREAAFPAPGKTVTLKSFIPDSGTEFISLTRPLDS  
HLEHVDFSSLLHCLSFEQILQIFASAVLERKII FLAEG LSTLSQCIHAAAALLYPFSWAHTYIPVVPESLLATVC  
CPTPFMVGVQMRFQQEVMDSPMEEVLLVNLCEGTF LMSVGDEKDILPPKLQDDILD SLGQG INELKTAEQ INEHV  
SGPFVQFFVKIVGHYASYIKREANGQGHFQERSFCKALTSKTNRRFVKKFVKTQLFSLFIQEAEKSKNPPAGYFQ  
QKILEYEEQKKQKKPREKTVK

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**FIGURE 1112**

TCCCTGTCCTGCGCCCGCGCGCCCGGGAGCCTACCCAGCACGCGCTCCGCGCCCACTGGTTCCCTCCAGCCGCC  
GCCGTCCAGCCGAGTCCCCACTCCGGAGTCGCCGCTGCCGCGGGGACATGGTCCTCTGCGTTCAGGGGTGAGCAC  
CCCCTTGTAAGCTCAGGGCTACTGTTGGGTGTCAGGGAACAAAGTTTTAGACTGCTGCGCTCCAAAGCGGGCACA  
CACATGTACCTAGAACACACCAGCCACTGTCCCCACCATGATGATGACACAGCCATGGACACACCCCTGCCCAGA  
CCTCGTCCCTTTGCTGGCTGTGGAGCGGACTGGGCAGCGGCCCTGTGGGCCCCGTCCCTGGAAGTGCCCAAGCCA  
GTCATGCAGCCCTTGCTGCTGGGGCCTTCCTCGAGGAGGTGGCAGAGGGTACCCAGCCAGACAGAGAGTGAG  
CCAAAGGTGCTGGACCCAGAGGAGGATCTGCTGTGCATAGCCAAGACCTTCTCCTACCTTCGGAATCTGGCTGG  
TATTGGGGTTCCATTACGGCCAGCGAGGCCCCGACAACACCTGCAGAAGATGCCAGAAGGCACGTTCTTAGTACGT  
GACAGCACGCACCCAGCTACCTGTTACGCTGTGAGTGAACCACTCGTGGCCCCACCAATGTACGCATTGAG  
TATGCCGACTCCAGCTTCCGTCTGGACTCCAAGTCTGTCCAGGCCACGCATCCTGGCCTTTCCGGATGTGGTC  
AGCCTTGTGTCAGCACTATGTGGCCTCCTGCACTGCTGATACCCGAAGCGACAGCCCCGATCCTGCTCCACCCCCG  
GCCCTGCCTATGCCTAAGGAGGATGCGCCTAGTGACCCAGCACTGCCTGCTCCTCCACCAGCCACTGCTGTACAC  
CTAAAGTGGTGCAGCCCTTTGTACGCAGAAGCAGTGCCCGCAGCCTGCAACACCTGTGCCGCTTGTGATCAAC  
CGTCTGGTGGCCGACGTGGACTGCCTGCCACTGCCCCGGCGCATGGCCGACTACCTCCGACAGTACCCCTTCCAG  
CTCTGACTGTACGGGGCAATCTGCCACCCCTACCCAGTCGCACCCTGGAGGGGACATCAGCCCCAGCTGGACTT  
GGGCCCCCACTGTCCCTCCTCCAGGCATCCTGGTGCCTGCATACCTCTGGCAGCTGGCCCAGGAAGAGCCAGCAA  
GAGCAAGGCATGGGAGAGGGGAGGTGTACACAACCTTGAGGTAAATGCCCCAGGCCGCATGTGGCTTCATTAT  
ACTGAGCCATGTGTCAGAGGATGGGGAGACAGGCAGGACCTTGTCTCACCTGTGGGCTGGGCCAGACCTCCACT  
CGCTTGCTGCCCTGGCCACCTGAACTGTATGGGCACTCTCAGCCCTGGTTTTTCAATCCCCAGGGTCGGGTAGG  
ACCCCTACTGGCAGCCAGCCTCTGTTTCTGGGAGGATGACATGCAGAGGAAGTGAATCGACAGTACTAGTGAC  
CCCTTGTGAGGGGTAAGCCAGGCTAGGGGACTGCACAATTATACACTATTTATTTATTTATTTCTCCTTGGGGTT  
GGTGTGAGGGGCGAGCCAACCCACCTCTATGCCCTGAGCCCTGGTAGTCCAGAGACCCCAACTCTGCCCTGGCT  
TCTCTGGTTCTTCCCTGTGGAAGCCCATCCTGAGACATCTTGCTGGAACCAAGGCAATCCTGGATGTCTGGTA  
CTGACCCACCCGTCTGTGAATGTGTCCACTCTTCTGCCCCAGCCATATTTGGGGAGGATGGACAACCTACAAT  
AGGTAAGAAAATGCAGCCGGAGCCTCAGTCCCCAGCAGAGCCTGTGTCTCACCCCTCACAGGACAGAGCTGTAT  
CTGCATAGAGCTGGTCTCACTGTGGCGCAGGCCCCGGGGGAGTGCCTGTGCTGTGAGGAAGAGGGGGTGCTGGT  
TTGAGGGCCACCCTGCAGTTCTGCTAGGTCTGCTTCTGCCCAGGAAGGTGCCTGCACATGAGAGGAGAGAAAT  
ACACGTCTGATAAGACTTCATGAAATAATAATTATAGCAAAGAACAGTTTGGTGGTCTTTTCTCTTCCACTGATT  
TTTCTGTAATGACATTATACCTTTATTACCTCTTTATTTTATTACCTCTATAATAAAATGATACCTTTTTTCATGT  
AAAAAAAAAAAAAAAAA

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**FIGURE 1113**

MVLCVQGPRLLAVERTGQRPLWAPSLELPKPVMOPLPAGAFLEEVAEGTPAQTESEPKVLDPEEDLLCIAKTFS  
YLRESGWYWGSITASEARQHLQKMPEGTFLLVRDSTHPSYLFITLSVKTTTGPTNVRIEYADSSFRLD\$NCLSRPRI  
LAFPDVVSILVQHYVASCTADTRSDSPDPAPTALPMPKEDAPSDPALPAPPPATAVHLKLVQPFVRRSSARSLQH  
LCRLVINRLVADVDCFLPRRMADYLRQYPFQL

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**FIGURE 1114**

GXCCCTCGACGGCXTGCAGCCGGGAGAGCC**ATG**GCGGGGGCCGCAGCGGGCGGCAGAGGCGGAGGTGCCTGGGGG  
CCGGGGCGCGGAGGGGGCCGGGGGGCTCCGGCGGGGGCTGCTCTCCCCAGCCCCCGCCGGCTCCCCCGGGCTGGG  
CTGCAGCCGCTCAGGGCCACGATCCCCTTCCAGCTGCAGCAGCCGCACCAGCGCCGGGACGGGGGTGGCCGTGCA  
GCCAGCGTCCCATGCTCGGTGGCCCCAGAAAAGTCAGTGTGTAGGCCTCAGCCACTTCAGGTCCGGCGTACATTC  
TCCCTGGACACCATCCTCAGCTCCTACCTTCTGGGCCAGTGGCCACGAGATGCTGATGGGGCCTTCACCTGCTGC  
ACCAATGACAAGGCCACCCAGACGCCCTGTCTGGCAAGAGCTAGAAGGTGAGCGTGCCAGTTCTGTGCACAC  
AAGCGCTCAGCATCCTGGGGCAGCACAGACCACCGAAAAGAGATTTCGAAGTTGAAGCAACAACCTGCAGAGGACG  
AAGCTGAGCCGCGAGTGGGAAAGAGAAGGAGCGAGGTTCACTACTCCTAGGGGACCACGCGAGTGCGGGGAGCACTG  
AGGGCGTCCCCTCCAGCTTCCCCTCAGGGTCCCCTGTCTTGCGACTCAGCCCCTGCCTGCACAGGAGCCTGGAA  
GGGCTCAACCAAGAGCTGGAGGAGGTATTTGTGAAGGAGCAGGGAGAAGAGGAGCTGCTGAGGATCCTTGATATC  
CCTGATGGGCACCGGGCCCCAGCTCCTCCCCAGAGTGGCAGCTGTGATCATCCCCTCCTCCTCCTGGAGCCTGGC  
AACCTTGCCAGCTCTCCTTCCATGTCCTTGGCATCTCCCCAGCCTTGTGGCCTGGCCAGTCATGAGGAACATCGG  
GGTGCCGCCGAGGAGCTGGCATCCACCCCCAACGACAAAGCCTCCTCTCCAGGACACCCAGCCTTTCTTGAAGAT  
GGCAGCCCATCTCCAGTCCTTGCCCTTGTCTGCCCTCCCCTCGACCTAATCATAGCTACATCTTCAAACGGGAGCCC  
CCAGAAGGCTGTGAGAAAGTGCGTGTGTTTGAAGAAGCCACGTCTCCAGGTCTGACCTGGCCTTCCTGACTTCC  
TGTCTTGACAAGAACAAGTCCATTTCAACCCGACTGGCTCAGCCTTCTGCCCCGTCAACCTGATGAAGCCCCCTC  
TTCCCCGGCATGGGCTTCATCTTCCGTAAGTGGCCCTCAAACCCGGGATCTCCCCTTCCCCCGGCCAGCCCCAGG  
CCACCACCTCGGAAGGATCCGGAAGCCTCCAAGGCCTCCCCACTGCCATTTCGAGCCATGGCAGCGCACCCCCACCA  
TCAGAAGAGCCTGTGCTTTTCCAGAGCTCCCTGATGGTCT**TGAG**GGGTCCCACCCCTGCCCCACTTTACCATAGAGA  
CCAGTGCCCTGGTGGCAGGTCCCTCCCCAGGTCCCCTGAGATGGGGTATGGAGGGGGCCCTTCCCTCTCGGCCTTC  
GAGCACTTTCTTTCACTTACTGTGTCAAAGCCCTGGGTCTCTTTTTTGATGGGCACCGGCCCTCTGAACGTGAT  
GGGACCTGCCTTCTCCACTAGTAGCTGGGCAGCTCACAATTCACACCTGTGTACCTGCCACATCCCTCACTTGGT  
GGAAAACACCCAGAAGGTCTTGAGTCCCCCACCCTGGGTGTGAGTCCAAATGACTGTATAGGAGGCCCTTATTT  
TTGTACAGAGCAAGCTGGCCATGAACGAAGGAGAGAAGACGCCACAGATTTCTTCCCTCTCCTCCAGGAGACC  
ATAAGATAGATCCCCCATCCTCTCAGCCCTATTCCCATGCCTCCCTCTCATTGGAGGAGCTGACCAAAGCAGCCC  
TAACGGGCCATAACACTTGACCAATTAGCTGCTGGCAGAGGGAGGAAACAAGTGTTTTCCCAAGTGGCATTTTC  
ATCTCGCTTTACCCCTGACTAAAGATTGTCTTAAGTAGCAGCCCAGCCCGCCAGCCCCAGGTGGGTAGTGGGGA  
GGAGAGCTGGCATTCCTCCAGGTGGCAAATGGCGACTCTATACTCTCCGCCCGCCCCAGGGCTGGATGGATTAGA  
AAAATCCCTATTTTTCTTGATCGATGTAGAGACTCTATTTTCTCCCAAAGACACTATTTTTGCAGCTGTTTGAA  
GTTTGTATATTTTCCGTACTGCAGAGCTTACACAAAATTGAAGAATGTTAATGTTTCAGTTTTCTTATCTTGTGT  
TTAGAGGTTGTTTTTGCAGATCTTGGTGTTAATAGACCAAATAAATAAATAAATATTCCCAGCAAAAAAAAAAAG  
TCGAC



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**FIGURE 1115**

MAGAAAGGRGGGAWGPGRGGAGGLRRGCSPPAPAGSPRAGLQPLRATIPFQLQQPHQRRDGGGRAASVPCSVAPE  
KSVCRPQPLQVRRTFSLDTILSSYLLGQWPRDADGAFTCCTNDKATQTPLSWQELEGERASSCAHKRSASWGSTD  
HRKEISKLKQQLQRTKLSRSGKEKERGSPLLGDHAVRGALRASPPSFPSPGSPVLRRLSPCLHRSLEGLNQELEEVE  
VKEQGEEELLRILDIPDGHRAAPPQSGSCDHPLLLLEPGNLASSPSMSLASPQPCGLASHEEHRGAAEELASTP  
NDKASSPGHPAFLEDGSPSPVLAFAASPRPNHSYIFKREPPEGCEKVRVFEEATSPGPDLAFLTSCPDKNKVHFN  
PTGSAFCPVNLMKPLFPGMGFI FRNCPSNPGSPLPPASPRPPPRKDPEASKASPLPFEPWQRTPPSEEPVLFQSS  
LMV

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**FIGURE 1116**

GTCATGTTCTTCGCGCCCTGGTGTGGACACTGCCAGCGGCTGCAGCCGACTTGGAATGACCTGGGAGACAAATAC  
AACAGC**ATGGA**AGATGCCAAAGTCTATGTGGCTAAAGTGGACTGCACGGCCCACTCCGACGTGTGCTCCGCCAG  
GGGGTGCAGGATACCCACCTTAAAGCTTTTCAAGCCAGGCCAAGAAGCTGTGAAGTACCAGGGTCTTCGGGAC  
TTCCAGACACTGGAAAACCTGGATGCTGCAGACACTGAACGAGGAGCCAGTGACACCAGAGCCGGAAGTGGAAACG  
CCAGTGCCCCCGAGCTCAAGCAAGGGCTGTATGAGCTCTCAGCAAGCAACTTTGAGCTGCACGTTGCACAAGGC  
GACCACTTTATCAAGTTCTTCGCTCCGTGGTGTGGTCACTGCAAGCCCTGGCTCCAACCTGGGAGCAGCTGGCT  
CTGGGCCTTGAACATTCCGAAACTGTCAAGATTGGCAAGGTTGATTGTACACAGCACTATGAACCTCTGCTCCGGA  
AACCAGGTTTCGTGGCTATCCCACTCTTCTCTGGTTCGAGATGGGAAAAAGGTGGATCAGTACAAGGGAAAGCGG  
GATTTGGAGTCACTGAGGGAGTACGTGGAGTCGCAGCTGCAGCGCACAGAGACTGGAGCGACGGAGACCGTCACG  
CCCTCAGAGGCCCGGTGCTGGCAGCTGAGCCCGAGGCTGACAAGGGCACTGTGTTGGCACTCACTGAAAATAAC  
TTCGATGACACCATTGCAGAAGGAATAACCTTCATCAAGTTTTATGCTCCATGGTGTGGTCATTGTAAGACTCTG  
GCTCCTACTTTGGGAGGAACCTCTCTAAAAGGAATTCCTGGTCTGGCGGGGGTCAAGATCGCCGAAGTAGACTGC  
ACTGCTGAACGGAATATCTGCAGCAAGTATTCGGTACGAGGCTACCCACGTTATTGCTTTTCCGAGGAGGGAAG  
AAAGTCAGTGAGCACAGTGGAGGCAGAGACCTTGACTCGTTACACCGCTTTGTCTGAGCCAAGCGAAAGACGAA  
CTTT**TAG**GAACACAGTTGGAGGTCACCTCTCCTGCCAGCTCCCGCACCTTGCCTTTAGGAGTTCAGTCCCACAGA  
GGCCACTGGGTTCCAGTGGTGGCTGTTTCAGAAAGCAGAACATACTAAGCGTGAGGTATCTTCTTTGTGTGTGTG  
TTTTCCAAGCCAACACACTCTACAGATTCTTTATTAATGTGTAACCTCATGGTCACTGTGTAAACATTTTCAGTG  
GCGATATATCCCCTTTGACCTTCTCTTGATGAAATTTACATGGTTTCCTTTGAGACTAAAATAGCGTTGAGGGAA  
ATGAAATTGCTGGACTATTTGTGGCTCCTGAGTTGAGTGATTTTGGTGAAAGAAAGCACATCCAAAGCATAGTTT  
ACCTGCCCACGAGTTCTGGAAAGGTGGCCTTGTGGCAGTATTGACGTTCTCTGATCTTAAGGTCACAGTTGACT  
CAATACTGTGTTGGTCCGTAGCATGGAGCAGATTGAAATGCAAAAACCCACACCTCTGGAAGATACCTTCACGGC  
CGCTGCTGGAGCTTCTGTTGCTGTGAATACTTCTCTCAGTGTGAGAGGTTAGCCGTGATGAAAGCAGCGTTACTT  
CTGACCGTGCCTGAGTAAGAGAATGCTGATGCCATAACTTTATGTGTCGATACTTGTCAAATCAGTTACTGTTCA  
GGGGATCCTTCTGTTTCTCACGGGGTGAAACATGTCTTTAGTTCTCATGTAAACACGAAGCCAGAGCCCACATG  
AACTGTTGGATGTCTTCTTAGAAAGGGTAGGCATGGAAAATTCCACGAGGCTCATTCTCAGTATCTCATTAAC  
CATTGAAAGATTCCAGTTGTATTTGTCACCTGGGGTGACAAGACCAGACAGGCTTTCCCAGGCCTGGGTATCCAG  
GGAGGCTCTGCAGCCCTGCTGAAGGGCCCTAACTAGAGTTCTAGAGTTTCTGATTCTGTTTCTCAGTAGTCCTTT  
TAGAGGCTTGCTATACTTGGTCTGCTTCAAGGAGGTGCACCTTCTAATGTATGAAGAATGGGATGCATTTGATCT  
CAAGACCAAGACAGATGTCAAGTGGGCTGCTCTGGCCCTGGTGTGCACGGCTGTGGCAGCTGTTGATGCCAGTGT  
CCTCTAACTCATGCTGTCTTGTGATTAAACACCTCTATCTCCCTTGGGAATAAGCACATACAGGCTTAAGCTCT  
AAGATAGATAGGTGTTTGTCTTTTACCATCGAGCTACTTCCCATAATAACCACTTTGCATCCAACACTCTTCAC  
CCACCTCCCATACGCAAGGGGATGTGGATACTTGGCCCAAGTAAGTGGTGGTAGGAATCTTAGAAACAAGACCA  
CTTATACTGTCTGTCTGAGGCAGAAGATAACAGCAGCATCTCGACCAGCCTCTGCCTTAAAGGAAATCTTTATTA  
ATCACGTATGGTTCACAGATAATTCTTTTTTAAAAAAACCCAACCTCCTAGAGAAGCACAACGTCAAGAGTCT  
TGACACACAACCTTCAGCTTTGCATCACGAGTCTTGATTCCAAGAAAATCAAAGTGGTACAATTTGTTTGTGTTA  
CACTATGATACTTTCTAAATAAACTCTTTTTTTTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAC

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**FIGURE 1117**

MEDAKVYVAKVDCTAHSVCSAQGVRGYPTLKLFPQGEAVKYQGPRDFQTLENWMLQTLNEEPVTPEPEVEPPS  
APELKQGLYELSASNFEHVAQGDHF IKFFAPWCGHCKALAPTWEQLALGLEHSETVKIGKVDCTQHYELCSGNQ  
VRGYPTLLWFRDGKKVDQYKGKRDLESLREYVESQLQRTETGATETVTPSEAPVLAAEPEADKGTVLALTENNFD  
DTIAEGITFIKFYAPWCGHCKTLAPTWEELSKKEFPGLAGVKIAEVDCTAERNICKYSVRGYPTLLLFRGGKKV  
SEHSGGRDLDLHRLFVLSQAKDEL

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**FIGURE 1118**

GCGGAGGGACCGACGGACGCACGGGCGGGCGGCCGGGAGCCATGGAGCGCGGCCCTGGGGCCCCGGGGCGCGGGC  
CGGGGTGGGCTTCCCACGGCACGACATGGAGACCTGTGGTTGCGAGGCTCCCTGGGGCTCGGCTTGGACCGCGAT  
GGGGCTGGGCCCTGGCCTCCTAACGGGGCTGCTGTCTGGGGCGGTAGCTGGGGGGGCGCTCTCCCCCTGCCCGC  
GACTCGGAGCACCCCCACCCCTCCCCTGCCGGGCCAGGCCGGGCGGCGTTGTTGGCGGGGGCCCCGGTGGAGGCC  
CGGCCTGGGCGGCGCCCCGCC**ATGAAT**GGGCTGTGCTGAGTGAGCTCTGCTGCCTCTTCTGCTGCCCGCCCTGCC  
CCGGCCGCATCGCTGCCAAGCTCGCCTTCCCTGCCGCCGGAGGCCACCTACTCCCTGGTGCCTGAGCCCCGAGCCGG  
GGCCTGGTGGGGCCGGGGCCGCCCTTGGGGACCCTGAGAGCCTCCTCGGGCGCACCCGGGCGCTGGAAGCTGC  
ACCTGACGGAGCGTGCCGACTTCCAGTACAGCCAGCGCGAGCTGGACACCATCGAGGTCTTCCCCACCAAGAGCG  
CCCGCGGCAACCGCGTCTCCTGCATGTATGTTGCTGCGTGCGTGGTGCCAGACAAGGACACCAGGCTCAGGGAG  
GCCATCCCCAGCTGGCATGGGTGGGCAGGCTGGGCGACTCCAACAACCCAGCGCCTGGTGGTTGCCTGCTGGGCG  
AGAGCTGGGGCACAGGGGCTGCCCTGGCCTGCGGGTACATCCACCTTCTCGCCAGGTACACGGTCCCTCTTCTCGC  
ACGGCAATGCCGTGGACCTGGGCCAGATGAGCAGCTTCTACATTGGCCTGGGCTCCCGCCTCCACTGCAACATCT  
TCTCCTACGACTACTCCGGCTACGGTGCCAGCTCGGGCAGGCCTTCCGAGAGGAACCTCTATGCCGACATCGACG  
CCGCCTGGCAGGCCCTGCGCACAGGTACGGCATCAGCCCGGACAGCATCATCCTGTACGGGCAGAGCATCGGCA  
CGGTGCCCCACCGTGGACCTGGCCTCGCGCTACGAGTGTGCCCGGTGGTGCTGCACTCGCCGCTCACCTCGGGCA  
TGCGCGTGCCTTCCCCGACACCAAGAAGACCTACTGCTTCGACGCCTTCCCTAACATCGAGAAGGTGTCCAAGA  
TCACGTCTCCCGTGCTCATCATCCACGGCACGGAGGACGAGGTGATCGACTTCTCGCACGGGCTGGCGCTCTACG  
AGCGCTGCCCCAAGGCGGTGGAGCCGCTGTGGGTGGAGGGCGCCGGGCACAACGACATCGAGCTCTACAGCCAGT  
ACCTGGAGCGCCTGCGTCGCTTCATCTCCAGGAGCTGCCCAGCCAGCGCGCC**TAGC**GGCGGGCCCCAACCGGCCG  
GACCTCAGCAATAAGGCGGGCCCCCGGACCTCACCCCGCGCCGGCCCCCACCAGGGGCTGCATGTGGACCCCCCG  
GGCGGCCAGGGGACCCCGCCCCGACCCAGGGGCTGTGGACGATGTACAGGCAACAGAGCTACGCACTCCTTTCC  
TTTTGGAAGCAAGAAGAAAATACGTGAAAACGGAAATTAAAGATTTAAATTTTAAAAAAAAAAAAAAAAA

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**FIGURE 1119**

MNGLSLSELCCLFCCPPCPGRIAAKLAFLPPEATYSLVPEPEPGPGGAGAAPLGTLRASSGAPGRWKLHLTERAD  
FQYSQRELDTIEVFPTKSARGNRVSCMYVRCVPGARQGHQAQGGHPQLAWVGRLGDSNNPAPGGCLLGESWGTGA  
ALACGYIHLLARYTVLFSHGNAVDLGQMSSFYIGLSRLHCNIFSYDYSYGASSGRPSEPNLYADIDAAWQALR  
TRYGISPDSIIILYGQSIGTVPTVDLASRYECAAVVLHSPLTSGMRVAFPDTKKTYCFDAFPNIEKVSKITSPVLI  
IHGTEDEVIDFSHGLALYERCPKAVEPLWVEGAGHNDIELYSQYLERLRRFISQELPSQRA

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**FIGURE 1120**

GC GCGGCCCATGGAGTCGGGGCTGCTGCGGCCGGCGCCGGTGAGCGAGGTCATCGTCTGCATTACAAC TACACC  
GGCAAGCTCCGCGGTGCGCGCTACCAGCCGGGTGCCGGCCTGCGCGCCGACGCCGTGGTGTGCCTGGCGGTGTGC  
GCCTTCATCGTGTAGAGAATCTAGCCGTGTTGTTGGTGCTCGGACGCCACCCGCGCTTCCACGCTCCCATGTTC  
CTGCTCCTGGGCAGCCTCACGTTGTGCGATCTGCTGGCAGGCGCCGCTACGCCGCCAACATCCTACTGTCTGGGG  
CCGCTCACGCTGAAACTGTCCCCGCGCTCTGGTTCGCACGGGAGGGAGGCGTCTTCGTGGCACTCACTGCGTCC  
GTGCTGAGCCTCCTGGCCATCGCGCTGGAGCGCAGCCTCACCATGGCGCGCAGGGGGCCCGCGCCCGTCTCCAGT  
CGGGGGCGCACGCTGGCGATGGCAGCCGCGGCCTGGGGCGTGTGCTGCTCCTCGGGCTCCTGCCAGCGCTGGGC  
TGGAATTGCCTGGGTGCGCTGGACGCTTGCTCCACTGTCTTGCCGCTCTACGCCAAGGCCTACGTGCTCTTCTGC  
GTGCTCGCCTTCGTGGGCATCCTGGCCGCGATCTGTGCACTCTACGCGCGCATCTACTGCCAGGTACGCGCCAAC  
GCGCGGCGCCTGCCGGCACGGCCCGGGACTGCGGGGACCACCTCGACCCGGGCGCGTGCAGGCCGCGCTCGCTG  
GCCTTGCTGCGCACGCTCAGCGTGGTGTCTCTGGCCTTTGTGGCATGTTGGGGCCCCCTCTTCTGCTGCTGTTG  
CTCGACGTGGCGTGCCCGGCGCGCACCTGTCTGTACTCCTGCAGGCCGATCCCTTCTGCGGACTGGCCATGGCC  
AACTCACTTCTGAACCCCATCATCTACACGCTCACCAACCGCGACCTGCGCCACGCGCTCCTGCGCCTGGTCTGC  
TGCGGACGCCACTCCTGCGGCAGAGACCCGAGTGGCTCCCAGCAGTCGCGCGAGCGCGGCTGAGGCTTCCGGGGGC  
CTGCGCCGCTGCCTGCCCCGGGCCTTGATGGGAGCTTCAGCGGCTCGGAGCGCTCATCGCCCCAGCGCGACGGG  
CTGGACACCAGCGGCTCCACAGGCAGCCCCGGTGCACCCACAGCCGCCCGGACTCTGGTATCAGAACCGGCTGCA  
GACTGACACCCCTCGGCCCACGACTGTCTTCCCAAGTTTACAGACTTGTCTTTTTTACATAAAGGAATTTGTAGG  
AAATGCAGCCAAAGGTGCAGTCGGAAGATGCAGGGGAAATGTATTTATGCAGCGACACCCACAATGTGAACA  
AACAGACAAAAATCTGTGCCCTCGTGGAATTGACGTTCTGCTTGGGAACACAGAAAAGAACTCGGTGATGAAAT  
AATGGAGATGATTCCAGTGACAAACGACAGAGATGGTGATGGTGGTCAGGGAAGACCTCTCTGCAGAGGTAGTGA  
CTTGTGATGTGAGCTGAGACCTCTGTCTGGGAAGACCAAAAGAAAAGCATTTCAGGATGAGGGAATGGCATGCG  
CAAAGGCCCTGAGGCTGAAATGTGCCCATGTGTTCTAAGAAATGCAGCGATGCTGGTGTGCTGGAGCAGGGACG  
GAGGGGGAGAATGGGAGGAGACAAGGAGCTGAAGGAGTAGTTCGCCAAGGACCTTGTGGGTGATATAGAGGACTT  
CGCTTTTGCTCTGAGTGAGGTGGGAGCCATAGAAGCTTCTAAGCAGAAGAGGGACTTGCCCTAATTCAGGTGATC  
ACAGGTGTCTTGTGGCCTCCATGGGAGGTTGAAAACACAGAAGGTGAAGGGGGGCTGCACTGAGCCACAGGAAC  
AATGATGGAGATTCCAGCTAAGCCCAGACCCCGTGGATTCTAGATAGATTTTAGAGGCAGCAGACAGAATTACTG  
AGGAATTGAGTGTAAGAGTGGAATAAAGTTATCAAGGACAATGCCAAGGTGGGGCACCCCAAATTTGACTTTG  
GGAGACTCAGCCAAATCCTATCTGGTAATAAAATTTCTTTTTTATTTTTCTTTTCTTTCTTTCTTTCTTTCT  
TTTTTTTTTTTTTGTAGTTGGGATCTTGTGCTCTGTCAACCAGGCTGGAGTGCAATGGGCACAATTATAGCTCACT  
GCAGCCTGGAATCCTGGGATCAAGCCTGGAGTTCTGCTTCAGCCTCCCTAGTAGCTGGGACTACAGGCATGCA  
CCACCATGCCAGTTAATAAAATTTCTTCAAATGCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1121**

MESGLLRPAPVSEVIVLHNYTGKLRGARYQPGAGLRADAVVCLAVCAFI VLENLAVLLVLGRHPRFHAPMFLLL  
GSLTLDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARRGPAPVSSRGR  
TLAMAAAAGVSLLLGLLPALGWNCGRLDACSTVLPYAKAYVLFVLAFFVGILAAICALYARIYCQVRANARR  
LPARPGTAGTTSTRARRKPRSLALLRTL SVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSI  
LNPIIYTLNRDLRHALLRLVCCGRHSCGRDPSSGSQQSASAAEASGGLRRCLPPGLDGSFSGSERSSPQRDGLDT  
SGSTGSPGAPTAARTLVSEPAAD

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**FIGURE 1122A**

GGGGGCAGAAAAGGGGGCGGCGGACTCGGCTTGTTGTGTTGCTGCCTGAGTGCCGGAGACGGTCCTGCTGCTGCC  
GCAGTCCTGCCAGCTGTCCGACGATGTCGTCCCACCTAGTCGAGCCGCCGCCGCCCTGCACAACAATAACAACA  
ACTGCGAGGAAAATGAGCAGTCTCTGCCCCCGCCGGCCGGCCTCAACAGTTCCTGGGTGGAGCTACCCATGAACA  
GCAGCAATGGCAATGATAATGGCAATGGGAAAAATGGGGGGCTGGAACACGTACCATCCTCATCCTCCATCCACA  
ATGGAGACATGGAGAAGATTCTTTTGGATGCACAACATGAATCAGGACAGAGTAGTTCCAGAGGCAGTTCTCACT  
GTGACAGCCCTTCGCCACAAGAAGATGGGCAGATCATGTTTGATGTGGAATGCACACCAGCAGGGACCATAGCT  
CTCAGTCAGAAGAAGAAGTTGTAGAAGGAGAGAAGGAAGTCGAGGCTTTGAAGAAAAGTGCGGACTGGGTATCAG  
ACTGGTCCAGTAGACCCGAAAACATTCCACCCAAGGAGTTCACCTCAGACACCCTAAACGTTCTGTGTCTTTAA  
GCATGAGGAAAAGTGGAGCCATGAAGAAAGGGGGTATTTTCTCCGCAGAATTTCTGAAGGTGTTTCATTCCATCTC  
TCTTCTTTTCTCATGTTTTGGCTTTGGGGCTAGGCATCTATATTGGAAAGCGACTGAGCACACCCTCTGCCAGCA  
CCTACTGAGAGGAAAAGGAAAAGCCCCCTGGAAATGCGTGTGACCTGTGAAGTGGTGTATTGTACAGTAGCTTATTT  
GAACCTTGAGACCATTGTAAGCATGACCCAACCTACCACCCTGTTTTTACATATCCAATTCCAGTAACTCTCAAA  
TCAATATTTTTATTCAAACCTCTGTTGAGGCATTTTACTAACCTTATACCCTTTTTGGCCCTGAAGACATTTTAGAAT  
TTCCTAACAGAGTTTACTGTTGTTTAGAAATTTGCAAGGGCTTCTTTCCGCAAATGCCACCAGCAGATTATAAT  
TTTGTGAGCAATGCTATTATCTCTAATTAGTGCCACCAGACTAGACCTGTATCATTTCATGGTATAAATTTTACTC  
TTGCAACATAACTACCATCTCTCTCTTAAACGAGATCAGGTTAGCAAATGATGTAAAAGAAGCTTTATTGTCTA  
GTTGTTTTTTTTTCCCCAAGACAAAGGCAAGTTTCCCTAAGTTTGAGTTGATAGTTATTAAAAAGAAAACAAAAC  
AAAAAAAAAAGGCAAGGCACAACAAAAAATATCCTGGGCAATAAAAAAATATTTTAAACCAGCTTTGGAGCCA  
CTTTTTTGTCTAAGCCTCCTAATAGCGTCTTTTAATTTATAGGAGGCAAACCTGTATAAATGATAGGTATGAAATA  
GAATAAGAAGTAAAATACATCAGCAGATTTTCATACTAGTATGTTGTAATGCTGTCTTTTCTATGGTGTAGAATC  
TTTCTTTCTGATAAGGAACGTCTCAGGCTTAGAAATATATGAAATTGCTTTTTGAGATTTTTCGTGTGTGTTG  
ATATTTTTTACGATAATTAGCTGCATGTGAATTTTTTCATGACCTTCTTTACATTTTTTATTTTTTATTTCTTTAT  
TTTTTTTTTCTCTAAGAAGAGGCTTTGGAATGAGTTCCAATTTGTGATGTTAATACAGGCTTCTTGTTTTAGGAAG  
CATCACCTATACTCTGAAGCCTTTAACTCTGAAGAGAATTGTTTCAGAGTTATTCCAAGCACTTGTGCAACTTG  
GAAAAACAGACTTGGGTTGTGGGAACAGTTGACAGCGTTCTGAAAAGATGCCATTTGTTTCCTTCTGATCTCTCA  
CTGAATAATGTTTACTGTACAGTCTTCCCAAGGTGATTCTGCGACTGCAGGCAGTGGTCATTTTCTCATGTAGC  
TGTCTTTTTCAGTTATGGTAAACTCTTAAAGTTTCAAGAACTCAACAGATTCCCTTCAGTGATATACTTGTTCTGTTT  
ATTTCTAAAATGTGAAGCTTTAGGACCAAATTGTTAGAAAGCATCAGGATGACCAGTTATCTCGAGTAGATTTTC  
TTGGATTTTCAAGACATCTAGCATGACTCTGAAGGATACCACATGTTTTATATATAAATAATTACTGTTTATGATA  
TAGACATTGATATTGACTATTTAGAGAACCGTTGTTAATTTTAAACTAGCAATCTATAAAGTGCACCAGGTCAA  
CTTGAATAAAAACACTATGACAGACAGGTTTGCCAGTTTGCAAGAACTAACTCTTTTCTCACATCAACATTTGTA  
AAATTGATGTGTTATAGTGGAATAACATATAGATTAAACAAAATTTTATCTTTTTTCAAGAATATAGCTGGC  
TATCTTTAAGAAAGATGATATATCCTAGTTTTGAAAGTAATTTCTTTTTTCTTTCTAGCATTGATGTCTAAAT  
AATTTTGGACATCTTTTCTTAGACCATGTTTCTGTCTTACTCTTAAACCTGGTAACACTTGATTGTCCTTCTAT  
AACCTATTTATTTCAAGTGTTTCATATTTGAATTTCTTTGGGAAGAAAGTAAATCTGATGGCTCACTGATTTTGA  
AAAGCCTGAATAAAATTGGAAAGACTGGAAAGTTAGGAGAACTGACTAGCTAACTGCTACAGTATGCAATTTCT  
ATTACAATTGGTATTACAGGGGGGAAAAGTAAAATTACACTTTACCTGAAAGTGACTTCTTACAGCTAGTGCATT  
GTGCTCTTTCCAAGTTCAGCAGCAGTCTATCAGTGGTGCCACTGAACTGGGTATATTTATGATTTCTTTTACG  
GTTAAAAAGAAACATAGTGTTGCCCTTTTTCTTAAAGCATCAGTGAAATTATGGAAAATTACTTAAACGTGAAT  
ACATCATCACAGTAGAATTTATTATGAGAGCATGTAGTATGTATCTGTAGCCCTAACACATGGGATGAACGTTTT  
ACTGCTACACCCAGATTTGTGTTGAACGAAAACATTGTGGTTTGGAAAGGAGAATTCACAATTAATAGTTGAAA  
TTGTGAGGTTAATGTTTAAAAAGCTTTACACCTGTTTACAATTTGGGGACAAAAAGGCAGGCTTCATTTTTTATA  
TGTTTGATGAAAACCTGGCTCAAGATGTTTGTAATAGAAATCAAGAGCAAAACTGCACAACTTGACATTGGAAA  
GTGCAACAAGTTCCCGTGATTGCAGTAAAAATATTTACTATTCTAAAAAATGAGAATTGAAGACTTAGCCAGTC  
AGATAAGTTTTTTTTCATGAACCCGTTGTGGAATTTATTGGAATTAAGTGAAGTATGCAATTTCTTCATC  
TATTTTAGTTAGCACTTTGTATCGTTATATACAGTTTACAATACATGTATAACTTGTAGCTATAAACATTTTGTG  
CCATTAAAGCTCTCACAAAACTTTTCTGTGAGTATATCATTTTCTGTGCGACCTGTTGCCTGGGAGTTTCAGG  
CGATGAGGCCTCCTCGCCTACACACAGCCTTCCAGTCATCTGGCTTCCCCAGCAGTGGAGTTCCTAACAGTGCTC



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**FIGURE 1122B**

AGGGTGTGAACGGTGTTCGTGTTGGGACAGTCACCGCAGTGTGAGCATTTCGTGAGTGCCTCGGGACTGTGGCATT  
AGAGCATTTCCTCCAGGTAGTGGCAGGAGGGCGCTCACGGGAGGAGTGCTCAGGAAGTACAGGAGAGAAGAAGA  
GTGTGCCCTGATGGAAATGACAGTGGGACACCAGTGAAGTGGATCCAGAAGGAACTGGAAGTTCACGTGCCTG  
GAAAACAGGATGGATACAGAGGAACTGAAAAATGTAGGTTAGTACTGAACCTAATTGAAATGTGTGTGCCCTCC  
CAGGGGTCACTTCATCATATAGTTAGCTGGGTTTACTTCTTTTAAACCAGGAGGTGATTAAAGATGTAAATTT  
TAGACAGTCAAGCCATCTGGTGAGAGAGTACCAGAGGAGATCAATCAGTTCTCTAGGCGAGGAGCTAGGGCCTGT  
CCTGGGCTGTACCCCTGAGGTTGGCAGTGGTGGGCCAGGATACGTATGAGAAACAAAGCGGAAGTAAACTGGTCA  
GAAAGTGACTTAGAGACGAAGGCGTGTGTATTCCTTTGTGTGTGTGGCCCGTAAACATGGGTTGATCCCATTAG  
TTAAAGGAGGACAGGAGAAGAAATGGGGTGGTAGGAGCAAAGAGGGAGGATTCAGTTTTGAGTGCCTTGAACAT  
GAAATGTCTGAGGGCCTTCTGATTGGACACTTACTCC

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**FIGURE 1123**

GQKRGRRTRLVVLLPECRRRSCCCRSPASCPTMSSHLVEPPPPPLHNNNNNCEENEQSLPPPAGLNSSWVELPMNS  
SNGNDNGNGKNGGLEHVPSSSSIHNNGDMEKILLDAQHESGQSSSRGSSHCDSPSPQEDGQIMFDVEMHTSRDHSS  
QSEEEVVEGEKEVEALKKSADWSDWSSRPENIPPKEFHFRHPKRSVLSMRKSGAMKKGIFSAEFLKVFIPSL  
FLSHVLALGLGIYIGKRLSTPSASTY

**FIGURE 1124**

GCGGCGGACTCGGCTTGTTGTGTTGCTGCCTGAGTGCCGGAGACGGTCCTGCTGCTGCCGCAGTCCTGCCAGCTG  
TCCGACG**ATGT**CGTCCCACCTAGTCGAGCCGCCGCCGCCCTGCACAACAACAACAACACTGCGAGGAAAATGA  
GCAGTCTCTGCCCCCGCCGGCCGGCCTCAACAGTTCCTGGGTGGAGCTACCCATGAACAGCAGCAATGGCAATGA  
TAATGGCAATGGGAAAAATGGGGGGCTGGAACACGTACCATCCTCATCCTCCATCCACAATGGAGACATGGAGAA  
GATTCTTTTGATGCACAACATGAATCAGGACAGAGTAGTTCCAGAGGCAGTTCTCACTGTGACAGCCCTTCGCC  
ACAAGAAGATGGGCAGATCATGTTTGATGTGGAAATGCACACCAGCAGGGACCATAGCTCTCAGTCAGAAGAAGA  
AGTTGTAGAAGGAGAGAAGGAAGTCGAGGCTTTGAAGAAAAGTGC GGACTGGGTATCAGACTGGTCCAGTAGACC  
CGAAAACATTCCACCCAAGGAGTTCCACTTCAGACACCCTAAACGTTCTGTGTCTTTAAGCATGAGGAAAAGTGG  
AGCCATGAAGAAAGGGGGTATTTTCTCCGCAGAATTTCTGAAGGTGTTCAATCCATCTCTCTTCTTCTTCTCATGT  
TTTGGCTTTGGGGCTAGGCATCTATATTGGAAAGCGACTGAGCACACCCTCTGCCAGCACCTAC**TGA**GGGAAAGG  
AAAAGCCCCCTGGAAATGCGTGTGACCTGTGAAGTGGTGTATTGTACAGTAGCTTATTTGAACTTGAGACCATTG  
TAAGCATGACCCAACCTACCACCCTGTTTTTACATATCCAATTCCAGTAACCCTCAAATTCATATTTTATTCAA  
ACTCTGTTGAGGCATTTTACTAACCTTATAACCTTTTTTGGCCTGAAGACATTTTAGAATTTCTTAACAGAGTTTA  
CTGTTGTTTAGAAATTTGCAAGGGCTTCTTTTCCGCAAAATGCCACCAGCAGATTATAATTTTGTGCGCAATGCTA  
TTATCTCTAATTAGTGCCACCAGACTAGACCTGTATCATTCATGGTATAAATTTTACTCTTCCAACATAACTACC  
ATCTCTCTCTTAAACGAGATCAGGTTAGCAAATGATGTAAAAGAAGCTTTATTGTCTAGTTGTTTTTTTTTCCCC  
CAAGACAAAGGCAAGTTTCCCTAAGTTTGAGTTGATAGTTATTAAAAAGAAAACAAAACAAAAAAAAGGCAAG  
GCACAACAAAAAATATCCTGGGCAATAAAAAAATATTTTAAACCAAAAAAAA

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**FIGURE 1125**

MSSHLVEPPPPLHNNNNNCEENEQSLPPPAGLNSSWVELPMNSSNGNDNGNGKNGGLEHVPSSSSSIHNGDMEKIL  
LDAQHESGQSSSRGSSHCDSPSPQEDGQIMFDVEMHTSRDHSSQSEEEVVEGEKEVEALKKSADWSDWSSRPEN  
IPPKEFHFRHPKRSVLSMRKSGAMKKGIFSAEFLKVFIPSLFLSHVLALGLGIYIGKRLSTPSASTY

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**FIGURE 1126**

GCGGCCGGCGGCGTCTCCTCCCGGGACGCTGAGGGGCCCCGAGGAGACCGTGAGGCTCTGGCCTGCAGCTCGCGCC  
GCC**ATGG**ACGCTGCCGAGGTCGAATTCCTCGCCGAGAAGGAGCTGGTTACCATTATCCCCAACTTCAGTCTGGAC  
AAGATCTACCTCATCGGGGGGGACCTGGGGCCTTTTAACCCCTGGTTTACCCGTGGAAGTGCCCTGTGGCTGGCG  
ATTAACCTGAAACAAAGACAGAAATGTCGCCTGCTCCCTCCAGAGTGGATGGATGTAGAAAAGTTGGAGAAGATG  
AGGGATCATGAACGAAAGGAAGAACTTTTACCCCAATGCCAGCCCTTACTACATGGAAGTTACGAAGCTCCTG  
TTAAATCATGCTTCAGACAACATCCGAAGGCAGACGAAATCCGGACCCTGGTCAAGGATATGTGGGACACTCGT  
ATAGCCAAACTCCGAGTGTCTGCTGACAGCTTTGTGAGACAGCAGGAGGCACATGCCAAGCTGGATAACTTGACC  
TTGATGGAGATCAACACCAGCGGGACTTTCTCACACAAGCGCTCAACCACATGTACAAACTCCGCACGAACCTC  
CAGCCTCTGGAGAGTACTCAGTCTCAGGACTTCT**TAGA**GAAAGGCCTGGTGCAGGCGGCTTGCTGGGGGATGTGAG  
CGCTCAGGATGTGATGAGGTACTCGTGGTTCTGGAGCTCTAGAAACACTTCTGATGCATGAAAAATGTGTGATGG  
TGCAAGGAATGGATTTCAGGATGTTGTTGGAGAAACAAGTTTGTGATTAGTCCTTAAACTTAGCTCCCTGGGACA  
TTCTTCAATTCCACATCTGTTTCTAGAAACCAGCCCTTTTCCCCCACTTTTGAGAAATAAAAAAGCCTTAGGT  
AAATAAGTCATTCTCCCTAGCAGAGCCACTTGGGTCTCCTGCATGGAAGCCGTCACACTTGGGCAGGTGTTTCAGT  
GACTGGTAGGTGTAGATACAGCAGGAGTGGCCATGTGGTCCACGGCTTTTACCCCTTCTTGATCCTGATTTCTT  
GGGCTGAATTTAGACTCTCTCACAGAGGTGGCTCACAGAGAAGGATGGCAGATGGTGCAGCCAACAATGCTGACC  
GGTGCTTATCCTCTAAGCCCTGATCCACAATAAAAAATGGACCCAACTCAAAAAAAAAA

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**FIGURE 1127**

MDAAEVEFLAEKELVTIIPNFSLDKIYLIIGGDLGPFNPGLPVEVPLWLAINLKQRQKCRLLPPEWMDVEKLEKMR  
DHERKEETFTPMPSPYYMELTKLLLNHASDNIPKADEIRTLVKDMWDTRIAKLRVSADSFVRQQEAHAKLDNLTL  
MEINTSGTFLTQALNHMYKLRTNLQPLESTQSQDF

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**FIGURE 1128**

CTCGCCGAGATGACCTGGGCACCTCTGCGTTGAATCGGCAAATACTGATCAAGCCGCATTTATTCTGCTCTCAGG  
AACTCTAAGTCTAGCAGAGAAGATGAGGCGGTAGAAGTTCATCAATGGCTTGGCTGGAGGACAAGCAAATTGAGG  
ACATTGGCAACGGAGTGATCAAAATGATAGATCATGAGGCCTAAAATGAATAAGGAAAAGAGAAGTGGCAGAG  
GCTGAGAACAGAAAAGAGAGGGTGGAGGGGCTGTAAATCTTGAAGATTAGGGTATAATATGAGTATATGGGTAAAG  
ATTGGAAGAATTGTGTAGGAGGCAGTAGTCAAAAAGTAGAAGCAGTTTGGAAAGAGTAGTTACAAATATCAAGAGC  
CAGGTGGCTAAAAGGTGGAGCTATAGGTCATTGAAGCTCAAGAACTGAGTCTCTAGGGCATTGGTTAAGTCATC  
TGTCTAGACTTCAAAGTTGTCTAGGATGATAATTCAGAAGACTGATCTGTGCCAAAGTCACAGGTTTTTTCACGAC  
TGAAAACAACATAGCAAAATAAGCCAAGATGCTGTGGATCCAATGACCTACGAGGCCAGTTCTTTGGCTTCAC  
GCCACAAACGTGCATGCTTCGGATCTACATTGCATTTCAAGACTACCTATTTGAAGTGATGCAGGCCGTTGAACA  
GGTTATTCTGAAGAAGCTGGATGGCATCCAGACTGTGACATTAGCCAGTGTCAGATTTCGCAAATGCACAGAGAA  
GTTTTCTTTGCTTCATGAAAGGACATTTTGATAACCTTTTTAGCAAAATGGAGCAACTGTTTTTGACGCTGATTTT  
ACGTATTTCCCTCAAACATCTTGCTTCCTGAAGATAAATGTAAGGAGACACCTTATAGTGAGGAAGATTTTCAGCA  
TCTCCAGAAAGAAATTGAACAGTTACAGGAGAAGTACAAGACTGAATTATGTACTAAGCAGGCCCTTCTTGCAGA  
ATTAGAAGAGCAAAAAATTGTTTCAGGCCAAACTCAAACAGACGTTGACTTTCTTTGATGAGCTTCATAATGTTGG  
CAGAGATCATGGGACTAGTGATTTTAGGGAGAGTTTAGTATCCCTGGTTCAGAACTCCAGAAAACCTACAGAACAT  
TAGAGACAATGTGGAAGGAATCGAAACGACTGAAAATATCTTAATTGCTCAGTAGTCAAAAGGAGGAGCCTGT  
CAAAAAGTAGAATCATAAGGACTGTTCAAACCATAAGGACTGTTCAAATCATAACAGTGACTGTTCAAACCAACC  
ATACTTTTTTATTAGATTTGCTTTGTCAACTCTTTCTTGATTCTGTGTTTTCTCTTTTTTTGGTCCACTTTGCTG  
AGGTATGAAGTGACTACTTTGAACTAGGCTGAAGCATCTGAGTCTTCTAATAAGTGGGAAGGGATCCAACAAAG  
AAGCCATGACCAGTTAAAGATATTTGCAGAGTTACACCTTGGTCATAAGTCCTTTGTGACCTTGATTATTTTGGC  
TTACTCTTTGGATGAGACCAGACAAGAAAAGGATTAAACGGGTGGCTCCTTTAATATTATTATTATTGTTTTTGA  
GACAAGGTCCCTTTCTGTCACCCAGGTTAGAGTAGATTTTCACTGGCACAATCTTGGCTCACTGCAACCTCTGTGT  
CCTGGGCTCAAGTGATCCTCCTGCCTCAGCCTCCCAAGTAGCTAGGACCACAGGTGCGTGTACCATGCTTGGCT  
AATTTTTTTTGCAGAAACGAGGCCTCACTATATTGTCCAGGCTGAGTGGCTCTTTTATTAACCAGTCATTACACTG  
CGGAACAGCCAACATAGAGTACTTGCTCTCGTCCTGTGAATTTCTTTCATGAGGGAGTCAATATGTAGTGGA  
GAAGCATGTAGCAAAAAAGACAACCTTGATCTTTAATAAAAAAGAAAGTTGGTTTATTTCCAAAATAAATCCCCTG  
ACAAAAACCTGGTGATGTTAAGCAATTGACTGTCTTAGAGTCCAGCAGAAGACCTTAGACAAAAAAGCAGAAC  
CCACTGGAGTAGAAAAGGAAGCATGTAGCATATACTCAGTAGTGAAATTTAATTTTACTGACTGTTAGGTATCTA  
TGCCAATTTGTTTTTCACTTTCAGTTGGTTTTTGAATCTGCCTTATACCTAATATTTATTTATTCACACTCATAA  
GCATCAAAATATTTAATGCCCTCAGTGGGAAATTTGTGTTTAACTCAATGGAATCTAATATTTCTTTATGTGCTT  
AGTCCCTGTAAAATGTTAGGTCACCCAAGGAAAGGGGAGAAATAGCAATGGTTGTTTCTAAGGTATTGCTTGCCC  
TCCATGTCTTCTAAAGAGCAGAACTTGGAGTTTCTCCTTTATGTAGAGAAGAAGTAACCTAGGGTGTATTTGCA  
ATGAAATATTCATAGATATTGAAAGCTTGTGTTTACATGAAATATGTTTATTATCAAGAAGTCCTTTTTCCAATT  
CTGTACATTAAATATATGTGTTTTAAAAA

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**FIGURE 1129**

MSVDPMTYEAQFFGFTPQTCMLRIYIAFQDYLFQVEVMQAVEQVILKKLDGIPDCDISPVQIRKCTEKFLCFMKGHF  
DNLFSKMEQLFLQLILRIPSNILLPEDKCKETPYSEEDFQHLQKEIEQLQEKYKTELCTKQALLAELEEQKIVQA  
KLKQTLTFFDELHNVGRDHGTSDFRESLVSLVQNSRKLQNIRDNVEKESKRLKIS



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**FIGURE 1130**

GTGGGACTGGGATCATCAGTCTCTTCTGTGCACACTATGCGCGGCCTAGAGCGGTGTACGCGGTGGAGGCCAGTG  
AGATGGCACAGCACACGGGGCAGCTGGTCCTGCAGAACGGCTTTGCTGACATCATCACCGTGTACCAGCAGAAGG  
TGGAGGATGTGGTGCTGCCCGAGAAGGTGGACGTGCTGGTGTCTGAGTGGATGGGGACCTGCCTGCTGTTTGAGT  
TCATGATCGAGTCCATCCTGTATGCCCGGGATGCCTGGCTGAAGGAGGACGGGGTCATTTGGCCCAACCATGGCTG  
CGTTGCACCTTGTGCCCTGCAGTGCTGATAAGGATTATCGTAGCAAGGTGCTCTTCTGGGACAACGCGTACGAGT  
TCAACCTCAGCGCTCTGAAGTAAGTGTCCACAGCTGGGACTGGCACCGTCTTGTGGGGCCTCCTGGTCCACAGTC  
TGCAGGTGGGCCAAGGCCCTGGGAGATCCCATACGACGGTTGGATAAATGAGGGTACCTGTGCACCCAGATAGGA  
CAATCTGTTGTAGCATTGGAGTAATTAAAGCAGTATGGTGCTATAACAAGACAGATGGGCAGAGCAGGGTAGAAT  
GCAAGGAACAAAAATTTTCGTATGTGAAAAAGGTGGCATTACGATTAGGAGGGAGTGAGGGCCAAGTCAGCAAAT  
TATTCTGGAGCAGTTGATTAGCCCTTGTTCCTCTCACGCCATACGTGAAAACCTAATTCTGCATGGAATCAGCGTC  
AGCGACAGACATCCATGGGGGCCTGTGTGCACCATCTTAGGTGGAGAAATGAGCAGCAACAATGGATGGAATGGA  
CCCTGGGCTAGATAGAATCTGGCAGTCTATGTGGCAGAAATCAGCAAAAACACGATTGTAAAAGCAAACAAGTAA  
TTAGAGAAATCACGTGCTGTCAGGTCTTGGAATCAATTAGAAAGAGATGACTAGCCAGATGGAATTGCAGCCCAA  
TCATGTGAACAGGCAAACCGCAAAAAATAAATAAAATTACCAATAAATACATGAAAAATTATAATGTTGTTAGTA  
GTTAAAATGCGAATTAAAATACATGCTGTTTTCCCTACCAGACAAGCAAAGAGTAAATTAAAATAGTAGCCCCAGG  
CTTGCCCTGGCAGTGGCAGGGAGGTGTGGCTGCCAGGGCCTTAGAGGTTGGCATCAGGCTGCCCACCCCAGTCACT  
GCCAGAGCCTCCCACCTGAGTGTTCCCTCCCGGCACTGGAAGCCAGTGGCCGTCCAGAGGAACGTGATTGAATTGC  
TGTATATCCATCTGGTGGAGCACTGCTGTGTGTCTGTTAAAAAAGAAACCATAGGTTTTTAGGGATATGTAATGA  
TAATTTAGAAAGGGTTTAAGAGACAGTAAAGCTTGGCAGAATAAACCGTGTATACAGAATGGATGTTTGCTTGCAT  
AAATAAATTTATATAAATATGTCTGGGGGATAAAAAATAAGTATATCACAATGCTAAGACAGGCATATGGGGAATT  
TAAGCTTTTCTTTATACTTGTCCATAGTTTCCAATTTTAAATTTGTAATTTTTTATCAGAAAAATAAATGTGTA  
AATATAGTGAATCTTTATTAAACATTCACTTTTATTGTCTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1131**

GGCACGAGGATTTCTCATCGTCAAGCTTTGTTCTCGTGGGGGCTAGAAATCTCTTTCCAGTTCCAGATTGTGA  
AGGGTTCTGAGTAAGCAGCGTGTCTCCATCCCCCTCTCTAGGGGGCTCTTGGATGGACCTTGCACTCTAGAAGGG  
ACAATGGACTTCTGGCTTTGGCCACTTTACTTCTGCCAGTATCGGGGGCCCTGAGGATCCTCCCAGAAGTAAAG  
GTAGAGGGGGAGCTGGGCGGATCAGTTACCATCAAGTGCCCACTTCTGAAATGCATGTGAGGATATATCTGTGC  
CGGGAGATGGCTGGATCTGGAACATGTGGTACCGTGGTATCCACCACCAACTTCATCAAGGCAGAATACAAGGGC  
CGAGTTACTCTGAAGCAATACCCACGCAAGAATCTGTTCTTAGTGGAGGTAACACAGCTGACAGAAAGTGACAGC  
GGAGTCTATGCCTGCGGAGCGGGCATGAACACAGACCGGGGAAAGACCCAGAAAGTCACCCTGAATGTCCACAGT  
GAATACGAGCCATCATGGGAAGAGCAGCCAATGCCTGAGACTCCAAAATGGTTTCATCTGCCCTATTTGTTCCAG  
ATGCCTGCATATGCCAGTTCTTCCAAATTCGTAACCAGAGTTACCACACCAGCTCAAAGGGGCAAGGTCCCTCCA  
GTTACCACTCCTCCCCACCACCCAAATCACCCACCGCCCTCGAGTGTCCAGAGCATCTTCAGTAGCAGGTGAC  
AAGCCCCGAACCTTCTGCCATCCACTACAGCCTCAAAAATCTCAGCTCTGGAGGGGCTGCTCAAGCCCCAGACG  
CCCAGCTACAACCACCACACAGGCTGCACAGGCAGAGAGCACTGGACTATGGCTCACAGTCTGGGAGGGAAGGC  
CAAGGATTTACATCCTGATCCCCGACCATCCTGGGCCTTTTCTGCTGGCACTTCTGGGGCTGGTGGTGAAAAGG  
GCCGTTGAAAAGGAGGAAAGCCCTCTCCAGGCGGGCCCCGCCGACTGGCCGTGAGGATGCGCGCCCTGGAGAGCTCC  
CAGAGGCCCCCGCGGGTCGCCGCGACCGCGCTCCCCAAAACAACATCTACAGCGCCTGCCCCGCGGCGCGCTCGTGGA  
GCGGACGCTGCAGGCACAGGGGAGGCCCCCGTTCCCGGCCCCGGAGCGCCGTTGCCCCCGCCCCGCTGCAGGTG  
TCTGAATCTCCCTGGCTCCATGCCCCATCTCTGAAGACCAGCTGTGAATACGTGAGCCTCTACCACCAGCCTGCC  
GCCATGATGGAGGACAGTGATTAGATGACTACATCAATGTTCTGCTGCTGCAACTCCCCAGCTATCCCCCAACC  
CCAGGCTCGGACTGTGGTGCCAAGGAGTCTCATCTATCTGCTGATGTCCAATACCTGCTTCATGTGTTCTCAGAG  
CCCTCATCACTTCCCATGCCCCATCTCGACTCCCATCCCCATCTATCTGTGCCCTGAGCATGGCTCTGCCCCCAG  
GTCGTCTTGACACCTTGCGAGCCCCCTGTAGTTGACAGGTAAGCTGTAGGCATGTAGAGCAATTGTCCCAATGC  
CACTTGCTTCTTTCCAAGCCGTCGAACAGACTGTGGGATTTGCAGAGTGTTCCTTCATGTCTTTGACCACAGG  
GTTGTTGCTGCCCAGGCTCTAGATCACATGGCATCAGGCTGGGGCAGAGGCATAGCTATTGTCTCGGGCATCCTT  
CCCAGGGTTGGGTCTTACACAAATAGAAGGCTCTTGCTCTGAGTTATGTGACATGCCTCAGCCCCATGGACTAAG  
CAGGGGTCTGGTATAAAAACACTCCTGGAAACGCCTTTGCCCTGATCCAAATGTTAGCACTTGCTAGTGAACGTC  
TACTTATCTCAAGTTCTATGCTAAAGGCAATTTATCTTGATGTGATGATAAACCAAACCTTATTAGCAAGATATGC  
ATATATATCAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1132**

MDFWLWPLYFLPVSGALRILPEVKVEGELGGSVTIKCPLPEMHVRIYLCREMAGSGTCGTVVSTTNFIKA EYKGR  
VTLKQYPRKNLFLVEVTQLTESDSGVYACGAGMNTDRGKTQKVTLNVHSEYEPSWEEQMPETPKWFHLPYLFQM  
PAYASSSKFVTRVITPAQRGKVPPVHHSSPTTQITHRPRVSRASSVAGDKPRTFLPSTTASKISALEGLLKQPOT  
SYNHHTRLHRQRALDYGSQSGREGQGFHILIPTILGLFLLALLGLVVKRAVERRKALSRRARRLAVRMRALESSQ  
RPRGSPRPRSQNNIYSACPRRARGADAAGTGEAPVPGPGAPLPPAPLQVSESPWLHAPSLKTSCEYVSPLYHQPA  
MMEDSDSDDYINVPA

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**FIGURE 1133**

GGCACGAGGATTTCTCATCGTCAAGCTTTGTTCTCGTGGGGGCTAGAAATCTCTTTCCAGTTCCAGATTGTGA  
AGGGTTCTGAGTAAGCAGCGTGTCTCCATCCCCCTCTCTAGGGGCTCTTGATGGACCTTGCACTCTAGAAGGG  
ACA**ATG**GACTTCTGGCTTTGGCCACTTTACTTCCTGCCAGTATCGGGGGCCCTGAGGATCCTCCAGAAGTAAAG  
GTAGAGGGGAGCTGGGCGGATCAGTTACCATCAAGTGCCCACTTCCTGAAATGCATGTGAGGATATATCTGTGC  
CGGGAGATGGCTGGATCTGGAACATGTGGTACCGTGGTATCCACCACCAACTTCATCAAGGCAGAATACAAGGGC  
CGAGTTACTCTGAAGCAATACCCACGCAAGAATCTGTTCTTAGTGGAGGTAACACAGCTGACAGAAAGTGACAGC  
GGAGTCTATGCCTGCGGAGCGGGCATGAACACAGACCGGGGAAAGACCCAGAAAGTCACCCTGAATGTCCACAGT  
GAATACGAGCCATCATGGGAAGAGCAGCCAATGCCTGAGACTCCAAAATGGTTTCATCTGCCCTATTTGTTCCAG  
ATGCCTGCATATGCCAGTTCTTCCAAATTCGTAACCAGAGTTACCACACCAGCTCAAAGGGGCAAGTCCCTCCA  
GTTCACTACTCTCCCCCACCACCCAAATCACCCACCGCCCTCGAGTGTCCAGAGCATCTTCAGTAGCAGGTGAC  
AAGCCCCGAACCTTCTGCCATCCACTACAGCCTCAAAAATCTCAGCTCTGGAGGGGGCTGCTCAAGCCCCAGAGC  
CCCAGCTACAACCACCACACCAGGCTGCACAGGCAGAGAGCACTGGACTATGGCTCACAGTCTGGGAGGGAAGGC  
CAAGGATTTACATCCTGATCCCGACCATCCTGGGCCCTTTTCTGCTGGCACTTCTGGGGCTGGTGGTGAAAAGG  
GCCGTTGAAAGGAGGAAAGCCCTCTCCAGGCGGGGCCCGCCGACTGGCCGTGAGGATGCGCGCCCTGGAGAGCTCC  
CAGAGGCCCCGCGGGTCGCCGCGACCGCGCTCCCAAACAACATCTACAGCGCCTGCCCCGCGCGCGCTCGTGGA  
GCGGACGCTGCAGGCACAGGGGAGGCCCCGTTCCCGGCCCCGAGCGCCGTTGCCCCCGCCCCGCTGCAGGTG  
TCTGAATCTCCCTGGCTCCATGCCCCATCTCTGAAGACCAGCTGTGAATACGTGAGCCTCTACCACCAGCCTGCC  
GCGATGATGGAGGACAGTGATTGAGATGACTACATCAATGTTCTGCTGCT**TGAC**AACTCCCCAGCTATCCCCAACC  
CCAGGCTCGGACTGTGGTGCCAAGGAGTCTCATCTATCTGCTGATGTCCAATACCTGCTTCATGTGTTCTCAGAG  
CCCTCATCACTTCCCATGCCCCATCTCGACTCCCATCCCCATCTATCTGTGCCCTGAGCATGGCTCTGCCCCAG  
GTCGTCTTGACACCTTGGCAGCCCCCTGTAGTTGACAGGTAAGCTGTAGGCATGTAGAGCAATTGTCCCAATGC  
CACTTGCTTCTTTTCCAAGCCGTCGAACAGACTGTGGGATTTGCAGAGTGTCTTCCATGTCTTTGACCACAGG  
GTTGTTGCTGCCCAGGCTCTAGATCACATGGCATCAGGCTGGGGCAGAGGCATAGCTATTGTCTCGGGCATCCTT  
CCCAGGGTTGGGTCTTACACAAATAGAAGGCTCTTGCTCTGAGTTATGTGACATGCCTCAGCCCCATGGACTAAG  
CAGGGGTCTGGTATAAAAAACA**CT**CCTGGAAACGCCTTTGCCCTGATCCAAATGTTAGCACTTGCTAGTGAACGTC  
TACTTATCTCAAGTTCTATGCTAAAGGCAATTTATCTTGATGTGATGATAAACCAA**ACT**TATTAGCAAGATATGC  
ATATATATCAAAAAAAAAAAAAAAAAA

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**FIGURE 1134**

MDFWLWPLYFLPVSGALRILPEVKVEGELGGSVTIKCPLPEMHVRIYLCREMAGSGTCGTVVSTTNFIKA EYKGR  
VTLKQYPRKNLFLVEVTQLTESDSGVYACGAGMNTDRGKTQKVTLNVHSEYEPSWEEQMPETPKWFHLPYLFQM  
PAYASSSKFVTRVTTPAQRGKVPPVHHSSPTTQITHRPRVSRASSVAGDKPRTFLPSTTASKISALEGLLKPTP  
SYNHHTRLHRQRALDYGSQSGREGQGFHILPTILGLFLLALLGLVVKRAVERRKALSRRARRLAVRMRALESSQ  
RPRGSPRPRSQNNIYSACPRRARGADAAGTGEAPVPGPGAPLPPAPLQVSESPWLHAPSLKTSCEYVS LYHPAA  
MMEDSDSDDYINVPA

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**FIGURE 1135**

AGGGGCGGGCCCGGCGCGCGGGGAAGTCTCTGTAGGGCGGCCGGCTACCCTCAGCCGCCGCGCGTCA**ATG**CCCT  
TTCGGTGCCCGGCTACTCACCGGGCTTCCGAAAGCCGCCGAGGTAGTGC GGCTCCGACGGAAGGGCCCGGAG  
CCGTGGAGCTGCCGCCTCCCCGCCCGTGAGCTGACGGAGCCGGCGGCCGCCGAGCCGCCCTGGTGGCGGGGCT  
GCCTCTTCGCCCTTTCCCTGCTGCGGGGGCAGAGGCGGTGGCAGCGGCGGCGGCCCGGCGCTGCTCGGAGGAA  
CCCCCTCGCCCGCTGGACAACCGACCGCGGGTTCGCCGCGAGCCCCCGACGGGCGGCCCGCGAGCAGCCGGA  
GGCCCCGGTCCCGTTTTAGATTCTAATCAAGAAAATGATTGCTATGGGAAGAGAAGTTTCTGAAAGAACAAC  
TGTTACTGAATTACCTCAGACTTCACATGTATCATTCTCCGAGCCTGATATTCCGTCCTCAAAAAGTACTGAGTT  
ACCTGTGGACTGGAGTATTAAACGCGACTCCTTTTACCTCTTCTCAACCCTTTACCTGGGCAGATCATTGAA  
AGCACAGGAAGAAGCTCAAGGTCTTGTCCAGCATTGTAGGGCAACAGAAGTTACTTTGCCTAAAAGTATACAGGA  
TCCCAAACTCTCCTCTGAGCTCCGTTGTACCTTCCAGCAGAGCCTTATCTATTGGCTCCACCCTGCTTTGTCTTG  
GCTACCACTGTTCCCTCGTATTGGAGCTGATAGAAAAATGGCTGGAAAGACAAGTCCTTGGTCAAATGATGCAAC  
CCTGCAGCATGTTTTAATGAGTGACTGGTCTGTGAGCTTTACTTCTCTATATAATTTGCTGAAGACAAAACCTTG  
CCCCATTTTCTACGTTTGTACCTATCAGTTTACTGTCTGTTCCGAGCAGCAGGATTAGCTGGAAGTGACTTAAT  
CACAGCTCTCATATCTCCAACAACCTCGAGGTTTTAAGAGAAGCTATGAGAAATGAAGGTATTGAATTTTCTCTGCC  
TTTAATAAAAAGAAAGTGGCCATAAGAAGGAGACAGCATCTGGAACAAGCTTGGGATATGGGGAGGAGCAAGCCAT  
CAGTGATGAGGATGAAGAGGAAAGTTTTTCTGGCTGGAAGAGATGGGTGTGCAAGATAAAATTA AAAAGCCAGA  
CATACTTTCTATCAAGCTGCGTAAAGAGAAACATGAAGTACAAATGGATCACAGACCTGAATCTGTTGTGTTGGT  
AAAAGGAATCAACACCTTTACATTGCTCAATTTTTTGATTAACTCTAAGAGTTTAGTTGCTACCTCAGGTCCACA  
GGCAGGACTTCTCCAACCCTCTTGTCCCCTGTTGCTTTCCGAGGTGCCACAATGCAAATGCTTAAGGCACGGAG  
TGTGAATGTGAAGACACAAGCTCTTCTGGATACAGAGACCAATTTAGTTTGGAGATTACAGGTCTATCATGCC  
TCATTCTCTGCATTCACTGACCATGCTGCTCAAATCTTCACAGAGTGGATCTTTCTCTGCAGTACTGTATCCACA  
CGAGCCAACTGCTGTATTTAACATCTGCCTGCAAATGGACAAAGTACTTGATATGGAGGTTGTTTATAAGGAGCT  
TACTAACTGTGGTTTGCACCCTAACACTCTGGAGCAACTTAGTCAAATACCGTTACTTGGGAAATCATCTTTACG  
GAATGTGGTGCTGAGAGACTACATTTATAATTGGAGATCC**TGA**ACACCAAAGTAAGCCTAAAAGGAATCTTTGAG  
GAAAAAGCCTTCTAGCAAGGAAATTCAAGATTCTTGAAGTTGAAGGAATATACTGAAATGTTTATAAACATAAC  
TTTTACTACAGTAGCATCTAAGGTTTTAAATGTGTTTTACTATTTTCAGATTAGATTTTATAGATATAAAGATGAA  
AAACTCAGATAACTCAAATGAGATATCTATATCCCTACAACCTAATTGTATATTGAGCAGAACTGAATTAATAT  
GCTTCCTTGCAAATGGGAAATCACATAGCAGTTACCCCATGGCATTGTGACTAATGGCATCAGGGCAAAAATATG  
TTACTTTACGATTACCTGTTAGCAGGTTCTTGTTCATAAAGGTAGAAAATAAATACAGACAACATCTAAAAAA  
AAAAAAAAAAAAAA

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**FIGURE 1136**

MALSVPGYSPGFRKPPEVRLRRKRARSRGAAASPPRELTEPAARRAALVAGLPLRPFFPAAGGRGGGSGGGPAAA  
RRNPFARLDNRPRVAAEPPDGPAREQPEAPVPFLDSNQENDLLWEEKFPERTTVTELPQTSHVSFSEPDIPSSKS  
TELPVDWSIKTRLLFTSSQPFTWADHLKAQEEAQGLVQHCRATEVTLPKSIQDPKLSSELRCFTFQQSLIYWLHPA  
LSWLPLFPFRIGADRKMAGKTSPWSNDATLQHVLMSDWSVSFTSLYNLLKTKLCPYFYVCTYQFTVLFRAAGLAGS  
DLITALISPTTRGLREAMRNEGIEFSLPLIKESGHKKETASGTS LGYGEEQAISDEDEEESFSWLEEMGVQDKIK  
KPDILSIKLRKEKHEVQMDHRPESVVLVKGINTFTLLNFLINSKSLVATSGPQAGLPPTLLSPVAFRGATMQMLK  
ARSVNVKTQALSGYRDQFSLEITGPIMPHSLHSLTMLLKSSQSGSFSAVLYPHEPTAVFNICLQMDKVLDMEVVH  
KELTNCGLHPNTLEQLSQIPLLKGSSLRNVVLRDYIYNWRS

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**FIGURE 1137**

CGGACGCGTGGGGAGAGGCTGTTTACCAGAACAGCATAACAAGGGCAGGTCTGACTGCAAGGCTGGGACTGGGAG  
GCAGAGCCGCCGCCAAGGGGGCCTCGGTAAACACTGGTCGTTCAATCACCTGCAAGACGAAGGAGGCAAGG**ATG**

CTGTTGGCCTGGGTACAAGCATTCCTCGTCAGCAACATGCTCCTAGCAGAAGCCTATGGATCTGGAGGCTGTTTC  
TGGGACAACGGCCACCTGTACCGGGAGGACCAGACCTCCCCCGCGCCGGGCCTCCGCTGCCTCAACTGGCTGGAC  
GCGCAGAGCGGGCTGGCCTCGGCCCCGTGTGGGGGCGCGCAATCACAGTTACTGCCGAAACCCGGACGAGGAC  
CCGCGCGGGGCCCTGGTGCTACGTACGTGGCGAGGCCGGCGTCCCTGAGAAACGGCCTTGCGAGGACCTGCGCTGT  
CCAGAGACCACCTCCCAGGCCCTGCCAGCCTTACGACAGAAATCCAGGAAGCGTCTGAAGGGCCAGGTGCAGAT  
GAGGTGCAGGTGTTGCTCCTGCCAACGCCCTGCCCCGCTCGGAGTGAGGCGGCAGCTGTGCAGCCAGTGATTGGG  
ATCAGCCAGCGGGTGCGGATGAACTCCAAGGAGAAAAAGGACCTGGGAACTCTGGGCTACGTGCTGGGCATTACC  
ATGATGGTGATCATCATTGCCATCGGAGCTGGCATCATCTTGGGCTACTCCTACAAGAGGGGGAAGGATTTGAAA  
GAACAGCATGATCAGAAAGTATGTGAGAGGGAGATGCAGCGAATCACTCTGCCCTTGTCTGCCTTCACCAACCCC  
ACCTGTGAGATTGTGGATGAGAAGACTGTCGTGGTCCACACCAGCCAGACTCCAGTTGACCCTCAGGAGGGCAGC  
ACCCCCCTTATGGGCCAGGCCGGGACTCCTGGGGCC**TGAG**CCCCCCCCAGTGGGCAGGAGCCCATGCAGACACTGG  
TGCAGGACAGCCACCTCCTACAGCTAGGAGGAATACCACTTTGTGTTCTGGTTAAACCCCTACCACTCCCCC  
GCTTTTTTGGCGAATCCTAGTAAGAGTGACAGAAGCAGGTGGCCCTGTGGGCTGAGGGTAAGGCTGGGTAGGGTC  
CTAACAGTGCTCCTTGTCCATCCCTTGGAGCAGATTTTGTCTGTGGATGGAGACAGTGGCAGCTCCACAGTGAT  
GCTGCTGCTAAGGGCTTCCAAACATTGCCTGCACCCCTGGAAGTGAACCAGGGATAGACGGGGAGCTCCCCCAGG  
CTCCTCTGTGCTTTACTAAGATGGCCTCAGTCTCCACTGTGGGCTTGAGTGGCATACTGTTATTTCATGGTTAA  
GGTAAAGCAGGTCAAGGGATGGCATTGAAAAATATATTTAGTTTTTAAAATATTTGGGATGGAACCTCCTACTG  
ACCTCTGAGAACTGGAAACGAGTTTGTACAGAAGTCAGAACTTTGGGTTGGGAATGAGATCTAGGTTGTGGCTGC  
TGGTATGCTTCAGCTTGCTGGCAATGATGTGCCTTGACAACCGTGGGCCAGGCCTGGGCCCAGGGACTCTTCCTG  
TTTCATAAGGAAAGGAAGAATTGCACTGAGCATTCCACTTAGGAAGAGGATAGAGAAGGATCTGCTCCGCCTTG  
GCCACAGGAGCAGAGGCAGACCTGGGATGCCCCAGTTTCTCTTCAGGGATGGATAGTGACCTGTCTTCATTTTGC  
ACAGGTAAGAGAGTAGTTAGCTAACCTATGGGAATTATACTGTGGGGCCTTGTGAGCTGCTTCTAAGAGGCTAAC  
CTGGAAACTAAGCTCAGAGGCAAGGTAATAAAGCACTTCAGGGCTTGCTCCCCAAGTGGGCCTGATTTAGCAGGT  
GGTCCTGCGGGCGTCCAGGTACGACCTTCCTGTAGGGCACTGGGGCTAGGGTCACAGCCCTAACTCATAAAGC  
AATCAAAGAACCATTAGAAAGGGCTCATTAAAGCCTTTTGGACACAGGACCCCAGAGAGGAAAAAGTGACTTGCCC  
AAGGTCGTAAGCAAGCTACTGGCATGGCAAGAGCCCAGCTTCCTGACGGAGCGCAACATTTCTCCACTGCACTGT  
GCTAGCAGCTCAGCAGGGCCTCTAACCTGTGATGTCACACTCAAGAGGCCTTGGCAGCTCCTAGCCATAGAGCTT  
CCTTTCCAGAACCCTTCCACTGCCCAATGTGGAGACAGGGGTTAGTGGGGCTTTCTATGGAGCCATCTGCTTTGG  
GGACCTAGACCTCAGGTGGTCTCTTGGTGTAGTGATGCTGGAGAAGAGAATATTACTGGTTTCTACTTTTCTAT  
AAAGGCATTTCTCTATATACATGTTTTATATACCTCATTCTGACACCTGCATATAGTGTGGGAAATTGCTCTGCA  
TTTGA



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**FIGURE 1138**

MLLAWVQAFLVSNMLLAEAYGSGGCFWDNGHLYREDQTSPAPGLRCLNWLDASGLASAPVSGAGNHSYCRNPDE  
DPRGPWCYVSGEAGVPEKRPCEDLRCPETTSQALPAFTTEIQEASEGPGADEVQVFAPANALPARSEAAAVQFVI  
GISQVRMNSKEKKDLGTLGYVLGITMMVIIAIGAGIILGYSYKRGKDLKEQHDQKVCEREMQRITLPLSAFTN  
PTCEIVDEKTVVVHTSQTPVDPQEGSTPLMGQAGTPGA

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**FIGURE 1139**

CGGACGCGTGGGGAGAGGCTGTTTACCAGAACAGCATAACAAGGGCAGGTCTGACTGCAAGGCTGGGACTGGGAG  
GCAGAGCCGCCGCCAAGGGGGCCTCGGTTAAACACTGGTCTGTTCAATCACCTGCAAGACGAAGGAGGCAAGG**ATG**

CTGTTGGCCTGGGTACAAGCATTCTCGTCAGCAACATGCTCCTAGCAGAAGCCTATGGATCTGGAGGCTGTTTC  
TGGGACAAACGGCCACCTGTACCGGGAGGACCAGACCTCCCCCGCGCCGGGCCTCCGCTGCCTCAACTGGCTGGAC  
GCGCAGAGCGGGCTGGCCTCGGCCCGCGTGTCTGGGGGCCGGCAATCACAGTTACTGCCGAAACCCGGACGAGGAC  
CCGCGCGGGCCCTGGTGCTACGTTCAGTGGCGAGGCCGGCGTCCCTGAGAAACGGCCTTGCGAGGACCTGCGCTGT  
CCAGAGACCACCTCCCAGGCCCTGCCAGCCTTCACGACAGAAATCCAGGAAGCGTCTGAAGGGCCAGGTGCAGAT  
GAGGTGCAGGTGTTTCGCTCCTGCCAACGCCCTGCCCGCTCGGAGTGAGGCGGCAGCTGTGCAGCCAGTGATTGGG  
ATCAGCCAGCGGGTGCGGATGAACTCCAAGGAGAAAAAGGACCTGGGAACTCTGGGCTACGTGCTGGGCATTACC  
ATGATGGTGATCATCATTGCCATCGGAGCTGGCATCATCTTGGGCTACTCCTACAAGAGGGGGGAAGGATTTGAAA  
GAACAGCATGATCAGAAAGTATGTGAGAGGGAGATGCAGCGAATCACTCTGCCCTTGTCTGCCTTCACCAACCCC  
ACCTGTGAGATTGTGGATGAGAAGACTGTCTGGTCCACACCAGCCAGACTCCAGTTGACCCCTCAGGAGGGCAGC  
ACCCCCCTTATGGGCCAGGCCGGGACTCCTGGGGCC**TGAG**CCCCCCCCAGTGGGCAGGAGCCCCATGCAGACACTGG  
TGCAGGACAGCCCACCCTCCTACAGCTAGGAGGAACTACCACCTTTGTGTTCTGGTTAAACCCCTACCCTCCCC  
GCTTTTTTGGCGAATCCTAGTAAGAGTGACAGAAGCAGGTGGCCCTGTGGGCTGAGGGTAAGGCTGGGTAGGGTC  
CTAACAGTGCTCCTTGTCCATCCCTTGAGCAGATTTTGTCTGTGGATGGAGACAGTGGCAGCTCCCACAGTGAT  
GCTGCTGCTAAGGGCTTCCAAACATTGCCTGCACCCCTGGAAGTGAACCAGGGATAGACGGGGAGCTCCCCCAGG  
CTCCTCTGTGCTTTACTAAGATGGCCTCAGTCTCCACTGTGGGCTTGAGTGGCATACTGTTATTTCATGGTTAA  
GGTAAAGCAGGTCAAGGGATGGCATTGAAAAAATATATTTAGTTTTTAAAATATTTGGGATGGAATCCCTACTG  
ACCTCTGAGAACTGGAACGAGTTTGTACAGAAGTCAGAACTTTGGGTTGGGAATGAGATCTAGGTTGTGGCTGC  
TGGTATGCTTCAGCTTGCTGGCAATGATGTGCCTTGACAACCGTGGGCCAGGCCTGGGCCCAGGGACTCTTCCTG  
TTTCATAAGGAAAGGAAGAATTGCACTGAGCATTCCTAGGAAGAGGATAGAGAAGGATCTGCTCCGCCTTTG  
GCCACAGGAGCAGAGGCAGACCTGGGATGCCCCAGTTTCTCTTCAGGGATGGATAGTGACCTGTCTTCATTTTGC  
ACAGGTAAGAGAGTAGTTAGCTAACCTATGGGAATTATACTGTGGGGCCTTGTGAGCTGCTTCTAAGAGGCTAAC  
CTGGAAACTAAGCTCAGAGGCAAGGTAATAAAGCACTTCAGGGCTTGCTCCCCAAGTGGGCCTGATTTAGCAGGT  
GGTCCTGCGGGCGTCCAGGTGAGCACCTTCCTGTAGGGCACTGGGGCTAGGGTCACAGCCCCTAATCATAAAGC  
AATCAAAGAACCATTAGAAAGGGCTCATTAAAGCCTTTTGGACACAGGACCCCAGAGAGGAAAAAGTGACTTGCCC  
AAGGTCGTAAGCAAGCTACTGGCATGGCAAGAGCCCAGCTTCCTGACGGAGCGCAACATTTCTCCACTGCAGTGT  
GCTAGCAGCTCAGCAGGGCCTCTAACCTGTGATGTCACACTCAAGAGGCCCTTGGCAGCTCCTAGCCATAGAGCTT  
CCTTTCCAGAACCCTTCCACTGCCCAATGTGGAGACAGGGGTTAGTGGGGCTTTCTATGGAGCCATCTGCTTTGG  
GGACCTAGACCTCAGGTGGTCTCTTGGTGTAGTGATGCTGGAGAAGAGAATATTACTGGTTTCTACTTTTCTAT  
AAAGGCATTTCTCTATATACATGTTTTATATACCTCATTCTGACACCTGCATATAGTGTGGGAAATTGCTCTGCA  
TTTGACTTAATTAATAAAAAAAAAAAAAA

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**FIGURE 1140**

MLLAWVQAFIVSNMLLAEAYGSGGCFWDNGHLYREDQTSPAPGLRCLNWLDASGLASAPVSGAGNHSYCRNPDE  
DPRGPWCYVSGEAGVPEKRPCEDLRCPETTSQALPAFTTEIQEASEGPGADEVQVFAPANALPARSEAAAVQFVI  
GISQVRMNSKEKKDLGTLGYVLGITMMVIIAIGAGIILGYSYKRGKDLKEQHDQKVCEREMQRITLPLSAFTN  
PTCEIVDEKTVVHTSQTPVDPQEGSTPLMGQAGTPGA

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**FIGURE 1141**

GCGGAGCGCGCAGCGGGGGCTGCAGATTCTTTCCACCATGGCCAGACGCCCCGGAACAGCAGGGCCTGGCACTT  
CGTCCTGAGTGCAGCCCGCCGAGACGCAGATGCCC GGCCGTGGCTCTAGCAGGCTCCACTAACTGGGGCTACGA  
CTCTGATGGGCAGCACAGCGACTCGGACTCCGACCCCGAGTACTCCACGCTGCCGCCATCCATCCCCAGTGCGGT  
GCCCCGTGACCGGCGAGTCCTTCTGTGACTGTGCTGGGCAGAGCGAGGCCTCCTTCTGTAGCAGCCTGCACTCGGC  
CCACCGGGGCAGGGACTGCCGCTGCGGAGAGGAAGACGAGTATTCGACTGGGTCTGGGATGACTTAAATAAGTC  
ATCAGCCACCCTGCTGAGCTGTGACAACCGTAAGGTCAGCTTCCACATGGAGTACAGCTGCGGCACAGCGGCCAT  
CCGGGGCACCAAGGAGCTGGGGGAGGGCCAGCACTTCTGGGAGATCAAGATGACCTCTCCCGTCTACGGCACCGA  
CATGATGGTGGGCATCGGGACGTCGGATGTGGACCTGGACAAATACCGCCACACGTTCTGCAGCCTGCTGGGCAG  
GGATGAGGACAGCTGGGGCCTCTCCTACACGGGCCTCCTCCACCACAAGGGCGACAAGACCAGCTTCTCGTCGCG  
GTTTCGGCCAGGGCTCCATCATTGGCGTGCACCTGGACACCTGGCACGGCACACTCACCTTTTTCAAGAACAGGAA  
GTGTATAGGTGTGGCAGCCACCAAGCTGCAGAACAAGAGATTCTACCCGATGGTGTGCTCCACGGCGGGCCCGGAG  
CAGCATGAAGGTCACCCGCTCCTGTGCCAGCGCCACTTCCCTCCAGTACCTGTGCTGCCACCGCCTGCGCCAGCT  
GCGGCCAGACTCGGGAGACACGCTGGAGGGTCTGCCGCTGCCGCCGGGCCTCAAGCAGGTGCTACACAACAAGCT  
GGGCTGGGTCTTGAGCATGAGTTGCAGCCGCCGCAAGGCTCCAGTGTCCGATCCCCAGGCAGCGACCTCCGCCCCA  
CCCCAGCAGTCGCGAGCCTCGGCCCTGCCAGAGGAAGCGCTGCCGCCGGACCTGACTGACTTCCCAGTGGAAGT  
CCTTCTTGGGCTGGGACAGCCCCCTTTCCTCTGTCCCTTCTTCTCTGTCCCTTCCTTCCAGCCACACTCCAGGGC  
GGAGTTGGATGAGGCCCGTCCGGAGGGAGCCATCTCTTGCTCCCGAGGCTGGGACAGTCCTTTCTGTGGGGGCTC  
TAGGGCCCCCTCTGCTGCTGTGCTGGGTGGGGAAGCGGCTGCCCTGAGCCCCAGGTCTTGTGGGAGGCTGCGAGGA  
CGAGAGCCTGGCTGGAGCCCGCTTGCTGTTCCACAGGGCCTCGGTTTTTCCTAACTTGCTCTGCATGCTGTCA  
GCGGCTGCCCCGCCGTCATAGACTTAAAGGACTGCAATAAATGTAGAGTTGATGTCTAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAA

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**FIGURE 1142**

GTGTGAGCTGCGGCAGAGACTGGTGGCTGGAGGAGACGCCGGCGCTGGAGAGTGCGCTGCGCCGCCGCGCTG  
AGGGACCGCGGGTTAGCCACTGCTGGCTGCTTCCAGTGTTGCGCCGAGAGGTACCGGGGGTGACAGCTCCGGGAC  
CGGCCGAAAGGCGAGGAACCGGTGTGGAATTTAAAGAACACACATATTTTACTGGGGCTTTGATCAACCAAAT  
GCTAAAAAGCCACACAAAGAAGATCCCTAATAGTCATTTCTCAACAATTATATAGTCAACTGATGTAACA**ATGGT**  
ACTAATATTGGGACGCAGACTAAACAGAGAGGATCTTGGGGTGCGTGATTCCCCAGCAACTAAGCGAAAAGTTTT  
TGAAATGGACCCCAAATCTCTGACAGGTCATGAGTTTTTTGACTTCTCTTCAGGATCATCCCATGCCGAAAACAT  
ACTCCAGATATTTAATGAATTTTCGTGATAGCCGCTTATTCACAGATGTTATCATTGTGTGGAAGGAAAAGAATT  
TCCTTGCCATAGAGCTGTGCTCTCAGCCTGTAGCAGCTACTTCAGAGCTATGTTTTGTAATGACCACAGGGAAAG  
CCGAGAAATGTTGGTTGAGATCAATGGTATTTTAGCTGAAGCTATGGAATGTTTTTGCAGTATGTTTATACTGG  
AAAGGTGAAGATCACTACAGAGAATGTACAGTATCTCTTTGAGACATCAAGCCTCTTCAGATTAGTGTTCTCCG  
TGATGCATGTGCCAAGTTCTTGGAGGAGCAACTTGATCCTTGTAATTGCTTAGGAATCCAGCGCTTTGCTGATAC  
CCATTCACTCAAAACACTCTTCACAAAATGCAAAAATTTTGCGTTACAGACTTTTGAGGATGTATCCCAGCACGA  
AGAATTTCTTGAGCTTGACAAAGATGAACTTTATGTTGTCGGTGGCTATGATGGGCAAAACAGACTTAGCAGCGT  
AGAATGTTATGATTCCTTTTCAAATCGATGGACTGAAGTTGCTCCCTTAAGGAAGCCGTGAGTTCTCCTGCAGT  
GACTAGCTGTGTAGGCAAACCTGTTTGTGATTGGTGGAGGACCTGATGATAATACTTGTTCTGATAAGGTTCAATC  
TTATGATCCAGAAACCAATTCTTGGCTACTTCGTGCAGCTATCCCAATTGCCAAAAGGTGTATAACAGCTGTATC  
CCTAAACAACCTGATCTATGTTGCCGGTGGACTGACCAAGGCAATATGCTGTTACGATCCAGTTGAAGATTACTG  
GATGCACGTACAGAATACATTAGCCGTCAGGAAAACCTGTGGTATGTCTGTGTGTAATGGTAAAATATATATCCT  
GGGCGGAAGACGGGAAAATGGAGAAGCCACAGACACTATTCTCTGTTATGATCCTGCAACAAGTATCATCACAGG  
GGTAGCTGCAATGCCCAGGCCAGTGTCTATCATGGCTGTGTGACTATTCATAGATACAATGAGAAATGCTTTAA  
ACTCT**TGA**AGACAGGATACCTCACCGAAGAAGCCACACTGATCCAAGATGGGAGGTTTTAAAACTCTACAGTGGG  
AACTTCACATATCTCCTTTGTGCCATATGCAAAAATAGTAAAAATAATAATTTGGTGCCTTTCTCCTCAAAATA  
TCAATCTTTCAAACTATAATAAAGCCTTTCCTATAATTGAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1143**

MVLILGRRRLNREDLGVRDSPATKRKVFEMDPKSLTGHEFFDFSSGSSHAENILQIFNEFRDSRLFTDVIICVEGK  
EFPCHRAVLSACSSYFRAMFCNDHRESREMLVEINGILAEAMECFQYVYTGKVKITTENVQYLFETSSLFQISV  
LRDACAKFLEEQLDPCNCLGIQRFADTHSLKTLFTKCKNFALQTFEDVSQHEEFLELDKDELYVVGGYDGNRLS  
SVECYDSFSNRWTEVAPLKEAVSSPAVTSCVGKLFVIGGGPDDNTCSDKVQSYDPETNSWLLRAAPIAKRCITA  
VSLNNLIYVAGGLTKAICCYDPVEDYWMHVQNTFSRQENCGMSVCNGKIYILGGRRENGEATDTILCYDPATSI I  
TGVAAMP RPVS YHGCVTIHRYNEKCFKL

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**FIGURE 1144**

GATCAATGGTATTTTAGCTGAAGCT**ATG**GAATGTTTTTGCAGTATGTTTATACTGGAAAGGTGAAGATCACTAC  
AGAGAATGTACAGTATCTTTGAGACATCAAGCCTCTTTCAGATTAGTGTTCTCCGTGATGCATGTGCCAAGTT  
CTTGGAGGAGCAACTTGATCCTTGTAATTGCTTAGGAATCCAGCGCTTGCTGATACCCATTCACTCAAAACACT  
CTTCACAAAATGCAAAAATTTTGC GTTACAGACTTTTGAGGATGTATCCAGCACGAAGAATTTCTTGAGCTTGA  
CAAAGATGAACCTTATTGATTATATTTGTAGTGATGAACCTTGTTATTGGTAAAGAGGAGATGGTTTTTGAAGCCGT  
CATGCGTTGGGTCTATCGTGCCGTGATCTGAGAAGACCACTGTTACACGAGCTCCTGACACATGTGAGACTCCC  
TCTGTTGCATCCCAACTACTTTGTTCAAACAGTTGAAGTGGACCAATTGATCCAGAATTCTCCTGAGTGTTATCA  
GTTGTTGCATGAAGCAAGACGGTACCACATACTTGGAATGAAATGATGTCCCCAAGGACTAGGCCACGCAGGTC  
CACTGGCTATTCTGAGGTGATAGTTGTCGTTGGAGGATGTGAGCGAGTTGGAGGATTTAATCTTCCATACACTGA  
GTGCTACGATCCTGTAACAGGAGAATGGAAGTCTTTGGCTAAGCTTCCAGAATTTACCAAATCAGAGTATGCAGT  
CTGTGCTCTAAGGAATGACATTCTTGTTTTCAGGTGGAAGAATCAACAGCCGTGATGTCTGGATTTATAACTCACA  
GTTAAATATTTGGATCAGAGTTGCCICTCTCAATAAAGGCAGATGGCGTCACAAAATGGCTGTCCTCCTTGGTAA  
AGTATATGTTGTCGGTGGCTATGATGGGCAAAACAGACTTAGCAGCGTAGAATGTTATGATTCTTTTTCAAATCG  
ATGGACTGAAGTTGCTCCCCTTAAGGAAGCCGTGAGTTCTCCTGCAGTGACTAGCTGTGTAGGCAAACCTGTTTGT  
GATTGGTGGAGGACCTGATGATAATACTTGTTCTGATAAGGTTCAATCTTATGATCCAGAAACCAATTCTTGCT  
ACTTCGTGCAGCTATCCGAATTGCCAAAAGGTGTATAACAGCTGTATCCCTAAACAACCTGATCTATGTTGCCGG  
TGGACTGACCAAGGCAATATACTGTTACGATCCAGTTGAAGATTACTGGATGCACGTACAGAATACATTCAGCCG  
TCAGGTAATAAC**TGA**AGCAGTACAAAAGAAAAATAAATCTAAGAGGGACCAAGTACATAATCATTATTAATACA  
CTGGAATTTCAATTTTAAAATATTTCAGGCTGGGCGTGGTGGCTCACGCCTGTGGTCCCAGCACTTTGGGAGGCC  
GAGGTGGATAGATCACTTGAGGTCAGGAGTTCAAGACCAGCCTGGCTAATATGGTGAAACCCCGTCTCTACTAAA  
AAATTATGGCCAGGCGTGGTGGTTTCATGCCTGTAATCCCAGCACTTTGGGAGGCTGAGGCAGGCCAATCACCTGA  
GGTGGGAGTTTCGAGACCAGCCTGACCAACATGGAGAAACCCCGTCTCTGCTAAAAATACAAAATTAGCTGGGCG  
TGGTGGCGCATTGCCTGTAATCCCAGCTACTAGGGAGGCTGCGGCAGGAGAATTGCTTGAACCCGGGAGGTGGAG  
GTCGCGGTGAGCCGAGATCGAGCCATTGCACTCCAGCCTGGACAGCAGGAGCGAACTCCGTCTCAAAAATAAAT  
AAAAAAAAAAAAAAAAAAAA

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**FIGURE 1145**

MECFLQYVYTGKVKITTENVQYLFETSSLFQISVLRDACAKFLEEQLDPCNCLGIQRFADTHSLKTLFTKCKNFA  
LQTFEDVSQHEEFLELDKDELIDYICDELVIGKEEMVFEAVMRWVYRAVDLRRPLLHELLTHVRLPLLHPNYFV  
QTVEVDQLIQNSPECYQLLHEARRYHILGNEMMSPRTRPRRSTGYSEVIVVGGCERVGGFNLPTYECYDPVTGE  
WKS LAKLPEFTKSEYAVCALRNDILVSGGRINSRDVWIYNSQLNIWIRVASLNKGRWRHKMAVLLGKVYVVGGYD  
GQNRLLSSECYDSFSNRWTEVAPLKEAVSSPAVTSCVGKLFVIGGGPDDNTCSDKVQSYDPETNSWLLRAAIRIA  
KRCITAVSLNNLIYVAGGLTKAIYCYDPVEDYWMHVQNTFSRQVIT



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**FIGURE 1146**

GCAGAGGTGCGGCCGGGGAGGCGCGCGGAGGCTGGAGCTGGAGGCGCGGCCGGGTGAGCTGAGAACC**ATGT**GTG  
CTCAGTATTGCATCTCCTTTGCTGATGTTGAAAAAGCTCATATCAACATTCGAGATTCTATCCACCTCACACCAG  
TGCTAACAAGCTCCATTTTGAATCAACTAACAGGGCGCAATCTTTTCTTCAAATGTGAACCTTTCCAGAAAAACAG  
GATCTTTTAAAGATTCGTGGTGCTCTCAATGCCGTGAGAAGCTTGGTTCCTGATGCTTTAGAAAGGAAGCCGAAAG  
CTGTTGTTACTCACAGCAGTGGAACCATGGCCAGGCTCTCACCTATGCTGCCAAATTGGAAGGAATTCCTGCTT  
ATATTGTGGTGCCCCAGACAGCTCCAGACTGTAAAAAACTTGCAATACAAGCCTACGGAGCGTCAATTGTATACT  
GTGAACCTAGTGATGAGTCCAGAGAAAATGTTGCAAAAAGAGTTACAGAAGAAACAGAAGGCATCATGGTACATC  
CCAACCAGGAGCCTGCAGTGATAGCTGGACAAGGGACAATTGCCCTGGAAGTGCTGAACCAGGTTCTTTTGGTGG  
ATGCACTGGTGGTACCTGTAGGTGGAGGAGGAATGCTTGCTGGAATAGCAATTACAGTTAAGGCTCTGAAACCTA  
GTGTGAAGGTATATGCTGCTGAACCCCTCAAATGCAGATGACTGCTACCAGTCCAAGCTGAAGGGGAAACTGATGC  
CCAATCTTTATCCTCCAGAAACCATAGCAGATGGTGTCAAATCCAGCATTGGCTTGAACACCTGGCCTATTATCA  
GGGACCTTGTGGATGATATCTTCACTGTACAGAGGATGAAATTAAGTGTGCAACCCAGCTGGTGTGGGAGAGGA  
TGAAACTACTCATTGAACCTACAGCTGGTGTGGAGTGGCTGCTGTGCTGTCTCAACATTTTCAAACCTGTTTCCC  
CAGAAGTAAAGAACATTTGTATTGTGCTCAGTGGTGGAAATGTAGACTTAACCTCCTCCATAACTTGGGTGAAGC  
AGGCTGAAAGGCCAGCTTCTTATCAGTCTGTTTTCTGTTT**TAAT**TTACAGAAAAGGAAATGGTGGGAATTCAGTGTCT  
TTTAGATACTGAAGACATTTTGTTCCTAGTATTGTCAACTCTTAGTTATCAGATTCTTAATGGAGAGTGGCTAT  
TTCATTAAGATTTAATAGTTTTTTTTTGGACTAAGTAGTGAAAAAACTTTTATACTTAAGTACATTTTGTCAA  
GGCTAAAAAAAAGTCTTGCAAAATGGGGCAGTGGACTGACAGGCTGACATAGAAAATAAACTTTGCCCAATCACA  
ACTTGTGCCTCCCATCCCTGGAGTACTGACTGGCACCGGTAAGACAGAATCTCTCTGAATCCATTACTCCATGCC  
CCCTTGAGGCACTGTTGAAGAAATCTCACTTTTTCAGCCAGGGTACTGGTCTGGTACATATGGATCATAAGTCCA  
TTTGGGGAAGACTCGTTTATACAGGTTTCATCAGTACTGTGTCTTGAGATTTTAGCTTCCCATCAAAGCTGCATTT  
CATGTGGCCATGGGTACCTAGAAAGACATCAGAACAAAGTCGGTCAAATTAAGTAGAAAATTTTAAAGCAATGA  
CTTCCAACCCAACAGTCATTTAGCAACACTGCAGAAATGCAGACATGGTCTCAAATCCCGTGTTCCTTACCTAA  
AGGTTCTTGTATATGTCTCTCCGGCCCCACTTCGTTCTCAGTTCCTGTTTAAACCACAGCACATCTCTTA  
GAATCAAACACATTAAAGACCAAGATGAAACATTTACCCACAAAATGTAAACCCAACCTTTATACCACAAAGGCA  
ATCAGATCCCATCCTCCTCCTTCATACCCACCTCTGTTGAAGAACATGTAACGTACTACTGCCATCTTAGTAAAA  
ATTTTGAAGGATGACCACTCAGAACAACTCTCTTGATGACCATTCTGTCTGGATCTACTGACATAAGATGGCCT  
GTAGCAATGAGGCTGTGCATTCTTAAAGGACAAAAGCAAAAGAGCTATTTAGGAATTTACAGGCCAAAGTCTTCA  
TTTATTGCCCAGTCCATTTAAAGACCCATGCAAGAGCCTGGTTTGTCTATCCCTGCCCTAGCCCAATCTGAGGCTA  
AGATTGGTAAACTGTAAGCCCACACTTAACCTTGTCAATAGGTTCTTGAAAACCTTGACTTCAAGAGAAATGATG  
TATAACAAAACCATACTTTTTCTCATCAGTTGTTACAAGGAAAGGATGTTGAACAAAAGGCAGTTATTTGAGGAC  
TGGCTATACACTGTTTCACGTAAAAGTTGGAGTTTTTATTGTTCTATTAACAATGTTAAATGAAGACTTACTGTA  
TTTTGAAAACCATCATTACCTTCTCCATACCATTGGCTCCCAAATTTAAATAAACAAGAGAAAACGGTGTTCAT  
CT

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**FIGURE 1147**

MCAQYCISFADVEKAHINIRDSIHLPVLTSSILNQLTGRNLFFKCELFQKTGSFKIRGALNAVRSLVPDALERK  
PKAVVTHSSGNHGQALTYAAKLEGIPAYIVVPQTAPDCKKLAIQAYGASIVYCEPSDESRENVAKRVTEETEGIM  
VHPNQEPAVIAGQGTIALEVLNQVPLVDALVVPVGGGMLAGIAITVKALKPSVKVYAAEPSNADDCYQSKLK GK  
LMPNLYPPETIADGVKSSIGLNTWPIIRD LVDDIFTVTEDEIKCATQLVWERMKLLIEPTAGVGVAAVLSQHFQT  
VSPEVKNICIVLSGGNVDLTSSITWVKQAERPASYQSVSV

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**FIGURE 1148**

GGTTTTXTGGXXGGGGGTTTTCAACXCXGGCTCTTGTTCTTTTTGCAGGACCCATCGATTCTGAATTCGGCACGAG  
CATCAGTATGCTTATGGATTTGATGACAGGCATAGCCTGGGCATATCACCTCATTGGTAAAGGGCTAGAGCCTTT  
CTTTTTTATGGCACTTCTTTTTTTGAGATAGGGTCTTACTCTGTCACCCTGGCTAGAGTACACTGGTACAATCAC  
GGCTCAATGTAGGCTTAACCTCCTGGGCTCAGGTGTATGTCACCTATGCCCGGCTACTTTTTGTATTTTTTGGTAG  
AGACGGCTTCGCCACGTTGCCCAGGCTGCAAGCGATATGCCTAGGCTCAAGCGATCTGCCACCTCAACTTCCGG  
AAGTGCTGAGATTACAGGTGTGAGCCACTGCACCCAGCCTTGCTTTATTTTTTATTTTTTGAGAGGTATGATTC  
TTTCTAGAGATTTTTTCTCATGGCTACTATTAGATCAGGAATGGGTGATTGGAGATTATTAGATTCTAGGTAAAC  
TTCTACCACTTTACCCTAATACATAAACTTTTTCTAAATXAATGATGGAAGGAATXAAXXXAXCXXCCXCXT  
XXCCXCTAXTACAAAAXCXCTAGCCCTTAXAACXTTXXGXXAGCTXXXTTXXCCTXXXTXCCCXTXXTCXXXCC  
CCXXCCTXXTTXCCXXXCTXXCTCXAXCCCCACXAXTTXCXXTXXXXCTXCXXAATAXATTXCXCXCXTXXC  
TCCTCAXXXXCTXXTCXXXXCTCXX

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**FIGURE 1149**

ATTCTTCCATCATTTATTTAGGAAAAAGTTTTATGTATTAGGGTAAAGTGGTAGAAGTTAACCTAGAATCTAAT  
AATCTCCAATCACCCATTCCTGATCTAATAGTAGCCATGAGAAAAAATCTCTAGAAAGAATCATACCTCTCAAAA  
AATAAAAAATAAAACAAAGGCTGGGTGCAGTGGCTCACACCTGAGCCCAGGAGGTTAAGCCTACATTGAGCCGTG  
ATTGTACCAGTGTACTCTAGCCAGGGTGACAGAGTAAGACCCTATCTCAAAAAAAGAAGTGCCATAAAAAAGAAA  
GGCTCTAGCCCTTTACCAATGAGGTGATATGCCCAGGCTATGCCTGTGCATCAAATCCATTAACCTTCCTGGTGAT  
GGCCATGAGAAAGTCCAGCACACAAACCATGCCCCAGACTGCATCTGTGCATACACAGAGTAAAAGCCCTGCTGC  
TATACTATAAAATGGCACCTGAAAATAATCTCTACGGTATGTTTGAAAATTGGCAG

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**FIGURE 1150**

GC GAAGTGAAGGGTGGCCAGGTGGGGCCAGGCTGACTGAATGTATCTCCTAGCTATGGACTAAATAATACATGG  
GGGGAAATAAACAGTATTCATGAGGGTGAAAATGTGACCCAGCAGGAAAATTACAACATTTTTCAATTGACGTT  
GAATAGGATGAGTCATGGAATTTAAGTGATTTACTGAAGATTATACTACTGGTAGATAGAAGAGCTAAAGAAAGA  
TGGATACTATGATGCTGAATGTGCGGAATCTGTTTGAGCAGCTTGTGCGCCGGGTGGAGATTCTCAGTGAAGGAA  
ATGAAGTCCAATTTATCCAGTTGGCGAAGGACTTTGAGGATTTCCGTAAAAAGTGGCAGAGGACTGACCATGAGC  
TGGGGAAATACAAGGATCTTTTGATGAAAGCAGAGACTGAGCGAAGTGCTCTGGATGTTAAGCTGAAGCATGCAC  
GTAATCAGGTGGATGTAGAGATCAAACGGAGACAGAGAGCTGAGGCTGACTGCGAAAAGCTGGAACGACAGATTC  
AGCTGATTGAGAGATGCTCATGTGTGACACATCTGGCAGCATTCAACTAAGCGAGGAGCAAAAATCAGCTCTGG  
CTTTTCTCAACAGAGGCCAACCATCCAGCAGCAATGCTGGGAACAAAAGACTATCAACCATTGATGAATCTGGTT  
CCATTTTATCAGATATCAGCTTTGACAAGACTGATGAATCACTGGATTGGGACTCTTCTTTGGTGAAGACTTTCA  
AACTGAAGAAGAGAGAAAAGAGGCGCTCTACTAGCCGACAGTTTGTGATGGTCCCCCTGGACCTGTAAAGAAAA  
CTCGTTCCATTGGCTCTGCAGTAGACCAGGGGAATGAATCCATAGTTGCAAAAACACTACAGTGAAGTGTCCCAATG  
ATGGCGGGCCCATCGAAGCTGTGTCCACTATTGAGACTGTGCCATATTGGACCAGGAGCCGAAGGAAAACAGGTA  
CTTTACAACCTTGGAACAGTGAAGTCCACCCTGAACAGCAGGCAGCTGGAGCCAAGAACTGAGACAGACAGTGTGG  
GCACGCCACAGAGTAATGGAGGGATGCGCCTGCATGACTTTGTTTCTAAGACGGTTATTAAACCTGAATCCTGTG  
TTCCATGTGGAAGCGGATAAAATTTGGCAAATTATCTCTGAAGTGTGAGACTGTGCTGTGGTCTCTCATCCAG  
AATGTGCGGACCGCTGTCCCTTCCCTGCATTCCCTGATAGGAACACCTGTCAAGATTGGAGAGGGAATGC  
TGGCAGACTTTGTGTCCAGACTTCTCCAATGATCCCTCCATTGTTGTGCATTGTGTAAATGAGATTGAGCAAA  
GAGGTCTGACTGAGACAGGCCTGTATAGGATCTCTGGCTGTGACCGCACAGTAAAGAGCTGAAAGAGAAATTCC  
TCAGAGTGAAAACCTGTACCCCTCCTCAGCAAAGTGATGATATCCATGCTATCTGTAGCCTTCTAAAAGACTTTC  
TTCGAAACCTCAAAGAACCTCTTCTGACCTTTTCGCCTTAACAGAGCCTTTATGGAAGCAGCAGAAATCACAGATG  
AAGACAACAGCATAGCTGCCATGTACCAAGCTGTTGGTGAAGTGGCCAGGCCAACAGGGACACATTAGCTTTCC  
TCATGATTCACTTGCAGAGAGTGGCTCAGAGTCCACATACTAAATGGATGTTGCCAATCTGGCTAAAGTCTTTG  
GCCCTACAATAGTGGCCCATGCTGTGCCAATCCAGACCCAGTGACAATGTTACAGGACATCAAGCGTCAACCCA  
AGGTGGTTGAGCGCCTGCTTTCTTGCCTCTGGAGTATTGGAGTCAGTTCATGATGGTGGAGCAAGAGAACATTG  
ACCCCTACATGTCTATTGAAAACCTCAAATGCCTTTTCAACACCACAGACACCAGATATTAAAGTGAGTTTACTGG  
GACCTGTGACCCTCCTGAACATCAGCTTCTCAAGACTCCTTCATCTAGTTCCCTGTACAGAGAGTCCGTTCCA  
CCCTCACCAAGAACACTCCTAGATTTGGGAGCAAAAAGCAAGTCTGCCACTAACCTAGGACGACAAGGCAACTTTT  
TTGCTTCTCCAATGCTCAAGTGAAGTCAACATCTGCCTGTTACTTCCCAGCATTGACTGACTATAAGAAAGGACAC  
ATCTGTACTCTGCTCTGCAGCCTCCTGTACTCATTACTACTTTTAGCATTCTCCAGGCTTTTACTCAAGTTTAAAT  
TGTGCATGAGGGTTTTATTAAACTATATATATCTCCCTTCCCTCAAGTCACATAATATCAGCACTTTG  
TGCTGGTCATTGTTGGGAGCTTTTAGATGAGACATCTTCCAGGGGTAGAAGGGTTAGTATGGAATTGGTTGTGA  
TTCTTTTGGGGAAGGGGTTATTGTTCCCTTTGGCTTAAAGCCAAATGCTGCTCATAGAATGATCTTTCTCTAGT  
TTCATTTAGAAGTGAATTTCCGTGAGACAATGACAGAAACCTACCTATCTGATAAGATTAGCTTGTCTCAGGGTG  
GGAAGTGGGAGGGCAGGGCAAAGAAAGGATTAGACCAGAGGATTTAGGATGCCTCCTTCTAAGAACCAGAAGTTC  
TCATTCCCCATTATGAACTGAGCTATAATATGGAGCTTTCATAAAAAATGGGATGCATTGAGGACAGAAGTGA  
TGGGAGTATGCGTAGCTTTGATTGGATGATTAGGTCTTTAATAGTGTTGAGTGGCACAACTTGTAATGTGAA  
AGTACAACCTCGTATTTATCTCTGATGTGCCGCTGGCTGAAGTTGGGTTCAATTGGGGTCAAAGCCAGTTTTCT  
TTTAAAATTGAATTCATTCTGATGCTTGGCCCCATACCCCCAACCTTGTCAGTGGAGCCCAACTTCTAAAGGT  
CAATATATCATCCTTTGGCATCCCACTAACAATAAAGAGTAGGCTATAAGGGAAGATTGTCAATATTTTGTGGT  
AAGAAAAGCTACAGTCATTTTTCTTTGCACTTTGGATGCTGAAAATTTTCCCATGGAACATAGCCACATCTAGA  
TAGATGTGAGCTTTTTCTTCTGTTAAAATTATTCTTAATGTCTGTAAAAACGATTTTCTTCTGTAGAATGTTGA  
CTTCGTATTGACCCTTATCTGTAAAACACCTATTTGGGATAATATTTGGAAAAAAGTAAATAGCTTTTTTCAAAA  
TGAAAAA

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**FIGURE 1151**

MDTMMLNVRNLFEQLVRRVEILSEGNEVQFIQLAKDFEDFRKKWQRTDHELKGYKDLLMKAETERSALDVKLKHA  
RNQVDVEIKRRQRAEADCEKLERQIQLIREMLMCDTSGSIQLSEEQKSALAFLNRGQPSSSNAGNKRLSTIDESG  
SILSDISFDKTDDES LDWSSLVKTFKLKKREKRRSTSRQFVDGPPGPVKKTRSIGSAVDQGNESIVAKTTVTVPN  
DGGPIEAVSTIETVPYWTRSRRTGTLPWNDS STLNSRQLEPRTETDSVGT PQSNGGMRLHDFVSKTVIKPESC  
VPCGKRIKFGKLSLKCRDCRVVSHPECRDRCPLPCIPTLIGTPVKIGEGMLADFVSQTSPMIPSIVVHCVNEIEQ  
RGLTETGLYRISGCDRTVKELKEKFLRVKTVPLLSKVDDIHAICSLKDFLRNLKEPLLTFRNLNRAFMEAAEITD  
EDNSIAAMYQAVGELPQANRDTLAF LMIHLQ RVAQSPHTKMDVANLAKVFGPTIVAHAVPNPDPVTMLQDIKRQP  
KVVERLLSLPLEYWSQFMMVEQENIDPLHVIENSNAFSTPQTPDIKVSLLGPVTTPEHQLLKTPSSSSLSQRVRS  
TLTKNTPRFGSKSKSATNLGRQGNFFASPMLK

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**FIGURE 1152A**

GAGATGGTGCCATTGCACTCCAGCCTGAGCGACAAGAGCGAACTCTCTCTCAAAAAAAAAAAAAAAAAATCCAAT  
CCTGGCTGGGCGCAGTGGTTCATGCCTGTGCATCACAACACTTTGGAAGGCCAAGGTTAGAGGATTGCTTGAGCCC  
AGAAGTTCAAGACCAGCCTACGCAACATGGCAAGAACTTTCTCTACAAAAAACAAAAAAAAATTTTTTTTTTG  
AGACAGGGTTTCACTCTGTCAACCAGGCTGGAGAGCAGTGGCAGGATCTCAGCTCACTGCAACCTCTGCCTCCTGG  
GCTTAAGTGTCTTGTCTGCCTCAGCCTCCAGGTAGCTGGGATTATAGGCACGTGCCACCACGCTCAGCTAATTT  
TTGTACTTCTTAGTAGAGACTGTGTTTACCATGTTAGCCAGGCTGGTCTCCAACCTCTTGACCTCAGATAATCCA  
CCTGCCTTGGCGTGAGCCACAGCTCCTGGCCAAAAAAAAATTTTTTTTAAATTAGGCAGGTGTGGTGGCACATG  
CTTCAAGTCCAAGCGATTTGAGAGGCTGAGGTGGGAGGATTGCTTATGCCCAGGAGATCGATGATGCAGTGAGCT  
ATTGTAGTGCCACTGCCCTCCAGCATGGGCAACAGAGTAAGACCCTGTCTCAAAAAATAAAAAATAAAATAAATC  
CAAGCCTTTTGACTCCACAGCCACTCTTTGTATTGTACGTCAAGGGACAGGAGGAGCTTGCCGTTAATTGCTTCC  
GGGAACCTAGATACTAGGTTACACTGTCCTTTAAATTTAATTTTCTCTGTTCTTGTCTTACAGGATAACTATAA  
TGGGATGAGCTTTGTCTGTATTGGGGCTATCTTGGTCTTTGTAGCCTTCTTTGAAATTGGACCAGGCCCATTC  
CTGTTTTATTGTGGCCGAACCTCTTCAGCCAGGGCCCCCGCCAGCTGCGATGGCAGTGGCCGGCTGCTCCAACCTG  
GACCTCCAACCTTCTAGTCGGATTGCTCTTCCCTCCGCTGCTGTAAGTAAACTCACCTTATCTTAAACCAGCC  
TATGTAAGCTGACATGAAGATACTCCTTAATAACAGTAGTCTGGGCCTGGCATGGTGGCTCATGCCTGTAATC  
CTAGCACTGTGGGAGGCTGAGGCAGGTGGATCACCTGAGGTGAGGAGTTCAAGACCAGCCTGGCCAACATGGTGA  
AATTCAAAAATTAGCTGGGCATGGTGGTGCATGCCTGTAATTCAGCTACTTGGGAGATCGAGGAAGGAGAATCG  
CTTAAACCTGGGAGGTGGAGGTTGCAGCGAGCTGAGATCGCGCTACTGCACTCTAGCCTGCTCGATGGAAGCAAG  
ACTCCATCCCTAAATAAATAAAAAATACAGCAGTCCCTCCTCTTCTTCAGTTTCAGTTACCTGTAGTCTAAAAA  
TATTAAATGAAAATTGCAGAAATAAATAATTCATAAAGTTTAAATTTGCGGCCAGACACAGTGGCTCAAGCCTGT  
AATTCCAGCACTTTGAGAGGCCTAGGCGGGTGGATAACTTGAGGTGAGGAGTTGGGGACCAACCTGACTATCATG  
GTGAAACCCTGTTTCTACAATAAATACAAAAAATTAGGCCGGGTGTCGTGGCTCATGACTGTAATCCCAGTGAGCG  
AGATCACACCATTTGCGGTAGCACACACCTGTAGTCTTAGCTACTCAGAAGACTGAGGCAAGAGAATCACTTAAAC  
CCAGGAGGTGTTTCATGGTGAGCTGTGATCAACCTTCTGCTCTCCAGCCTGGGTGACAGAGCGAGATTCCGTCTCA  
AAAAAAAAAAAAATTCTATAAATAGAGATGGAGTTGCCAGGTTAGTCTCAAACCTGCTGGGTTCCAGTGATCCTCCC  
ACCTTGACCTCCCAAAGTGCTGGGATTATGGGCGTGAGCCACCGCACTCGGCCAGAAACACAGATTTTAAAAAT  
AATACTCAAAAGTCCAAAAATACTCAGTAGACATTTGGAAGCATCTAACTGTAATGAAATGGAATGACAGAAAGA  
AACTAGAGAGAACTACAGTAAGTTAGCAATGGAATCATAAGCGAATCTGAAGAAACCTGTTTTATTAAATATG  
GAAGGGTTATAGCTTGAAGCCTATTGGAATATGAATGTGAAGGAAATTGACTTTGTCAATGACCAGATTTTTAT  
ATCAACCTTCCTTTTTTCTGTCTTTCTCTAGCACTATTTAGGAGCCTACGTTTTTATTATCTTCACCGCTTCC  
TCATTACCTTCTTGGCTTTTACCTTCTCAAAGTCCCTGAGACCCGTGGCAGGACTTTTGAGGATATCACACGGG  
CCTTTGAAGGGCAGGCACACGGTGCAGATAGATCTGGAAGGACGGCGTCATGGAGATGAACAGCATCGAGCCTG  
CTAAGGAGACCACCACCAATGTCTAAGTCGTGCCCTCCTTCCACCTCCCTCCCGGCATGGGAAAGCCACCTCTCCC  
TCAACAAGGGAGAGACCTCATCAGGATGAACCCAGGACGCTTCTGAATGCTGCTACTTAATTCCTTTCTCATCCC  
ACGCACTCCATGAGCACCCCAAGGCTGCGGTTTGTGGATCTTCAATGGCTTTTTAAATTTTATTTCTGGACAT  
CCTCTTCTGCTTAGGAGAGACCGAGTGAACCTACCTTCAATTCAGGAGGGATTGGCCGCTTGGCACATGACAACT  
TTGCCAGCTTTTCTCCTTGGGTTCTGATATTGCCGCACTAGGGGATATAGGAGAGGAAAAGTAAGGTGCAGTT  
CCCCAACCTCAGACTTACCAGGAAGCAGATACATATGAGTGTGGAAGCCGGAGGGTGTATGTAAGAGCACCT  
TCCTCACTTCCATACAGCTCTACGTGGCAAAATTAACCTTGAGTTTTATTTATTTTATCTCTGGTTTAATTACATA  
ATTTTTTTTTTTTTACTTTAAGTTTCAGGATACATGTGCCGAATGTGCAGGTTTGTTACATAGGTATATATATGCC  
ATGATGGAATATTTATTTTTTTAAGCGTAATTTTGCCAAATAATAAAACAGAAGGAAATTGAGATTAGAGGGA  
GGTGTTTAAAGAGAGGTTATAGAGTAGAAGATTTGATGCTGGAGAGGTTAAGGTGCAATAAGAAATTTAGGGAGAA  
ATGTTGTTTATTATTGGAGGGTAAATGATGTGGTGCCTGAGGTCTGTACGTTACCTCTTAACAATTTCTGTCTT  
CAGATGGAACCTCTTTAACTTCTCGTAAAAGTCATATACCTATATAATAAAGCTACTGATTTCTTTGGAGCTTT  
TTTCTTTAAGATAATAGTTTACATGTAGTAGTACTTGAAATCTAGGATTATTAATAATAATGGGCATTGTAGTTA  
ATGATGGTTGATGGGTTCTAATTTTGGATGGAGTCCAGGGAAGAGAAAGTGATTTCTAGAAAGCCTGTTCCCTC  
ACTGGATGAAATAACTCCTTCTTGTAGTAGTCTCATTACTTTTGAAGTAATCCCGCCACCTATCTCGTGGGAGAG  
CCATCCAATAAGAAACCTAAATAATTGGTTCTTGGTAGAGATTCATTATTTTTCCACTTGTCTTTAGGAGA

**FIGURE 1152B**

TTTTAGGTGTTGATTTTCTGTTGTATTTTAACTCATACCTTTAAAGGAATTCCCCAAAGAATGTTTATAGCAAAC  
TTGGAATTTGTAACTCAGCTCTGGGAGAGGATTTTTTCTGAGCGATTATTATCTAAAGTGTGTTGTTGCTTTA  
GGCTCACGGCACGCTTGCCTATGTCTGTTACCATGTCACTGTGGTCCTATGCCGAATGCCCTCAGGGGACTTGAA  
TCTTTCCAATAAACAGGTTTAGACAGTATGAGTCAATGTGCAGTGTAGCCACACTTGAGAGGATGAATGTATG  
TGCACTGTCACTTTGCTCTGGGTGGAAGTACGTTATTGTTGACTTATTTTCTCTGTGTTTGTTCCTACAGCCCCCT  
TTTTCATATGTTGCTCAGTCTCCCTTTCCCTTCTTGGTGCTTACACATCTCAGACCCTTTAGCCAAACCCTTGTC  
AGTGACAGTATTTTGGTTCTTAGTTCTCACTGTTCCCTCTGCTCCTGGAGCCTTTGAATAAAAAATGCACGTAGCT  
GAGGCCGGATGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCTAGGCGGGCGGTGAGGGGTTGAGA  
CCAGTCTGGCCAACATCGTGAAACCCTGTCTCTACTAAAAATGCAAAAATTAGCCGGGCGTGGTGGCGGGCGCCT  
GTAATCCCAGCTACTTGGGAAGCTGAGGCGGGGAGAATCATGTGAACCCGGGACGCAGGGGTTGCAGTGAGCGGAG  
ATCGCATCATTGCACTCTAGCCTGGGCCACAGGGCGAGACTCCGTCTCAAAAAAAAAAAAAATGCACATAGCTATC  
GAGTGTGCTTTAGCTTGAAAAGGTGACCTTGCAACTTCATGTCAACTTCTGGCTCCTCAAACAGTAGGTTGGCAG  
TAAGGCAGGGTCCCATTTCTCACTGAGAAGATTGTGAATATTTCCATATGGATTTTCTATTGTTACTCTGGTTCT  
TTGTTTTAAAAATAAAAAATTCTGAATGTACACGACATTATGGGCTTATTTACTTTTTGTCTTCTGTACCACAAA  
ATGAGCTCTAAATCCTGACTTGGCTACTC



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**FIGURE 1153**

ATAATCTTCATTCCCTGGGTTCTCCACTTCAATAGTCGTGGCAGTGCTGCTGAATTTGCAGTTTTTCACATCATGA  
 CCAGGATTCTGGAAGCTACAAACAGTTTGTTTTTACCTCTGCCTCCTGGTTTTTCATACTCTGCACACCATCCTCG  
 GGGTCCAGTGTCTCCCTTTGCATAACCTGCTGCATTGCATTGACAGTGGAGTGTGTGCTTCTCACTGAAACAGCTG  
 TCATAAGGCTCATGAAAGATCTGGATAATACAGAGAAAAATGAAAAACTGAAATTCAGTATCATTGTGCGGCTTC  
 CTCCGCTTATTGGGCAGAAGATTTGTAGACTTTGGGATCATCCTATGAGTTCTAACATCATTTCGCGGAACACG  
 TGACGCGACTGCTTCAGAACTATAAGAAACAGCCTCGGAATTCTATGATTAACAAGTCATCGTTCAGTGTAGAAT  
 TTCTGCCTCTGAACTACTTCATTGAAATTCCTGACAGATATAGAGTCCTCCAATCAAGCCCTGTATCCTTTTGAAG  
 GACATGACAATGTGGATGCAGAATTTGTAGAGGAAGCAGCTCTGAAACACACCGCGATGCTTTTAGGCTTATGAA  
 AAAGAAAACGCAATTGGATCTGCTGCTGCCATTTTAACTCTTGCTCATTAACTTACTCCTCTGAGAATTCCTTAA  
 CAATATTTAAAAATTGGTAACAAAAATAGTTTAGCCATAATTGTTTAGCCATGTGAGTTTCAGGTTGGTACACGTT  
 CAGACAGAACTGCTGTATCACATTCCAATTTTGAATAGCCAGTGAGCAATCAAGTGTAGAGAAATGATAAATGGC  
 CTAAGAAGGCATACAGTGGCATAAACGATGCTCTTCCTAGTAGCTTAATAGGCCCAAGCTAGTTTCTGTTGCA  
 CTCTGAAATAAAATATGCTTTAAAAATGTAGGGAACAGTGCTTAGAAAAGCAAAACTAGGTGTGTCATTGAAAT  
 AATAGGCATAAAAAATTAAATGTTACATAAGAACACTATTTGGAAAAGAGGGTCCTTTTAAAACTGAATTTGTACT  
 AAATCAGATTTGCCATGTCCAGTACAGAATAATTTGTACTTAGTATTTGCAGCAGGGTTTGTCTTTGTGAATTCA  
 GATGAAACATATTTATTTTTTTTTTATTTATAAAAGGTTGATTTAGGAATATTTTGTGAGTCATTAAAAAACCTGA  
 AAACATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1154A**

CTCTCAGTGTCTCCAACCTTTGCGCTGGAAGAAAACTTCCCGCGCGCCGGCAGAAGCTGCAGCGCCTCCTTTTAGT  
GACTCCGGGAGCTTTCGGCTGTAGCCGGCTCTGCGCGCCCTTCCAACGAATAATAGAAATTGTTAATTTTAACAAT  
CCAGAGCAGGCCAACGAGGCTTTGCTCTCCCGACCCGAACATAAGCTCCCTCGCTCCGTGCGCTGTACGAGCGG  
TGTCTCCTGGGGCTCCAATGCAGCGAGCTGTGCCCGAGGGGTTTCGGAAGGCGCAAGCTGGGCAGCGAC**ATGGGGA**  
ACGCGGAGCGGGCTCCGGGGTCTCGGAGCTTTGGGCCCCGTACCCACGCTGCTGCTGCTCGCCGCGGCGCTACTGG  
CCGTGTGCGGACGCACTCGGGCGCCCCCTCCGAGGAGGACGAGGAGCTAGTGGTGCCGGAGCTGGAGCGCGCCCCGG  
GACACGGGACCACGCGCCTCCGCCTGCACGCCTTTGACCAGCAGCTGGATCTGGAGCTGCGGCCCCGACAGCAGCT  
TTTTGGCGCCCGGCTTACGCTCCAGAACGTGGGGCGCAATCCGGGTCCGAGACGCCGCTTCCGGAAACCGACC  
TGGCGCACTGCTTCTACTCCGGCACCGTGAATGGCGATCCCAGCTCGGCTGCCGCCCTCAGCCTCTGCGAGGGCG  
TGCGCGGCGCCTTCTACCTGCTGGGGGAGGCGTATTTTCATCCAGCCGCTGCCCGCGCCAGCGAGCGCCTCGCCA  
CCGCCGCCCCAGGGGAGAAGCCGCCGGCACCACTACAGTTCCACCTCCTGCGGCGGAATCGGCAGGGCGACGTGC  
GCGGCACGTGCGGGGTCTGTGGACGACGAGCCCCGGCCGACTGGGAAAGCGGAGACCGAAGACGAGGACGAAGGGA  
CTGAGGGCGAGGACGAAGGGGCTCAGTGGTCGCCGAGGACCCGGCACTGCAAGGCGTAGGACAGCCCCACAGGAA  
CTGGAAGCATAAGAAAGAAGCGATTTGTGTCCAGTCACCGCTATGTGGAACCATGCTTGTGGCAGACCAGTCTGA  
TGGCAGAATTCCACGGCAGTGGTCTAAAGCATTACCTTCTACGTTGTTTTCGGTGGCAGCCAGATTGTACAAAC  
ACCCAGCATTTCGTAATTCAGTTAGCCTGGTGGTGGTGAAGATCTTGGTCATCCACGATGAACAGAAGGGGCCGG  
AAGTGACCTCCAATGCTGCCCTCACTCTGCGGAACCTTTGCAACTGGCAGAAGCAGCACAACCCACCCAGTGACC  
GGGATGCAGAGCACTATGACACAGCAATTCTTTTACCAGACAGGACTTGTGTGGGTCCCAGACATGTGATACTC  
TTGGGATGGCTGATGTTGGAAGTGTGTGTGATCCGAGCAGAAGCTGCTCCGTCATAGAAGATGATGGTTTACAAG  
CTGCCTTACCACAGCCCATGAATTAGGCCACGTGTTTAACATGCCACATGATGATGCAAAGCAGTGTGCCAGCC  
TTAATGGTGTGAACCAGGATTCCACATGATGGCGTCAATGCTTTCCAACCTGGACCACAGCCAGCCTTGGTCTC  
CTTGCAGTGCCTACATGATTACATCATTTTCTGGATAATGGTCAATGGGGAATGTTTGATGGACAAGCCTCAGAATC  
CCATACAGCTCCCAGGCGATCTCCCTGGCACCTCGTACGATGCCAACCGGCAGTGCCAGTTTACATTTGGGGAGG  
ACTCCAAACACTGCCCCGATGCAGCCAGCACATGTAGCACCTTGTGGTGTACCGGCACCTCTGGTGGGGTGTGG  
TGTGTCAAACCAAACACTTCCCGTGGGCGGATGGCACCAGCTGTGGAGAAGGGAAATGGTGTATCAACGGCAAGT  
GTGTGAACAAAACCGACAGAAAGCATTTTGTATACGCCCTTTTCATGGAAGCTGGGGAATGTGGGGGCCTTGGGGAG  
ACTGTTTCGAGAACGTGCGGTGGAGGAGTCCAGTACACGATGAGGGAATGTGACAACCCAGTCCCAAAGAATGGAG  
GGAAGTACTGTGAAGGCAAACGAGTGCCTACAGATCCTGTAACCTTGAGGACTGTCCAGACAATAATGGAAAAA  
CCTTTAGAGAGGAACAATGTGAAGCACACAACGAGTTTCAAAGCTTCCCTTTGGGAGTGGGCCTGCGGTGGAAT  
GGATTCCCAAGTACGCTGGCGTCTACCAAAGGACAGGTGCAAGCTCATCTGCCAAGCCAAAGGCATTGGCTACT  
TCTTCGTTTTGCAGCCCAAGGTTGTAGATGGTACTCCATGTAGCCAGATTCCACCTCTGTCTGTGTGCAAGGAC  
AGTGTGTAAGCTGGTTGTGATCGCATCATAGACTCCAAAAAGAAGTTTGATAAATGTGGTGTGTGCGGGGGAA  
ATGGATCTACTTGTAAAAAATATCAGGATCAGTTACTAGTGCAAAACCTGGATATCATGATATCATCACAATTC  
CAACTGGAGCCACCAACATCGAAGTGAAACAGCGGAACCAGAGGGGATCCAGGAACAATGGCAGCTTTCTTGCCA  
TCAAAGCTGCTGATGGCACATATATTCTTAATGGTGACTACATTTGTCCACCTTAGAGCAAGACATTATGTACA  
AAGGTGTTGTCTTGAGGTACAGCGGCTCCTCTGCGGCATTGGAAAGAATTCGCAGCTTTAGCCCTCTCAAAGAGC  
CCTTGACCATCCAGGTTCTTACTGTGGGCAATGCCCTTCGACCTAAATTAATACACCTACTTCGTAAAGAAGA  
AGAAGGAATCTTTCAATGCTATCCCCACTTTTTTCAGCATGGGTCAATGAAGAGTGGGGCGAATGTTCTAAGTCAT  
GTGAATTGGGTGGCAGAGAAGACTGGTAGAATGCCGAGACATTAATGGACAGCCTGCTTCCGAGTGTGCAAAGG  
AAGTGAAAGCCAGCCAGCACCAAGCTTGTGCAGACCATCCCTGCCCCAGTGGCAGCTGGGGGAGTGGTCATCAT  
GTTCTAAGACCTGTGGGAAGGGTTACAAAAAAGAAGCTTGAAGTGTCTGTCCCATGATGGAGGGGTGTTATCTC  
ATGAGAGCTGTGATCCTTTAAAGAAACCTAAACATTTTCATAGACTTTTGCACAATGGCAGAATGCAGT**TAA**GTGG  
TTTAAGTGGTGTAGCTTTGAGGGCAAGGCAAAGTGAGGAAGGGCTGGTGCAGGGAAAGCAAGAAGGCTGGAGGG  
ATCCAGCGTATCTTGCCAGTAACCAAGTGAAGTGTATCAGTAAGTGGGATTATGGGGGTAGATAGAAAAGGAGTT  
GAATCATCAGAGTAACTGCCAGTTGCAAATTTGATAGGATAGTTAGTGAGGATTATTAACCTCTGAGCAGTGAT  
ATAGCATAATAAAGCCCCGGGCATTATTATTATTATTTCTTTTGTACATCTATTACAAGTTTAGAAAAAACAAA  
GCAATTGTCAAAAAAAGTTAGAATAATTACAACCCCTGTTTCCTGGTACTTATCAAATAACTTAGTATCATGGGG  
GTTGGGAAATGAAAAGTAGGAGAAAAGTGAGATTTTACTAAGACCTGTTTTACTTTACCTTCACTAACAATGGGG

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**FIGURE 1154B**

GGAGAAAGGAGTACAAATAGGATCTTTGACCAGCACTGTTTATGGCTGCTATGGTTTCAGAGAATGTTTATACAT  
TATTTCTACCGAGAATTAAACTTCAGATTGTTCAACATGAGAGAAAGGCTCAGCAACGTGAAATAACGCAAATG  
GCTTCCTCTTTCTTTTTTTGGACCATCTCAGTCTTTATTTGTGTAATTCATTTTGAGGAAAAACAACCTCCATGT  
ATTTATTCAAGTGCATTAAAGTCTACAATGGAAAAAAGCAGTGAAGCATTAGATGCTGGTAAAAGCTAGAGGAG  
ACACAATGAGCTTAGTACCTCCAACCTCTTTCTTTCTTACCATGTAACCCTGCTTTGGGAATATGGATGTAAAG  
AAGTAACTTGTGTCTCATGAAAATCAGTACAATCACACAAGGAGGATGAAACGCCGGAACAAAAATGAGGTGTGT  
AGAACAGGGTCCACAGGTTTGGGGACATTGAGATCACTTGTCTTGTGGTGGGGAGGCTGCTGAGGGGTAGCAGG  
TCCATCTCCAGCAGCTGGTCCAACAGTCGTATCCTGGTGAATGTCTGTTTCAGCTCTTCTGTGAGAATATGATTTT  
TTCCATATGTATATAGTAAATATGTTACTATAAATTACATGTACTTTATAAGTATTGGTTTGGGTGTTCTTCC  
AAGAAGGACTATAGTTAGTAATAAATGCCTATAATAACATATTTATTTTATACATTTATTTCTAATGAAAAAA  
CTTTTAAATTATATCGCTTTTGTGGAAGTGCATATAAAATAGAGTATTTATACAATATATGTTACTAGAAATAAA  
AGAACACTTTTGGAAAAA

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**FIGURE 1155**

MGNAERAPGSRSGPVPTLLLLAAALLAVSDALGRPSEDEELVPELERAPGHGTTRLRLHAFDQQLDLELRPD  
SSFLAPGFTLQNVGRKSGSETPLPETDLAHCIFYSGTVNGDPSSAAALSLCEGVRGAFYLLGEAYFIQPLPAASER  
LATAAPGEKPPAPLQFHLLRRNRQGDVGGTCGVVDDEPRPTGKAETEDEGTEGEDEGAQWSPQDPALQGVGQP  
TGTGSIRKKRFVSSHRYVETMLVADQSMAEFHGSLKHYLLTLFSVAARLYKHPSIRNSVSLVVKILVIHDEQK  
GPEVTSNAALTLRNFCNWQKQHNPPSDRDAEHYDTAILFTRQDLCGSQTCDTLGMADVGTVCDP SRSCSVIEDDG  
LQAAFTTAHELGHVFNMPHDDAKQCASLNGVNQDSHMMASMLSNLDHSQPWSPCSAYMITSF LDNNGHGECLMDKP  
QNP IQLPGDLPGT SYDANRQCQFTFGEDSKHCPDAASTCSTLWCTGTSGGVLVCQTKHFPWADGTSCGEGKWCIN  
GKCVNKTD RKHFDTPFHGSGMWGPWGDCSRTC GGGVQYTMRECDNPVPKNGGKYCEGKRVRYRSCNLED CPDNN  
GKTFREEQCEAHNEFSKASFGSGPAVEWIPKYAGVSPKDRCKLICQAKGIGYFFVLQPKVVDGTPCSPDSTSV CV  
QGQCVKAGCDRIIDSKKKFDKCGVCGNGSTCKKISGSVTSAPPGYHDIITIPTGATNIEVKQRNQRGSRNNGSF  
LAIKAADGTIILNGDYTLSTLEQDIMYKGVVLRYSGSSAALERIRSF SPLKEPLTIQVLTVGNALRPKIKYTYFV  
KKKKESFNAPIFTSAWVIEEWGECSKSELGWQRRLVECRDINGQPASECAKEVKPASTRPCADHPCPQWQLGEW  
SSCSKTCGKGYYKRSCLKLSHDGGVLSHESCDPLKKPKHFIDFCTMAECS

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**FIGURE 1156**

GGCGGGCAGAAGTTGGAAACATGCGGCTGTCGGTCGCTGCAGCGATCTCCCATGGCCGCGTATTTGCCGTATGG  
GCCTCGGTCCCGAGTCCCGCATCCATCTGTTGCGGAAGTTGCTCACAGGGCTGGTGCGGCACGAACGCATCGAGG  
CACCATGGGCGCGTGTGGACGAAATGAGGGGCTACGCGGAGAAGCTCATCGACTATGGGAAGCTGGGAGACACTA  
ACGAACGAGCCATGCGCATGGCTGACTTCTGGCTCACAGAGAAGGATTTGATCCCAAAGCTGTTTCAAGTACTGG  
CCCCTCGGTACAAAGATCAAAC TGGGGGCTACACAAGAATGCTGCAGATCCCAAATCGGAGTTTGGATCGGGCCA  
AGATGGCAGTGATCGAGTATAAAGGGAATTGCCTCCCACCCCTGCCTCTGCCTCGCAGAGACAGCCACCTTACAC  
TCCTAAACCAGCTGCTGCAGGGTTTGCGGCAGGACCTCAGGCAAAGCCAGGAAGCAAGCAACCACAGCTCCCACA  
CAGCTCAAACACCAGGGATTTAACTGGATCTGAAGAGTCTGCAGCCCTTAATCAGTACCCATGATCACAGGCCTT  
TGGAGCACTTTTACTCTCTGAGAAGAACTGGAGCTAGAGATGTAAATGGACAGTCTTGATGGGGTTGAGAACCT  
TCTGGGGAGCCAGATGACCCCTCTTTGCACAATAGATAAAAGTCTTTATATGAATATATATAAATTTATTTATT  
TTTTCTTCTGTTGGGATTTCTGGAGAATGAGAATTATCCAAATGCTCAGTCTACCTGAGATAGTAAATTCATGG  
CTTATGCTTCTGGTCCTTAAATTTGGGTTATTTTGGTTAGTG

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**FIGURE 1157**

MRLSVAAAISHGRVFRRMGLGPESRIHLLRNLLTGLVRHERIEAPWARVDEMRYAEKLIDYGKLGDTNERAMRM  
ADFWLTEKDLIPKLFQVLAPRYKDQTGGYTRMLQIPNRSLDRAKMAVIEYKGNCLPPLPLPRRDSHLTLLNQLLQ  
GLRQDLRQSQEASNHSSHTAQTPGI

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**FIGURE 1158**

GGGGGAAACGGAAGTGAGCGGCGGGGTCGACTGACGGTAACGGGGCAGAGAGGCTGTTTCGCAGAGCTGCGGAAG  
**ATGA**ATGCCAGAGGACTTGATCTGAGCTAAAGGACAGTATTCCAGTTACTGAACTTTCAGCAAGTGGACCTTTT  
GAAAGTCATGATCTTCTTCGGAAAGGTTTTTCTTGTGTGAAAAATGAACTTTTGCCTAGTCATCCCCTTGAATTA  
TCAGAAAAAATTTCCAGCTCAACCAAGATAAAATGAATTTTCCACACTGAGAAACATTCAGGGTCTATTTGCT  
CCGCTAAAATTACAGATGGAATTCAAGGCAGTGCAGCAGGTTTCCAGCTCTTCCATTTCTTTCAAGCTCAAATCTT  
TCACTGGATGTTTTGAGGGGTAATGATGAGACTATTGGATTTGAGGATATTCTTAATGATCCATCACAAGCGAA  
GTCATGGGAGAGCCCACTTGATGGTGAATATAAACTTGGTTTACTG**TAAT**AGTGTGCTGTTTCATGGAAACCGA  
GGGCTGCATCTTGTTTATAGTCATCTTTGTACTGTAATTTGATGTACACAACATTAAAAGTACTGACACCTGAGA  
ATTTCTGCTCAAGTAGTATCAGTGATCATTTAAATTTGGAGGGGCTTTGGTTTACAGCCATGTGACAATTTAA  
AGCACTAAAGGGAGATCATGTTAAAGCTCTTAATTTATATTTAAACAGTAGCCTTTGTCTTTAAAAAAGTTGTTG  
CTCATGAATATTATAAAATGATCTACAGGTTTCAATTCAACCTGTTTCTAGGTTTTTTTGTAATTTAGTTTTGA  
TTAAGCATTATAAGCATTGAGTCTATAAACTTTATAGTAGCATCTTTCAGAATAAACATTTTAAATTGATTTCA  
GTGGCAACTCTCAAATTGATTACAATATGAGATATATCAGTGTCGTCCATTAACTCATAAGAATAATATTTAC  
TGTGTCAGTGCTATTTTAGGATTATAGTTATTGTTTGATTATTTTACAGGTTGAAAAGTAGAAGTTCCAAGGTTTTG  
ATTTTGGTCTGGTCTTTAAGTGAAAAATTAAAGCAACCAGTAGATGTAGGTTAACTTTTACTTCATAGACTTAA  
TATGTGATTAATATATTGCCAAGCAACACTGTAAAGAAAAGTAAACTCATTTTTTCTTGTTCTTAATTTATAT  
ATTACAAGATACTGTAAGGTATTCTTTATGAAGTTGATATATAAAAAATTACATTTTGTAGAACATTAGTGAATGG  
ATCATCTTTTACAATTAAAAGTATATTTTGATTATCAGTTTCTTAGCAAAAAAAAAAAAAAAAAAAAAAAAAAAAA  
AA

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**FIGURE 1159**

MNARGLGSELKDSIPVTELSASGPFESHDLRLKGFSCVKNELLPSHPLELSEKNFQLNQDKMNFSTLRNIQGLFA  
PLKLQMEFKAVQQVQRLPFLSSSNLSLDVLRGNDETIGFEDIINDPSQSEVMGEPHLMVEYKLGLL



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**FIGURE 1160A**

TGAGGCGCGGGAGGCCCGCGCCCCGCGGCTCGCTGTGCGTGGGAGGGCGCGAGCGAACGCGGGCGAGGAGCGGCC  
GAGCCGCTGAAGAGGAGCTGGGCGCCGCGCCCGCCGCGCTCGGCCCGCGGATCGCCTCCGCCCGGTCTTCGC  
CGGCCCGGCCCTGGCGAGATGCCGTGTGGGAGGATTGGCTCAGCCACCCGCTGGGAATCGTGCAGGGATTCT  
TCGCCAAAAATGGAGTTAATCCTGACTGGGAGAAGAAAGTAATTGAGTATTTTAAGGAAAAGCTGAAGGAAAATA  
ATGCTCCTAAGTGGGTACCATCACTGAACGAAGTTCCCTTCATTATTTGAAACCTAATAGTTTTGTGAAATTC  
GTTGCATGATTCAAGATATGTTTGACCCTGAGTTTTACATGGGAGTTTATGAAACGGTTAACC AAAACACAAAAG  
CACATGTTCTTCATTTTGAAAAATATAGAGATGTAGCAGAGTGTGGGCCTCAACAAGAACTTGATTTAACTCTC  
CACGAAATACCACTTTTGAAAGACAGACTTTCTATTGTGTCCGGTGCCCTGGGGAATCTACGTGGGTAAAAGAAG  
CCTATGTTAATGCAAACCAAGCTCGAGTCAGTCCCTCAACATCCTACACTCCTAGTCGCCACAAGAGGAGTTATG  
AAGATGATGACGATATGGACCTACAGCCCAATAAGCAGAAAAGACCAACATGCAGGTGCCAGACAAGCAGGGAGTG  
TTGGTGGTCTTCAATGGTGTGGAGAGCCAAAACGTTTAGAAACTGAAGCTTCTACTGGGCAACAGCTGAACTCTC  
TGAACCTTGTCTTCTCCTTTTGATTTGAATTTTCCATTGCCAGGAGAGAAGGGCCCTGCATGCCTTGTGAAGGTTT  
ATGAAGATTGGGATTGTTTTCAAAGTAAATGACATTCTTGAGCTATATGGCATACTGTCTGTGGATCCTGTGCTGA  
GTATACTGAATAATGATGAAAGGGATGCCTCTGCACTGCTGGATCCGATGGAGTGCACAGACACAGCAGAGGAGC  
AGAGAGTACACAGTCCCTCCTGCTTCATTAGTGCCGAGAATTCATGTGATCTTAGCCCAAGATTGCAACACATCA  
ACCCATTATTGCCTGCCTGCCTTAACAAAGAGGAGAGCAAAACCTGTAAGTTTGTTCAGTTTCATGTCCGAAT  
TGTCTCCAGTCAGAGCAGAATCTTGGGTTCTTACTCATGCCCTTCTGGGGGATAGTTTGGCTGCTGAATACC  
TTATATTACATCTCATCTCCACAGTATATACAAGAAGAGATGTCCTTCCACTAGGAAAATTTACAGTTAACTTGA  
GTGGTTGCCACGGAATAGTACCTTCACAGAACACTTGTATCGAATTATTCAACATCTTGTTCAGCATCTTTTC  
GTCTGCAGATGACTATAGAGAACATGAACCATTTGAAATTCATTCCCCACAAAGACTACACAGCCAATCGCTTG  
TCAGTGGGCTCCTCCAGCTGCCAGCAATACTTCCCTTGTAAATCGATGAGACTCTCCTGGAACAGGGGCAGCTGG  
ATACCCCAGGTGTTTATAATGTGACAGCCCTGAGCAACCTCATAACGTGGCAGAAGGTGGATTATGACTTCAGCT  
ACCATCAGATGGAATTCCCCTGCAATATTAACGTTTTTATTACTTCCGAGGGGAGGTCACTCCTCCCGGCAGACT  
GCCAGATTCACTTACAGCCCCAGCTAATTCCACCAAACATGGAGGAGTACATGAACAGCCTTCTCTCAGCGGTGC  
TGCCTTCCGTGCTGAACAAATTCCGCATTTATCTAACTCTTTTGAGATTCTTGGAATATAGCATATCTGATGAAA  
TAACCAAGGCAGTTGAAGATGACTTTGTGGAATGCGGAAGAAGACCCTCAGAGCATCACTGCTGATGATCTTC  
ACCAGCTGCTCGTGGTGGCTCGGTGTCTGTCTCTCAGTGCTGGTCAGACAACGCTGTCAAGAGAACGATGGCTGA  
GAGCAAAGCAGCTAGAGTCTTTAAGAAGAACGAGGCTTCAGCAGCAAAAATGTGTGAATGGAATGAACTTTAAA  
GATGTAATACCTATGAAGAGTAATGGGCAAACCTGTAGCCACATAATTGTAATTCAGATATTCATTTATACCAC  
ATTGTTTTATAGGTAATTTCTATCACAACCAGTGACATTTCTGAAATCAAGCCTGGTAACACCTGATGTTTAT  
ATGATATTCAGTAAGGACTTTTACCTTACTGATTTTCATGGAGCTTTTGAAGTTTGTTTTATAATAATTATATAAA  
TTAGTAATGATGTAAAAAAGTATTTGATATTAAGTTTAAATATTGATAATGTTGCTGATTGTACCATTTCTCT  
AGCTTCAGCTGAGTCATAGGCCAGACTGTTGAAATGCTGAAATGAAGAAGGTTGTTGCAGTTTCAAAGTCAGAGG  
AATCGTGCTTCGGATTTCTTATGTTTTCTAGTTCTCTGTTTTTCCAGTTCACAGTGGGTTGGGGTGCATTCAGTA  
GTCCATCTTTGGGGAACGGAGGCGTACTTGCCATTGATTCACATGACTACATGAAATTCTGTACTGTCATTTCCC  
AGATGTTTGGCCACAGAACTTTTCCCACTTAACATTTGTTAACAGCCTGCAAACTAACTTGTACATGGCAG  
TGGTTCCCAGACTTTTGTATTTTATGGACCGGTAGTAATATTTCCAAAAATCTGGGGTACTATAAGGTTGCCAAT  
TTACCTTGCCAAGTAATCCGAATAAATCACTGTATTATCACCATTTTTTTCTATAAAAGGAAAGGACAATCTATCT  
CTGAATAAGAGGAGTCCTTTAAACGGAATGAATGTGGCTTTTGGGGGCAAAAGAAACCAAGACACTACATTGTCT  
TTATTTTCTCCTATCCCAGTGCAATTTGAGAACCATGCATAAGGGAATGCTGTGCTACAAAGCTGTGCCCAATAT  
GAAAACAAAATAGGAACTTAAAAAGCAATACCCCTTTAGAAAGTTTTTATTTTCTTAAATGTCATTGAGTTGC  
TTTGATTCTATTGGATTTTTTGGCATTTTTTTATGGGATCATCAGTTGGTTCCAAGTATGTTAGATCAGCTAACATC  
TGCTACTCCAGTAACAGCCTCGTACAACCTGCAGGTAGGTTTTCTCCAGACCAATTAGTTTTAATAGAGCAAACTA  
ACAACAGACTGTAGTAGCATGGTTATGGCAACCAGAATCTTCAGAAAGGTTAGGACATTACTTTTTAAGCTGTCA  
GTGGTATCAAATAACTTACCTAGTTGGAGGCAGATAAAGGATCCCTTACGTTTTTCTTATAAGGCCTAAATTGA  
AATTGTTAACCAAGGAAACAGGGTCAGCCTTGAAAAATCAAGGAATTCATTGTACCTAATAACTGAAGTAAAAAT  
AACTAGTTGTTCAACTTTTCTAACTCAAATCTATTTTTATAAACAAATGTAAATAATGTTTATATTAGAGTTG  
AACTGGTTTTCATTTTTATAACTGGTAGACTAGACCTTCCTTAACTTTTAGAAATAAAATGAAGGCTTCACTGG

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**FIGURE 1160B**

ATTTGTGAGGATAAAAATACATTTTCTTTAATTGTCCTAGAGCAAAGTACATTAGTCACCATGTGTTTTTTGTGCC  
AATGTAACCTTGTAAATTACCAAAGAAAAATACATACATTGCTTGGTCTTGCAGAAAAGTTCCTTGAAAGAACCT  
TTCCAATAAATAAAACGTCCCAAATTAGCAGTACCTTGGGCTGTTTTTCATGAGTAAGAAGATTCACCATCCCAT  
GTGATCTGTGTGAAAAAGACCATGTCCTCTTGGTGGAAGACATGAGAGAGCTGAACTGAAGTGGAGGAGGTGGT  
GCAAGAGGGACCTTCCTGCTCAAGGCCCGCCAGGCAGCGGAATAGAGTGCAGTGCTTGGCTGCAGAAACCCCTT  
GTCCCTCACCTATATATACACGGACAGTCAAGTTTGTTGCTCTAACGTAAGGCACAGCGTTAATCCTGTATGGCC  
AGGAAACTGAGTAGACTCCTGTGTAACCCTGTTTGGAACCTTGCCTTCTTAAATGATTTTC

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**FIGURE 1161**

MPCGEDWLSHPLGIVQGFFAQNGVNPDWEEKVIEYFKEKLENNAPKWVPSLNEVPLHYLKPNSFVKFRMIQDM  
FDPEFYMGVYETVNQNTKAHVLHFGKYRDVAECGPQQELDLNSPRNTTLERQTFYCVVPGESTWVKEAYVNAHQ  
ARVSPSTSYTPSRHKRSYEDDDDDMDLQPNKQKDQHAGARQAGSVGGLQWCGEPKRLETEASTGQQLNSLNLSSPF  
DLNFPLPGEKGPACLVKVYEDWDCFKVNDILELYGILSVDPVLSILNNDERDASALLDPMECTDTAEEQRVHSP  
ASLVPRIHVILAQKLQHINPLLPACLNKEESKTCKFVSSFMSELSPVRAELLGFLTHALLGDSLAAEYLILHLIS  
TVYTRRDVLPGLGFTVNLSGCPRNSTFTEHLYRIIQHLVPASFRLQMTIENMNLKFI PHKDYTANRLVSGLLQL  
PSNTSLVIDETLLEQQQLDTPGVHNVLTALSNLITWQKVYDYSYHQMEFPCNINVFITSEGRSLLPADCQIHLQP  
QLIPPNMEEYMNSLLSAVLPSVLNKFRIYLTLLRFLEYSISDEITKAVEDDFVEMRKNDPQSITADDLHQLLVVA  
RCLSLSAGQTTLRERWLRAKQLESRLRRLQQQKCVNGNEL

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**FIGURE 1162**

TGTTCTTGAGCCCAGCTTCTTCTCGTCTCCACCCCAGCTTCCCGGCATTGGAAGAAGGGACCGTCCTCTTCCTT  
GTCTTGGCCACCCAAATCCTGGTATCGAAAGGGTTGAACGGACCGGAAGTGTGCAGCAGCGACGGGTCCCCAGCT  
AATCGACGCCGGAAGTAGCAATTACTAGACAAGCATTCCGCCGCCGGCTTCGCTATGGCGGCAATTCCCCAGAT  
TCCTGGCAGCCACCCAACGTTTACTTGGAGACCAGCATGGGAATCATTGTGCTGGAGCTGTACTGGAAGCATGCT  
CCAAAGACCTGTAAGAACTTTGCTGAGTTGGCTCGTCGAGGTTACTACAATGGCACAAAATTCACAGAATTATC  
AAAGACTTCATGATCCAAGGAGGTGACCCAACAGGGACAGGTGAGGTGGTGCATCTATCTATGGCAAACAGTTT  
GAAGATGAACTTCATCCAGACTTGAAATTCACGGGGGCTGGAATTCTCGCAATGGCCAATGCGGGGCCAGATACC  
AATGGCAGCCAGTTCTTTGTGACCCTCGCCCCCACCAGTGCGTTGACGGCAAACACACCATTTTGGCCGAGTG  
TGTCAGGGCATAGGAATGGTGAATCGCGTGGGAATGGTAGAAAACAACTCCCAGGACCGCCCTGTGGACGACGTG  
AAGATCATTAAGGCATACCCCTTCTGGGTAGACTTGCTACCCTCTTGAGCAGCTCTTCTGAGATGGCCCCAGTGAA  
CCAGCTTCTAGATGACATAGAATGACATGTAATGCTAAATTTTCAATTTGGCTTTGCAAGTCATGAAGCTTAGGAG  
GCCTGGCATCTTGGGTGAGTTAGAGATGGAAGTACATTTTAATAGGATGCTTCTTTTCTTCCCCAGTGCCTA  
GGTTGCCAGAGCATTTGCACAAATGCCCTGTTTATCAATAGGTGACTACTTACTACACATGAACCATAATGCTG  
CTTCTTGTGCATGTCTGCTCTGATATACGTGCAACAATGTAGCAGCCACTGTCATTTCTCAGTGGTTTTGCCTAA  
CCAAACTTCTTCCTAAGGAGATTTATATTCTGGCCTACACAGCAGTCCTTGATGGCTGACAGCCACAGAATTCCA  
AACCAAGTAGTGTCTGTGTCAGCCCTCTTAACTCTGTGCACGCCCTATTTTCACTCTTTTACATTTGTTCTTCTAGGG  
AATGTATGCATCTCTATATATATTTTCCCTCTCAAAACCAGAACATCAACAGTGCTGTTTCTGACACTTCAGACA  
TCCCACGCAAAGCCACATTGAATTTTGGCAAATGAAAAACACATCCAACAATCAAGTTTCTAAGAAGGTGTCAA  
GTGGGGAATAATAATAATGTATAATAATCAAGAAATTAGTTTATTAAAAGGAAGCAGAAGCATTGACCATTTTTT  
CCCAGAGAAGAGGAGAAATCTGTAGTGAGCAAAGGACAGACCATGAATCCTCCTTGAGAAGTAGTACTCTCAGAA  
AGGAGAAGCGCCACTCAAGTTCTTTTAACCCAAGACTTTAGAGAAATTAGGTCCAAGATTTTTATATGTTTCAATT  
GTTTATGTATAAAAATAACTTTCTGGATTTTGTGGGGAGGAGCAGGAGAGGAAGGAAGTTAATACCTATGTAATA  
CATAGAACTTCCACAATAAAATGCCATTGATGGTTGAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1163**

MAAIPDSWQPPNVYLETSMGIIVLELYWKHAPKTCKNFAELARRGYNGTKFHRI IKDFMIQGGDPTGTGRGGA  
SIYGKQFEDELHPDLKFTGAGILAMANAGPDTNGSQFFVTLAPTQWLDGKHTIFGRVCQGIGMVNRVGMVETNSQ  
DRPVDDVKIIKAYPSG

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**FIGURE 1164**

AATAACCTGGAGCCGGCGGCGTAGGTTGGCTCTTTAGGGCTTCACCCCGAAGCTCCACCTTCGCTCCCGTCTTTC  
TGGAACACCCGCTTTGATCTCGGCGGTGCGGGACAGGTACCTCCCGGCTGCTGCGGGTGCCCTGGATCCAGTCGG  
CTGCACCAGGCGAGCGAGACCCCTTCCCTGGTGGAGGCTCAGAGTTCCGGCAGGGTGATCCGGCCTGTGTGTGGC  
GCGAGGCAGGGAAGCCGGTACCCGGGTCTGGCCCCAGCGCTGACGTTTTCTCTCCCTTTCTTCTCTCTTCGCG  
GTTGCGGCGTCGCAGACGCTAGTGTGAGCCCCC**ATGC**AGATACGACCCCGAGCGGCCCCAAGGGGCGGGCGCT  
GTGCAATTCATGATGACCAATAAACTGGACACGGCAATGTGGCTTTCTCGCTTGTTACAGTTTACTGCTCTGCT  
CTGTTTGTCTGCCTCTTCTTGGGTTCATGAAGCAGCAAGCTTTTACCAACGTGCTTTGCTGGCAAATGCTCTT  
ACCAGTGCTCTGAGGCTGCATCAAAGATTACCACACTTCCAGTTAAGCAGAGCATTCCCTGGCCCAGGCTTTGTTA  
GAGGACAGCTGCCACTACCTGTTGTATTCACTCATCTTTGTAAATTCCTATCCAGTTACAATGAGTATCTTCCCA  
GTCTTGTTATTCTCTTTGCTTCATGCTGCCACATATACGAAAAAGGTCCTTGACGCAAGGGGCTCAAATAGTTTA  
CCTCTGCTGAGATCTGTCTTGACAAATTAAGTGCTAATCAACAAAATATTCTGAAATTCATTGCTTGCAATGAA  
ATATTCCCTGATGCCCTGCGACAGTTTTTATGCTTTTTAGTGGTCAAGGAAGTTTGCTCCAACCTTTTATATACTAT  
AGATTTCTTACCCCTTCGATATTTCGTCTCGAAGAAACCCATATTGTCCGGACCTTATTTAATGAAGTGAAGATTGTT  
GTTGAACACATAATAATGAAACCTGCTTGCCCACTGTTTGTGAGAAGACTTTGTCTCCAGAGCATTGCCTTTATA  
AGCAGATTGGCACCAACAGTTCC**ATAG**TTTAACATCTAGTTAAGCTACAAATATAGTATAAGCATTATTAGCAGC  
TGGTACTTCTGCTAGGGGTTGTAAATTCAGGTGTTACACTGACCTCAATCCAATTTACATAATTTACATAAATG  
CATCTCGGTGGAAAAATAATCATTTTTCTTGGCATGTTAAATCAAGCTTAAAAAGTTTTGAGAAAATTTTACTGTG  
CTGTGTTGCTAATGGTTAAAGAAGTCTGTATCTAGTGATAAATATACCAGTTTTTTTTTAAAAGATGCTGTTGTGC  
CTATATCATGAAGTACATTAATTTCTCATGTAAAAAAATAGCTCTAAAATTTGTTTCAACCTAATTGGTAACCT  
GAGTTTATATCTGGCATGAATTCATTATGGTGATACACATATGTGAATTCAGTACATTTTGAGACAGTATTCTAC  
CATTAGTAATTTTGGTTAATGATTTTAAACACTTCTCAGTGTATTTAATTTCAAATTGTTTTTTAATTGGTTTT  
ATGCTGCTTTGTTAGGACAGATGTGTTTTGAATGTACCATTATAAGAAGAATTCTATGTATCTTAAACTATGATC  
TTCTAAAAATTTATTTCCGTAAGTACTTCTGTGGCCTTGAGTATTTTTTAAAAGGCTCAACTGTAAGCCTCTTAG  
CCAGTTGGATAAATATTTGGGGTCACCTAGCCATTGAAAGCAGAAAGCAGTAGTGACACAGCTTTCCCTTCAAAG  
AGCCATTGAGAAACATTTCTCAAACAGGAAATCCTTCTTTTACTAATGTGGACATATAGATTATTCGTATTATAG  
TTTGTAGAACTACCTAGTTCAGAATCTTGACTGCCAGTTTTCTTGGTTTCTTAGGCTTGAATTTTCATAGACAAT  
TGCAACAGTTTAGATGCCTTTTGAAAGGAATGTAATGAAGATTGAGCATCTGACTATATGTGTGTCTATCCTGAA  
ATAATAATGGAGAGTATACTGTAGATTACATGTTTACCCATCAAATCTGACTTAAAAGGTTAAATGGAAGGTTTT  
ATAGGTAAGGTAATTGATTGGGAATGGGGTAGGGGGAGGAGTTGTGGGGGAATAATGTGCATTTTCACTCTCAACG  
CATAGATAAATTTAGGGGAATTGGATGCATTATTCAACTTTGATTGGGTTGTAAAATGTGTTAAATCCTGTTCA  
TTGAACTCCCATCAACTCTTATGAAATTCATGCTGATCTTCATTACCGTTGCATGATTGGAAATGTTTAAACAT  
TGTACAGTTTTAGTATAGAGAAATGTAATGGTTTTTGTGACCAGTTTCTGTCTGCATGTAATTTGGATTTCTCAA  
ATACATTCATTAGTAATTTATCAGTAACATTAGTTTTATTTTTGTTTCATCTCCTTATCTATAAAAAGGGGATATT  
CTTAGGATAAATACATGAAAAATTATACCTGATAGCTTAACTATAATCAGCTATTTTTGTATTTTTGTAATATT  
GTCCACTAAGCTGGAGAAGCAGCCTCATAAGTTGATTTTGTGTATGTGGCTAGTCTTATTGTCACTATGTAAGT  
AATCCAATGGTTTTAGAACTAACTTTCTAGAGCAATAAAATGACTATAATGTTAAGT

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**FIGURE 1165**

MADTTSPGPGAGAVQFMMTNKLDTAMWLSRLFTVYCSALFVLP LLGLHEAASFYQRALLANALTSALRLHQRLP  
HFQLSRAFLAQALLED SCHYLLYSLIFVNSYPVTMSIFPVLLFSL LHAATYTKKVL DARGSNSLP LLRSVLDKLS  
ANQQNILKFIACNEIFL MPATVFMLFSGQGSLLQPF IYYRFLTRYSSRRNPY CRTLFNELRI VVEHIIMKPACP  
LFVRRCLQSI AFISRLAPTVP

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**FIGURE 1166**

GCACGAGCCCCGGGCTGCCGGCGCGGGCGCCGCGGCACGTCCACAGGCTGGGTTCGCGAGGTGGCGATCGCTGAGA  
GGCAGGAGGGCCGAGGCGGGCCTGGGAGGCGGCCGAGGTGGGGCGCCGCTGGGGCCGGCCCGCACGGGCTTCA  
TCTGAGGGCGCACGGCCCCGCGACCGAGCGTGC GGACTGGCCTCCCAAGCGTGGGGCGACAAGCTGCCGGAGCTGC  
**AATG**GGGCGCGGGCTGGGGATTCTTGT TTTGGCCTCCTGGGCGCCGTGTGGCTGCTCAGCTCGGGCCACGGAGAGGA  
GCAGCCCCCGGAGACAGCGGCACAGAGGTGCTTCTGCCAGGTTAGTGGTTACTTGGATGATTGTACCTGTGATGT  
TGAAACCATTGATAGATTTAATAACTACAGGCTTTTCCCAAGACTACAAAACTTCTTGAAAGTGACTACTTTAG  
GTATTACAAGGTAAACCTGAAGAGGCCGTGTCCTTTCTGGAATGACATCAGCCAGTGTGGAAGAAGGGACTGTGC  
TGTCAAACCATGTCAATCTGATGAAGTTCCTGATGGAATTAAATCTGCGAGCTACAAGTATTCTGAAGAAGCCAA  
TAATCTCATTGAAGAATGTGAACAAGCTGAACGACTTGGAGCAGTGGATGAATCTCTGAGTGAGGAAACACAGAA  
GGCTGTTCTTCAGTGGACCAAGCATGATGATTCTTCAGATAACTTCTGTGAAGCTGATGACATTCACTCCCCTGA  
AGCTGAATATGTAGATTTGCTTCTTAATCCTGAGCGCTACACTGGTTACAAGGGACCAGATGCTTGGAAAATATG  
GAATGTCTATCTACGAAGAAAACCTGTTTTAAGCCACAGACAATTAAGAGACCTTTAAATCCTTTGGCTTCTGGTCA  
AGGGACAAGTGAAGAGAACACTTTTTACAGTTGGCTAGAAGGTCTCTGTGTAGAAAAAGAGCATTCTACAGACT  
TATATCTGGCCTACATGCAAGCATTAAATGTGCATTTGAGTGCAAGATATCTTTTACAAGAGACCTGGTTAGAAAA  
GAAATGGGGACACAACATTACAGAATTTCAACAGCGATTTGATGGAATTTTGACTGAAGGAGAAGGTCCAAGAAG  
GCTTAAGAACCTGTATTTTCTCTACTTAATAGAACTAAGGGCTTTATCCAAAGTGTACCATTCTTCGAGCGCCC  
AGATTTTCAACTCTTTACTGGAAATAAAATTCAGGATGAGGAAAACAAAATGTTACTTCTGGAAATACTTCATGA  
AATCAAGTCATTTTCTTTGCATTTTGATGAGAATTCATTTTTTGTCTGGGGATAAAAAAGAAGCACACAACTAAA  
GGAGGACTTTTCGACTGCATTTTAGAAATATTTCAAGAATTATGGATTGTGTTGGTTGTTTTAAATGTCGTCTGTG  
GGGAAAGCTTCAGACTCAGGGTTTGGGCCTGCTCTGAAGATCTTATTTTCTGAGAAATTGATAGCAAATATGCC  
AGAAAGTGGACCTAGTTATGAATTCCATCTAACCAGACAAGAAATAGTATCATTATTCAACGCATTTGGAAGAAT  
TTCTACAAGTGTGAAAGAATTAGAAAACCTTCAGGAACCTGTTACAGAATATTCAT**TAA**AGAAAACAAGCTGATAT  
GTGCCTGTTTCTGGACAAATGGAGGCGAAAGAGTGAATTTTATTCAAAGGCATAATAGCAATGACAGTCTTAAGC  
CAAACATTTTATATAAAGTTGCTTTTGTAAAGGAGAATTATATTGTTTTAAGTAAACACATTTTTAAAAATTGTG  
TTAAGTCTATGTATAATACTACTGTGAGTAAAGTAATACTTTAATAATGTGGTACAAATTTTAAAGTTTAATAT  
TGAATAAAAGGAGGATTATCAAATTCATATATGATAAAAGTGAATGTTCTAAGTCTCTCAAAGTAGCGTTTTATG  
TAATAATATGTAATATAAAATAAACTATGGTAAATGTGACAAGCATTAAATAGGAAAATGCTAAGGAGGCCTCAT  
AAATGACCCATAATTACCAACGTAGAATTTTTTTCAGTACATTTAGGGTTGCTGGATTTAGCAAATAAAAAATAAGA  
TTGCCCAGTTAGATTTGAATTTTACAGATAAACAATTAGTTTTTTAATATTTTACATGGAATATTTGGAAAATACTT  
ATACTAAAAAATTATTTGTTTGAATTCACATTTAACTGGGAGTCTTGATTTTATCTGGCAATCCTAAATACA  
TTGGTATGAAACAAATCACTTTTGAAGTATATTGCTATTTTGAATGGGTGTTTTTGTGTGTAGAAACGTACAA  
TAACAACTCAAAGGCACAGGAGATTTCTAAACATTGTGAAAAGTTGAATAGATTATATATTTATTCTCATAATAC  
TTTCACTAATACTAAATAAAATTTGGGGAACACTTTTTATTTTTATATAATTTCCAATTTACAGAAAAGTTTCAA  
AAATAGTACAAAGAGCTCTCTTACCCAGATTCATAATTGTTTCATACGTGCTTTATCTTTTCATGCTTTCTCTGTA  
CACACACACACACACAAATTTTCTCAATCATTGAAAGTCAGTTATAGGCATCATGCCCCTTAAACCCTAA  
ATACTTCAGTGTGTAATACTGAATAATTACTAAAAATGATTTTCTCAGAAAAAAAACCTCCACAATTCTGGAAC  
TATAATACTGTAAGCCTTAGAATAAATAACTTTCAAGTTCCAATCTAAAGTTCTTTTTGAGTTTTGTTGCCCG  
TTTTATGCTTGATGTGTATAGTAATAGGGTAGGCTATTTATTTTATTAATAATTTTTTTTAGAGACAAGTTTTGC  
TGTGTTGCCCAAGCTGGAACCTGAACGACTGGGCTGAAGTGATCTTCCACCTCAGCCTCCCAAGTAGCTGGGAA  
TACAGGTGTCTGCCACCATAACCCAGTTTCATTTTTGTTTTTATACCCGAAGTTCATTTCTTTGTCTCCCTAAA  
ACTGAACTGTAATTTTGGGAGTTTTTCATTAGTGAAGCTCTTCATTTATAAAGCTATTTGAAGGGGTTTAGGAA  
TTTATATCACATGGTAATTGTAGAGAAAAAGAAGCTATATACCTCAAAATCGTGCCCTCTTTACATATGTCTTAT  
CAGGTATAACATGTTGAAATGTCACATTAGTAGTAAAGTGGGGTTTATTTATATAGTGGTTAAGAAATGTCAGTT  
TACACTGCTGTATACTTCTTCTTCTGTGTCCCTAAGGCCTGGTACAGTGCCAAGCACATACTTGGTATCCAATAA  
ATATTTGTTGGATGAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 1167**

MGRGWGFLFGLLGAVWLLSSGHGEEQPPETAQAQRFCQVSGYLDDCTCDVETIDRFNNYRLFPRLOKLLSDYFR  
YYKVNLRPCPFWNDISQCGRRDCAVKPCQSDEVDPGIKSASYKYSEEANNLIEECEQAERLGAVDESLSEETQK  
AVLQWTKHDDSSDNFCEADDIQSPEAEYVDLLLNPERYTGYKGPDAWKIWNVIYEENCFKPQTIKRPLNPLASQ  
GTSEENTFYSWLEGLCVEKRAFYRLISGLHASINVHLSARYLLQETWLEKKWGHNITEFQQRFDGILTEGEGPRR  
LKNLYFLYLIELRALSKVLPFFERPDFQLFTGNKIQDEENKMILLEILHEIKSFPLHFDENSFFAGDKKEAHKLK  
EDFRLHFRNISRIMDCVGCFCRLWGKLQTQGLGTALKILFSEKLIANMPESGPSYEFHLTRQEIVSLFNAFGRI  
STSVKELENFRNLLQNIH

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**FIGURE 1168A**

CGATAACGATTTGTGTTGTGAGAGGCGCAAGCTGCGATTTCTGCTGAACTTGGAGGCATTTCTACGACTTTTCTC  
TCAGCTGAGGCTTTTCCTCCGACCCTG**ATG**CTCTTCAATTCGGTGCTCCGCCAGCCCCAGCTTGGCGTCTTGAGA  
AATGGATGGTCTTCACAATACCCTCTTCAATCCCTTCTGACTGGTTATCAGTGCAGTGGAATGATGAACACACT  
TCTTATGGAGAAACAGGAGTCCCAGTTCCTCCTTTTGGATGTACCTTCTCTTCTGCTCCCAATATGGAACATGTA  
CTAGCAGTTGCCAATGAAGAAGGCTTTGTTTCGATTGTATAACACAGAATCACAAAGTTTCAGAAAGAAGTGCTTC  
AAAGAATGGATGGCTCACTGGAATGCCGTCTTTGACCTGGCCTGGGTTCTGGTGAACCTTAACTTGTTACAGCA  
GCAGGTGATCAAACAGCCAAATTTTGGGACGTAAAAGCTGGTGAGCTGATTGGAACATGCAAAGGTCATCAATGC  
AGCCTCAAGTCAGTTGCCTTTTCTAAGTTTGAGAAAGCTGTATTCTGTACGGTGGAAGAGATGGCAACATTATG  
GTCTGGGATACCAGGTGCAACAAAAAGATGGGTTTTATAGGCAAGTGAATCAAATCAGTGGAGCTCACAATACC  
TCAGACAAGCAAACCCCTTCAAACCCCAAGAAGAAACAGAAATCAAAGGACTTGCTCCTTCTGTGGATTTCCAG  
CAAAGTGTTACTGTGGTCTCTTTCAAGACGAGAATACCTTAGTCTCAGCAGGAGCTGTGGATGGGATAATCAAA  
GTATGGGATTTACGTAAGAATTATACTGCTTATCGACAAGAACCCATAGCATCCAAGTCTTTCTGTACCCAGGT  
AGCAGCACTCGAAAACCTTGATATTCAAGTCTGATTTTGGATTCCACTGGCTCTACTTTATTTGCTAATTGCACA  
GACGATAACATCTACATGTTTAATATGACTGGGTTGAAGACTTCTCCAGTGGCTATTTTCAATGGACACCAGAAC  
TCTACCTTTTATGTAAAATCCAGCCTTAGTCCAGATGACCAGTTTTTAGTCAGTGGCTCAAGTGATGAAGCTGCC  
TACATATGGAAGGTCTCCACACCCTGGCAACCTCCTACTGTGCTCCTGGGTCACTTCTCAAGAGGTCACGTCTGTG  
TGCTGGTGTCCATCTGACTTCACAAAGATTGCTACCTGTTCTGATGACAATACACTAAAAATCTGGCGCTTGAAT  
AGAGGCTTAGAGGAGAAACCAGGAGGTGATAAACTTTCACGGTGGGTGGGCCTCTCAGAAGAAAAAAGAGTCA  
AGACCTGGCCTAGTAACAGTAACGAGTAGCCAGAGTACTCTGCCAAAGCCCCCAGGGTAAAGTGCAATCCATCC  
AATTCTTCCCCGTCATCCGCAGCTTGTGCCCCAAGCTGTGCTGGAGACCTCCCTCTTCTTCAAATACTCCTACG  
TTCTCTATTAAAACCTCTCCTGCCAAGGCCCGGTCTCCCATCAACAGAAGAGGCTCTGTCTCCTCCGTCTCTCCC  
AAGCCACCTTCATCTTTCAAGATGTCGATTAGAACTGGGTGACCCGAACACCTTCTCATCACCACCCATCACT  
CCACCTGCTTCGGAGACCAAGATCATGTCTCCGAGAAAAAGCCCTTATTCTGTGAGCCAGAAGTCATCCCAAGCA  
GAGGCTTGCTCTGAGTCTAGAAATAGAGTAAAGAGGAGGCTAGACTCAAGCTGTCTGGAGAGTGTGAAACAAAAG  
TGTGTGAAGAGTTGTAACCTGTGTGACTGAGCTTGATGGCCAAGTTGAAAATCTTCATTTGGATCTGTGCTGCCTT  
GCTGGTAACCAGGAAGACCTTAGTAAGGACTCTCTAGGTCTACCAAATCAAGCAAAATTGAAGGAGCTGGTACC  
AGTATCTCAGAGCCTCCGTCTCCTATCAGTCCGTATGCTTCAGAAAGCTGTGGAACGCTACCTCTTCTCTTTGAGA  
CCTTGTTGGAGAAGGCTCTGAAATGGTAGGCAAGAGAATAGTTCCCCAGAGAATAAAAACTGGTTGTTGGCCATG  
GCAGCCAAACGGAAGGCTGAGAATCCATCTCCACGAAGTCCGTATCCAGACACCCAATTCCAGGAGACAGAGC  
GGAAAGACATTGCCAAGCCCCGGTCACCATCACGCCAGCTCCATGAGGAAAATCTGCACATACTCCATAGAAAG  
TCCCAGGAGGACTTCTGTGGTCTGAACACTCAACAGAATT**ATAG**ATTCTAATCTGAGTGAGTTACTGAGCTTTG  
GTCCACTAAAACAAGCTGAGCTTTGGTCCACTAAAACAAGATGAAAAATACAAGAGTGACTCTATAACTCTGGTC  
TTTAAGAAAGCTGCCTTTTCATTTTTAGACAAAATCTTTCAACGCTGAAATGTACCTAATCTGGTTCTACTACC  
ATAATGTATATGCAGCTTCCCAGGATGAATGCTGTGTTAAATTTCATAAAGTAAATTTGTCACTCTAGCATT  
TGAATGAATAGTCTTCATTTTTAAATTATTCATCTTCTCTATAAATGACATCCCAGTTTATGGAGGCAAAAA  
ACAAGTTTCTTGTATCCTGAAACTTTCTATGCTCAGTGGAAGTATCTGCCAGCCACAGCATGAGGCCTGTGAA  
GGCTGACTGAGAAATCCTCTGCTGAAGACCCCTGGTTCTGTTCTGCCCTCCAACATGTATAATTTTATTTGAAATA  
CATAATCTTTTCACTATGCTTTTGTGGGGTTTTTTTTTAAGTATGTGTAAAAATGTGATGCTCAGATAAGTACATT  
TATATCAGTTCAGTGTTAAATGCAGTCTCTTGAGTTAAAGTCATCTTTATTTTAAATGCAGTGATAAATGTCAA  
CTCTTCGGAGAACTAGGAGAACAAACAGAAAGCTGTGTTTGTCTTTTTTCTCTCAAATATATCTCCCGTATG  
AGATTTTCAGGTCCCCATGTTTTACCAAGCAATCTGCTATGTCAGCCAACCCAACATCACTTTCTACAGGAGGTT  
ATGATTTTTGCCATTTACTAGAGGAAGATGTTTTATGAAATCAATTTGGGGTTTGAATTCAGGTGCAGTCATCAG  
TTCTTTAGGGGCTGCAATGTTTTAAAAAATAAGTCATCAGATTTTAAGAAAAAAGTGATGATTTCTTTATTGAT  
ATTTTTGTAACAGAATATAGCTCTTAAGTAAAATCCAGAACAGAAACATAAATCTTGAGTTTCTTTTCATGTA  
CATAAAAAGCAATAGCCTTTTAGTATAGATAGCCCTGAGCCAAAAAGTAATAGAATTTTCTCTAGATATTTAATA  
CAGAGAGTGTATAGACTGACTCTAAGTTAATAATGTGCAAAATATCTTAAACATCCCTCCCTTATTCAACAATT  
ATGTATCAGTGATCTTGAACATTGTTTTATATTTTACCTTTGTAACCTCATGGAAAGAGGCTTTACATACTT  
TCTATGTACTATTTACTTAGAAGGGAGCCCCCTCCAGTCATGAAACTTCATTTGTTTTATCCATATCCCTGAGG

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**FIGURE 1168B**

ACTGTGTAGACTTTATGTCAGTTCTGTGTAGACTTTATGTCAGTTTTTGTCAATTATTTGAAAATCTATTCTGACA  
ACTTTTAAATTCCTTTGATCTTATAAGTTAAAGCTGTAACAACGAAATTGCATGGATCAAGTAAGCATAGTTTT  
ATCCAGGGAGAAAAATAAAAGGAAGCCATAGAATTGCTCTGGTCAAAACCAAGCACACCATAGCCTTAACTGAAT  
ATTTAGGAAATCTGCCTAATCTGCTTATATTTGGTGTTTGTTTTTGTACTGTTGGGCTTTGGGAAGATGTTATTT  
ATGACCAATATCTGCCAGTAACGCTGTTTATCTCACTTGCTTTGAAAGCCAATGGGGGAAAAAATCCATGAAAA  
AAAAAAGATTGATAAAGTAGATGATTTTGTGTGTATCCCTACCCATCTCCTGGCAGCCCTACTGAGTGAAATTGG  
GATACATTTGGCTGTCAGAAATTATACCGAGTCTACTGGGTATAACATGTCTCACTTGGAAAGCTAGTACTTTTA  
AATGGGTGCCAAAGGTCAACTGTAATGAGATAATTATCCCTGCCTGTGTCCATGTCAGACTTTGAGCTGATCCTG  
AATAATAAAGCCTTTTACCTT

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**FIGURE 1169**

MLFNSVLRQPQLGVLRNGWSSQYPLQSLLTGYQCSGNDEHTSYGETGVVPVPPFGCTFSSAPNMEHVLAVANEEGF  
VRLYNTEQSFRKKCFKEWMAHWNVAFDLAWVPGELKLVTAAAGDQTAKFWDVKAGELIGTCKGHQCSLKSVAFSK  
FEKAVFCTGGRDGNIMVWDTRCNKKDGFYRQVNQISGAHNTSDKQTPSKPKKKQNSKGLAPSVDFQQSVTVVLFQ  
DENTLVSAGAVDGIKQVWDLRKNYTAYRQEP IASKSFLYPGSSSTRKLGYSLLILDSTGSTLFANCTDDNIYMFNM  
TGLKTSPVAIFNGHQNSTFYVKSSLSRDDQFLVSGSSDEAAYIWKVSTPWQPPTVLLGHSQEVT SVCWCPSDFTK  
IATCSDNTLKIWRLNRGLEEKPGDKLSTVGWASQKKKESRPGLVTVTSSQSTPAKAPRVKCNPSNSSPSSAAC  
APSCAGDLPLPSNTPTFSIKTSPAKARSPINRRGSVSSVSPKPPSSFKMSIRNWVTRTPSSSPPI TPPASETKIM  
SPRKALIPVSQKSSQAEACSESRNRVKRRLDSSCLESVKQKCVKSCNCVTELDGQVENLHLDLCLAGNQEDLSK  
DSLGP TKSSKIEGAGTSISEPPSPISPYASESCGTLPLPLRPCGEGSEMVGKENS SPENKNWLLAMAAKRKAENP  
SPRSPSSQTPNSRRQSGKTLPSVITITSSMRKICTYFHRKSQEDFCGPEHSTEL

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**FIGURE 1170**

[illegible]

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**FIGURE 1171**

GCGCTCCCGGAACGCGCGCACCGCAGACGGCGCGGATCGCAGGGAGCCGGTCCGCCGCCGGAACGGGAGCCTGGG  
TGTGCGTGTGGAGTCCGGACTCGTGGGAGACGATCGCGATGAACACGGTGCTGTCGCGGGCGAACTCACTGTTCCG  
CCTTCTCGCTGAGCGTGATGGCGGCGCTCACCTTCGGCTGCTTCATCACCACCGCCTTCAAAGACAGGAGCGTCC  
CGGTGCGGCTGCACGTCTCGCGGATCATGCTAAAAATGTAGAAGATTTCCTGACCTAGAGAAAGAAGTGATC  
TGGGATTTATCACATTTGATATAACTGCTGATCTAGAGAATATATTTGATTGGAATGTTAAGCAGTTGTTTCTTT  
ATTTATCAGCAGAATATTCAACAAAAAATAATGCTCTGAACCAAGTTGTCCTATGGGACAAGATTGTTTTGAGAG  
GTGATAATCCGAAGCTGCTGCTGAAAGATATGAAAACAAAATATTTTTCTTTGACGATGGAAATGGTCTCAAGG  
GAAACAGGAATGTCACTTTGACCCTGTCTTGGAACGTCGTACCAAATGCTGGAATTCTACCTCTTGACAGGAT  
CAGGACACGTATCTGTCCCATTTCAGATACATATGAAATAACGAAGAGTTATTAAATTATTCTGAATTTGAAAC  
AACATATTTTTTATACTTAATGAATTGTATCTCATTAACTCTTCCCTTACATCTTCATGTATTGTTGGTTTGT  
TTTGGTTTTGGGTTTTTTTTTTTTTTTTTTTGGTATAAGAACTAACATCAAAGGCCGTGTTAAAGGGAAAGGTTA  
ATGGGCTACTTAATATTATGAACAAAACAAAAAACAAGGCTGCCACAGTGGAATATTATCTTACAAGAATAAGA  
ACTACATAAAACAGATTTGTAAAAAATACATATTTGAAGTATTCCTGTATTTCCATTATTCTTTATGGAATATA  
AAGTAAGCATGAAAGGTAGTTAAACTTTTCAGGTGCCTGTAGAGTCATAATACTGTATTTTATGCCTTGCATT  
ACGCAAATTCACATTGGATGTGATTTAAAAGTAGACATTCTCTTTTCTCTTTTAGGATATGTTTGATTACTGG  
AAAATTAATATGGTTATTTGTTAGAAGTCTGGTTTATAAAAAAGCCAAAAGTGATGGAATTTATTCCATTTGTCT  
TAGGAAGGCCATAATACTTGTTTTCTTACATGTGACTAGCAACTTTCTCCACTTAAAGACTAAATACCTCTTT  
ATATGATGTAAATTATTCTAATTCATTTTAAATCTTTTAGGTCAGCAAATGTGTGTCTTCAGTGCTTTCTCTA  
AAAACGTTCTTTATAGCTTTGTACTTTTTTTTTTAGCGTTGCCATTGAAAGTTAAATGTTTGCATGGTTTACC  
CTCTGAGTTATGTTTCTTCTAGTGAGCATGCCTGCTGTCACTAAGTGAATTATTTACTACTTTTTGTAGGTCTAT  
ATTTTAATAATTATTGGGATAATAATAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1172**

MNTVLSRANSLFAFSLSVMAALTFGCFITTAFKDRSVPVRLHVSRIMLKNVEDFTGPRERSDLGFITFDITADLE  
NIFDWNVKQLFLYLSAEYSTKNNALNQVVLWDKIVLRGDNPKLLLKDMKTKYFFDDGNGLKGNRNVTLTLSWNV  
VPNAGILPLVTGSGHVSVPFPDTYEITKSY

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**FIGURE 1173**

TTTGCTAAAGCCACCATAAAGGAAATAGTTGTGTGGCCC**ATG**TTGAGGCCAGACATCTTTACTGGTTTAAGGGGA  
CCCCCTAAAGGAATTTTGCTCTTTGGTCCTCCTGGGACTGGTAAAACTCTAATTGGCAAGTGCATTGCTAGTCAG  
TCTGGGGCAACATTCTTTAGCATCTCTGCTTCATCCTTAACTTCTAAATGGGTAGGTGAGGGGGAGAAAATGGTC  
CGTGCATTGTTTGCTGTTGCAAGGTGTCAGCAACCAGCTGTGATATTTATTGACGAAATTGATTCCCTTGTTATCT  
CAACGGGGAGATGGTGAGCATGAATCTTCTAGAAGGATAAAAAACAGAATTTTTAGTTCAATTAGATGGAGCAACA  
ACATCTTCTGAAGATCGTATCCTAGTGGTGGGAGCAACAAATCGGCCACAAGAAATTGATGAGGCTGCCCCGAGA  
AGATTGGTGAAAAGGCTTTATATTCCCCTCCCAGAAGCTTCAGCCAGGAAACAGATAGTAATTAATCTAATGTCC  
AAAGAGCAGTGTTCCTCAGTGAAGAAGAAATTGAACAGATTGTACAGCAGTCTGATGCGTTTTTCAGGAGCAGAC  
ATGACACAGCTTTGACGGGAGGCTTCTCTTGGTCCTATTCGCAGTTTACAACTGCTGACATTGCTACCATAACA  
CCGGATCAAGTTCGACCCATAGCTTACATTGATTTTGAAAATGCTTTTAGAACTGTGCGACCTAGTGTCTCTCCA  
AAAGATTTAGAGCTTTATGAAAACCTGGAACAAAACCTTTTGGTTGTGGAAAG**TAAG**TGGGATACCTGGAATCAAGG  
CATCTCTGTAGTACAGTCTTCTTTATTTTTTAGCATAGAAAAGTTGGGGATGTGTTAATTGTATTTTTAAGAATAT  
ATTCTAAGTTCTGTACTTCAAATAATAGCACAGATTTTACATCTGATTGACATAGTGTATGTTAATGTAAGTTTT  
GCTTTCCAGTGATTACCTGATACGTAAGCCTATTTGAACAAAGTGAGAATGAACTTTTGTTTTCTAAGAAGTCTTT  
ATCTTGAAGCTATATAACATGAAAAGTGAGCTCAAATTTTTTTTAGTTGAAGATTACATATAAAGTTGTGTCTGA  
TTAATATTCATCTTTTATTGAAGAAAGTGCTTCTGATGGCCACATAATTCTTAATGTCAGCTAGTATAATGGTT  
TACATTTGGACAAAGTATTGCTTAGTGTTATTTAAGTAGATTTAAGATCTCAAAGCTAAAGTGCCAATTTTTACT  
TTCTTCAGCCAATTTGTTACCTCTTTTATGGTTTTAAATTTTTTATCAGGACTAACATTTTCAGAAATAGCAAGGT  
GTGATCTAGTATTAGATTCACAGAACTGAAAGGTTAATTAAGAATGTTGGTTATTTTCACGGGAGCGTGTGATAT  
TTAACATTAATATTTTATTGACACTACAGCCTGTAATACTGCTCTCTTCAAAAACAAGTTTTTCAGATTTTTAT  
AACAGACCCATTTTGTTTTATGAAACATGTTTACATTACAGAAACATGAGAAAATAGAGATAAGTAAAAAGAATAAA  
AGTCACTATTATCCTACCACCTTTGCGGGACACACTATTAATATTTAAGCATAGATTCTTCAGATGTTTTGTTTT  
ATACAGCAGTAGGATTGTGTAATGTATTCTCTTGTAGCCTATTCTTCAAAGCGTATCTTCACTTTCCATGTTA  
ACATAAATGTCCTTTTATGATTGTCTAGGATTCCATGGATGGATGGAATATAATTGAGTCATCTGGTAGAGCGCA  
TATAGGACAGGACGCTAGGTTGTTTATCTTTTGTATTGTAAAGGAACATGTGGGATGCATTTGGTGATCTTT  
TTAAAAAATGTATAAATTTCTTGAGTAATTCCTGGATTAAAGAATATGCACTTCTT



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**FIGURE 1174**

MLRPDIFTGLRGPPKGILLFGPPGTGKTLIGKCIASQSGATFFSISASSLTSKWVGEGEKMVRALFAVARCQOPA  
VIFIDEIDSLLSQRGDGEHESSRRIKTEFLVQLDGATTSSDRILVVGATNRPQEIDEAARRRLVKRLYIPLPEA  
SARKQIVINLMSKEQCCLSEEEIEQIVQQSDAFSGADMTQLCREASLGPIRSLQTADIATITPDQVRPIAYIDFE  
NAFRTVRPSVSPKDLELYENWNKTFGCGK

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**FIGURE 1175**

CACATATAATAATAGCAACTCCTGGTCGACTGATTGACCACTTGAAACCTTTCGTATTTTCCAAGTGCTGGCAAG  
CGCTTCCTGCGCAGGCCGAGGCGACCTGGAGTTTGTGACGCTGTGATGGTCTAGAGGCTGGAGATTCAAGATCTG  
GGTGCCATCATTCTGTTCTGTTGATGACCCTCTTCCAGGTTACATACAGCTTACATCTTGCATCCTCAAGCG  
TTTTTCTTATAAGGCTAAAAATTCACAAAGCATATATCAATGAATCAGGAGGATCTAGATCCGGATAGTACTACA  
GATGTGGGAGATGTTACAAATACTGAAGAAGAAGCTTATTAGAGAATGTGAAGAAATGTGGAAAGATATGGAAGAA  
TGTCAGAATAAATTATCACTTATTGGAAGTGAAGCACTCACCGATTCAAATGCTCAGCTATCATTGTTAATTATG  
CAAGTAAAAATGTTTAACCGCTGAAGTCAATGGCAGAAAAAACACCTGAAACAATTCCCTTGACTGAAGAC  
GTTCTCATAACATTAGGAAAAGAAGAGTTCCAAAAGCTGAGACAAGATCTTGAAATGGTACTGTCCACTAAGGAG  
TCAAAGAATGAAAAGTTAAAGGAAGACTTAGAAAAGGGAACAACGGTGGTTGGATGAACAGCAACAGATAATTGAA  
TCTCTTAATGTACTACACAGTGAATTGAAAAATAAGGTTGAAACATTTTCTGAATCAAGAATCTTTAATGAAGT  
AAAACTAAAAATGCTTAATATAAAAAGAATATAAGGAGAAACTCTTGAGTACCTTGGGCGAGTTTCTAGAAGACCAT  
TTTCCTCTGCCTGATAGAAGTGTTAAAAAGAAAAAGAAAAACATTCAAGAATCATCTGTAAACCTGATAACACTG  
CATGAAATGTTAGAGATTCTTATAAATAGATTATTTGATGTTCCACATGATCCATATGTCAAAATTAGTGATTCC  
TTTTGGCCACCTTATGTTGAGCTGCTGCTGCGTAATGGAATTGCCTTGAGACATCCAGAAGATCCAACCCGAATA  
AGATTAGAAGCTTTCATCAGTAAAAGGATGTTTTCTTTTTTACACAGTAAAAATCTTATCATTCAAGGATAT  
TGGAACCACAGGACTATTTGGATAAAAAACATTATTTGCAAATTAATGCGCATAGTACTTTTATTGCAAAATGGC  
ATGTGCTGCCATCTATTATTCATTTTTTAAATGGTCATTTCTTATTACAGTGAGTGCTTTAGTGTTTTAACTATAT  
GGATAAGAATGCAGGTAGATAATATTCTAGGCATAAAACATTTAATGTACCTTACCTCATGCAATATTCTTTGGA  
TTCTTTGTTGATTTATGATATTGCTAATATAATATTTCTTAAATATATAACAATATCTTTTATGCATTTGAGT  
TCCAGCTGGTGCTTCTTTATTTAGAAATTATAATGGGAAGGTCATTTAATTTACAGATGGTTTTAAATTTGAG  
GTAATATCTGAGGTGGCATAATTTAAAAATATTTAGCAAATTTGTTTCATATATACTGTCTTATTTCTAGATTTG  
TTTAAATTTGGAATATGAAAACTAATGGATAAAGCTAGCATAAAATTGATATTTTAGTTTGTATTATTAATATA  
TCATGTTACCTTATATATTAATCTACTCTTGATTCTGCTAATTATTACCAACAAAATTGTATTTCATGACATTTTA  
TTAATCCTCTGTGAATTTTCTGTAAATAAAATTATTTCTGAAATCTCTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1176**

MNQEDLDPDSTTDVGDVNTTEEELIRECEEMWKDMEECQNKLSLIGTETLTDSNAQLSLLIMQVKCLTAELSQWQ  
KKTPEIPLTEDVLITLGKEEFQKLRQDLEMVLSTKESKNEKLKEDLEREQRWLDEQQQIMESLNVLHSELKNKV  
ETFSESRIFNELKTKMLNIKEYKEKLLSTLGEFLEDHFPLPDRSVKKKKKNIQESSVNLITLHEMLEILINRLFD  
VPHDPYVKISDSFWPPYVELLLRNGIALRHPEDPTRIRLEAFHQ

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**FIGURE 1177**

AGTCGCTGTTTGGGACGCTGGGTGTGCGGTGTTCTGTCTCCGCTCCCGTTTCGCTGTCACAGCCCGTTCCCTCCC  
GGAGCCCGGGACAGGCTGGGCGCGCGCCCGTGTGAGTGAGCGGGACTCAGGGCAGAAGTGTCCCCTCACTGCGTT  
TTTTTTTCCTTTTATCCAAAGAACGGGGCAGTTAGTACGCTTGCCCTTCCTGTGCGCCGGTTGGGAGCGGGTTGG  
TGTGCGGAGTGGTTCGCCTTTTTTTCTTTAGAACTTGTGAGCCTTTTTTTTTTTTTTTTTTCTTTCCTTTTTTTT  
AGGCTCAGTGCTGTCCGGGCTGGTTTGCCCGGTCCCTGACTAACGGCTTTCTGCCCCTTCTCTCGCCACCCCTGC  
CCAAGGTCGCCCCCTCGCCTTCGCCCCGTGTCCCGGGAGGGTGGGAAGCTTTGACCCCGCCCTGCCCACTCGCGTC  
TCCGCAGCCGTAGCCGCGCCTGTCCCAATATGAATAGGGTCAACGACCCACTTATTTTTATAAGAGATATTAAGC  
CCGGACTGAAAACTTAAATGTCGTCTTTATTGTCTTGGAGATAGGACGCGTGACCAAAACCAAAGACGGCCATG  
AAGTGAGATCGTGCAAAGTAGCAGATAAAACGGGCAGCATCACTATTTCCGTGTGGGATGAGATCGGAGGTCTTA  
TACAGCCAGGGGATATTATTCGGTTGACCAGAGGGTATGCATCCATGTGGAAGGATGTCTGACACTTTATACTG  
GAAGGGGTGGTGAACCTTCAAAAAATTGGGGATCTAGGTGCGGTGCAGGCAGCCGCAATGCGAGATTCCATACACT  
ACTACCTTGTAATGATCTCCACCCTGACCTGGAGGAGCCATCCTCTCTAGGGGTGTAAAGATTTTGTATGGTTTA  
TTCAGAAGTGCCAAATTTTCACTGAACCCAACCCAGATTATCGAGGACAGCAGAACAAGGGGGCACAGAGTGAACA  
GAAGAATAATTCCATGAATAGTAATATGGGTACAGGTACATTTGGACCAGTGGGAAATGGTGTTCACACTGGCCC  
TGAATCAAGGGAACACCAGTTTTTACATGCTGGCAGAAGCAATGGCCGGGGACTTATAAATCCACAACCTACAAGG  
AACAGCTAGTAATCAAACAGTGATGACCACAATAAGTAATGGCAGGGACCCTCGGAGAGCCTTTAAAGATGACC  
TATGCTAAATACTCATGTGTAGTTTTTATACTACATGCCCTACTTGAACACTTATTGCACTTTTATTTATTGTTA  
ACTGTGAAAAGTACGTCCTTTATTGGGTTTCCTTTTATATTCTTGGTTTGTAAAGAAGATGGTTTGTTTTATA  
GCAAACTGTTAAGCTGCTCGAGTCTCCTGTTGAAGAATGGGAACACTGAAAAGTAGGGGCATTTATTTTATAGAG  
TAAAAAGATTATTGGATAGCCTTTAAAAAACCTGCACCCATTTTATGGGTGAGTTACTTAAGACATCAGCTTTAT  
AGCCTCTATGAGTCTATCTTCTGTATAAGTTTTGTAATATTTAACAATAAGGCTTAATGGGAGATGTTCTTTTGTG  
TTGTATTACAGATATTGCCAACTAAAGCAATAACCATCAAAAAACACAAGAACTTGTCAATGCTAGCAGTAATTTT  
TGAGTGTTTGTGGCTCTCGGAATGATTGACTTCGTTTCACTGACTACTATTAAGATTTTCCAAGGACTGACTCATC  
CCAAATTTTGTGTTGATTACCAAAAAACAGATTTCCTTATCAGAATTTGGAATAGAATGTGATCTCTATTGCAAC  
AAGTAATTTTAAAAGAAAGCTTACATTTATTTTAGAGTAGTGCTCCTAACATGTATTATCAACTTTGTGGATTACA  
TTGGAGGAAAATTTAAAACCTGGGGCCTTGAATATTTATTTTTTGAACCTACCATGTTAAATACTGAAGTATAATT  
TGGGGGAGTTATAAAGTTATGATAAACATTTCATCTGATTATTTTAAACAATAGTTGTGGTAGATAAACATACTGG  
AGGTGAGTAAAATTGAATTCATATAGTAACATGCAGTCTGAAGTCCTAGTTACTTAATAGGTACTCAGCCTGGAG  
TGAAAATCCTGGGTACTGACTTTGAGAGGAGTGAGTGTGCATGTTGTCAAAGTTTCTGAACACAGTTTACATAGC  
CTTATTAGCAAAAGTTTTAAGAAATGGCTCTATCAAAGAAGCAATTGCAGCTTTATTCAGAAATATAAAAGTGA  
ATTTATGTACATGTCATAAGTGGTACCCACTTCCCCTTTTTACTGTAGGGTGGATAACTCTTAGGATTTAACTCT  
TTGAATATTATCTCTTGAATAAAGCATGTGTTAATGTTAACAACCTACGTAATTTTGGCCCTTCAATGACTTA  
CAGTGGAGAGCCAGTACATCTTAACCTACTGTTGTAGTGATGGTATCAACCTCATGGTTACTTAGCTCTGCATTG  
TTGCTTTGTTTTTTTTTCCACTTCAAATCACAAAATAAGTAGATTTTGTCTTGAACCTCCATAGCATTGAAT  
ACAAAAAGTTGTGCCAGATTGTTTGCCCTAATTCAGTGTGTTTAAACAATATTTTCACTACACACTATGTATTAGG  
CACTGTGTGGAAAGTGTTAAGGGGTAGACAAGATACCGAATAATCTCCACAAGTTTATTTGTGGTCTATAGTACT  
TTTGTAACCTGGGGTTACAAAAATTATAGAAATTTTTTCCCTTTGTTTCATATGCATATTCATGATTATAATTGGC  
TTTGTGTTGTGATTAATGTTTCTTAAAGATTTTACATTATAGAATACCTCAAAGAAGTTGTCTAAGGACTGGGA  
TAGAGAGTATGTTTCATAAAATTGTAGATGTTTAGAATTTTTAAAAACCCTACAAATTAGTATATGATTGTTTAA  
TATAAGTAAGATAGGAGCAACACTTTAAATTATTTGTGGGAGAATACAGCATTAAGGTGATTTTAAAAGAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1178**

MNRVNDPLIFIRDIKPLKLNLVVFIVLEIGRVTKTKDGHEVRSCKVADKTGSITISVWDEIGGLIQPGDIIRLT  
RGYASMWKGLTLYTGRGGELQKIGDLGAVQAAAMRDSIHYYPGNDLHPDLEEPSSLGV

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**FIGURE 1179**

CAGCCACCTCTTGCATCGTCACCTACAGGTATCTAAGCAATGGATCCAAGCCCTGGAGGTTGGTGAGAGCCATG  
TATTACCCCTAGATGAAATTGGACAAGAGACC**ATGA**CCGTAACCCCTCCTCGATGCCAATCACTGTCTGTTCTG  
TCATGTTTCTCTTTGAAGGATATTTTGAACCATCCTCTACACAGGTGATTTTCGATACACACCATCCATGCTAA  
AGGAGCCAGCCCTGACACTGGGGAACAGATCCATACTTTATACCTAGACAACACCAATTGCAATCCAGCCCTGG  
TTCTTCCTTCCCGACAAGAAGCTGCCCACCAGATTGTCCAGCTCATTGAAAACACCCACAACATAACATAAAGA  
TTGGACTCTACAGCCTGGGAAAGGAATCACTGCTGGAGCAGCTGGCCCTGGAGTTTCAGACCTGGGTGGTATTGA  
GTCTCGGCGCCTGGAGTTGGTACAGCTACTGGGCCTGGCAGATGTGTTACAGTGGAGGAGAAGGCTGGCCGCA  
TCCATGCAGTAGACCATATGGAGACCTGCCATTCCAACATGCTGCGTTGGAACCAGACCCACCCCTACGATTGCTA  
TCCTTCCCACAAGCCGAAAAATCCACAGCTCCCACCCTGATATCCACGTCATCCCTTACTCTGACCATTCCTCTT  
ACTCCGAGCTTCGTGCCTTTGTGCGCAGCACTGAAGCCTTGCCAGGTGGTGCCCATTTGTAAGTCGGCGGCCCTGTG  
GAGGCTTTCAGGACAGTCTGAGCCCCAGGATCTCCGTGCCCTGATTCCGGA CTCTGTACAGCAATACATGAGTT  
CTTCTCTAGAAAACCAAGCCTTCTCTGGCTGTTAGAAAGGAGGCTAAAGAGGCCGAGAACCCAAAGGTGTTGTGT  
TTGAATCCCCTGAGGAAAGTGCTGATCAATCTCAAGCTGACAGAGACTCAAAGAAGGCCAAGAAAGAGAAACTTT  
CTCCCTGGCCTGCGGACCTTGAAAAGCAGCCTTCCCACCATCCTTTGCGGATCAAGAAGCAGTTGTTCCCAGATC  
TCTATAGCAAAGAATGGAACAAGGCAGTGCCCTTCTGTGAGTCTCAAAAGAGGGTGACTATGTTGACGGCCCCAC  
TGGGATTTTTCAGTGCACCTTAAGGTCTACAGATGAGGAGTTTATTTCTCAAAAACCAGGGAGGAAATTGGTTTAG  
GGTCCCCCTTGGTACCCATGGGAGATGATGATGGAGGTCCAGAAGCCACAGGGAATCAGAGTGCCTGGATGGGCC  
ATGGTTCTCCCCTGTCCACAGCAGCAAGGGCACCCCTCTTCTAGCTACTGAATTCAGGGGTCTAGCACTCAAAT  
ATCTTCTGACTCCAGTGAACCTTTTTCCAGGCAGGGTATTCTTCCAGGAGATTTGACCAGCAAGTGGAATAATACC  
ATAAACCCCTGCT**TGA**AGACAGGAGAGTACAGAATGACAACATTGAGCCCACACTGCAGTTTTGAAGATAGTAACTG  
ATGGCTGGTGGGAAAGAGTTTGTTTTTGGGGCTACTTTTCTATCTTTACAAGACTCTTATGGGGCCACCGTGGA  
GCAGCACTTCCCAAACTTGTTCACTGGGGTCTCGTGCTATGGAATCCTTCTTTTTATAACTAAGTTTAAAGAA  
ATACTTTTTTTATAAAATCTTTGGAGTATGCGTGAGCAAATTAAGAGTTCTTTGAAGTCTACAGTAACTTAATC  
TGTTTAACCTTGTTTAACCCAGTATTTCTCAAACCTTTTGTGAACATGCAATCATCTTATGTGGGTACAGAAAAG  
GTAAAGAGTCTGAATCAAAAAGGACCAGGTTATTGCTGTTGCTGTTTTGTGGTGTGATGAGCCATTCTCCATGTC  
CCCTTCTCCCTCTTCTCAGATCAAAATCCCTAGGGAGTTCTATTTTTAAATATGAATATGGCGCTGCATGCT  
TCAATCCTGAACGTCACCTGACTTGCTGTGACCATCCAAATAATTTTCTGTCTCTGCCTCTGGGAGGGAACAGGA  
AGCGATGAAGAGGTCTTGGAACAGTAGTGAAAATTTCTACCTCTATGTCCTTCATGAGGATGTGCAGTATCCCAGT  
ATCACTGGGATCCATGTGGAACAGAGCCAGCTGGGGGTTGGGCAGCTCTCTCCAAGGCAGTACCTAGAGCCCAG  
CTGAACAACAAGGCTTTGGGTGTGAAGGGACTCCCCAGCCTGGAGACCCTATTTGGCTGAAACAGTTACAAAATA  
TCAAATGTGTTGTGATATTTCTCCAATTGTTTACATAGCTGGGATATTTGTTGCTCCCTCACCCCTTGGATT  
ATGTAGGGAGCCAGTGCACACAGCCTGTTTGTTTTAGTATCCAAGGAAGAGACCAAGGAGCCAGCTGGCGGGAAG  
GGGTGGGGTGTGCAGTCTGCCCTGTCTTCTGCTCATAACCTGACAAAATGCCAACTAGTAAGCAGGATAGCT  
GATACCACGGCTATGAGGGAGTAGGCTCCGAGAGGGCACAGACTTGTGGAGCTGGGCGTCTGGATCAAACTGCT  
TTGGGATGGAACCTCGAGCCCTAGCAGTGAAGAAGATTCCATTTCTTGTCCAGGGGATTTAAAGAGTTTCTGTC  
TTTGAGAGAGAAATAGAGAGTTTAGAAAGCAATTGCTCTTGGGAAAGCTATACACAGCTCTGTTTTGTCAATGAC  
CTTTGTTGTAAGTCTCCCAACGTCTATTAGGAGCCACAGCAGGTGAGGCATTTGGTGCAGCAGGAAACATGGGG  
ACTGCCTAGGCTCGAATCTGTGGCACCCCTGAGCAATTACTTAAATTGTGGAGCCTAGTTTCTCATCTGTAAGATG  
GACTTGAGATTCTACCTCTCATGATTACTATGGAGATTGAATAATTGGTAAAATTCTCTAGCTCAGTGACTGC  
CACAGGATGGGTCTTTCAGATTTTGGTTCTCTTTAGCTTCTGGTTCTTGAAAGAAATTGATCTGTATATAACATA  
AGAAACTTTGAAAGTC

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**FIGURE 1180**

MTVTLLDANHCPGSMFLFEGYFGTILYTGDFRYTPSMLKEPALTLGKQIHTLYLDNTNCNPALVLPSRQEAAHQ  
IVQLIRKHPQHNIKIGLYSLGKESLLEQLALEFQTWVVLSPRRLELVQLLGLADVFTVEEKAGRIHAVDHMETCH  
SNMLRWNQTHPTIAILPTSRKIHSSHPDIHVIPYSDHSSYSELRAFVAALKPCQVVP IVSRRPCGGFQDSLSPRI  
SVPLIPDSVQQYMSSSSRKPSLLWLLERRLRKRPRTQGVVFESPEESADQSQADRDSKKAKKEKLSPPADLEKQP  
SHHPLRIKKQLFPDLYSKEWNKAVPFCESQKRVTMLTAPLGFSVHLRSTDEEFISQKTREEIGLGSPLVPMGDDD  
GGPEATGNQSAWMGHGSPLSHSSKGTPLLATEFRGLALKYLLTPVNFFQAGYSSRRFDQQVEKYHKPC

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**FIGURE 1181A**

CCGGTTCCCGCGGTTCGCAGCTCCAGCCGCCTCCTCCGCGCAGCCGCCGCTCAGCTGCTCGCTCTGTGGGTTCGGT  
CCTCTCCGGCACTTGGGCTCCAGTCGCGCCCTCCAAGCCCTTCAGGCCGCCCCAGTGTCTCTCTCTTCTCCGGC  
CAGACCCAGCCCCGCGAAGATGTGGACCGCGAGCAACTGGTGAGAAAGCCCGGTGGCCGAGCAGGCGGAGCG  
CTACGACGACATGGCCGCGGCCATGAAGAACGTGACAGAGCTGAATGAGCCACTGTGCAATGAGGAACGAAACCT  
TCTGTCTGTGGCCTACAAGAACGTTGTGGGGGCACGCCGCTCTTCTGAGGGTTCATCAGTAGCATTGAGCAGAA  
GACATCTGCAGACGGCAATGAGAAGAAGATTGAGATGGTCCGTGCGTACCGGGAGAAGATAGAGAAGGAGTTGGA  
GGCTGTGTGCCAGGATGTGCTGAGCCTGCTGGATAACTACCTGATCAAGAATTGCAGCGAGACCCAGTACGAGAG  
CAAAGTGTCTACCTGAAGATGAAAGGGGACTACTACCGCTACCTGGCTGAAGTGGCCACCGGAGAGAAAAGGGC  
GACGGTGGTGGAGTCTCCGAGAAGGCCTACAGCGAAGCCCACGAGATCAGCAAAGAGCACATGCAGCCCACCCA  
CCCCATCCGATTAGGCCTGGCTCTTAATACTACTCCGTTCTTACTATGAGATCCAGAAGCCCCAGAGCAAGCGTG  
CCACTTGGCCAAGACCGCGTTCGACGACGCCATCGCCGAGCTTGACACCCTCAACGAGGACTCCTACAAGGACTC  
CACGCTCATCATGCAGCTCCTCCGCGACAACCTCACGCTCTGGACGAGCGACCAGCAGGACGACGATGGCGGCGA  
AGGCAACAATTAAGGCCCCAGGGGAACTGGCAGCGCACGCGGATGCTACTACTGCAGTCTTTATTTTTTCCCAT  
GAGTTGGGGGTCGGTGGGGGAGGGAAAGGGAGGGATGACCTTCCAGGGAGAAACCCACGACCTGTCTGTCTT  
TGATCGCTCTTTGACATTTTTGCCAAAATACCACTAGTGGAAGTCAGGCTAGCTGTGCTGGTATTGGAATAGC  
AGCCTCACACTGGCGTCTGGACTGTTCTGTAGATTGCAAGTGGAGCTGTCTGTCTCTAATTTAACTTATTGC  
TAGATAATAGGGTTTTAGATGAAAAGAAAACCTAAAGAGGAATGGCCCTCATTAGTAAGTTCTGTGGTTCCAG  
TAAGGATTTTTATGTACATACGCTCTCGTCTCTCGTTTTGGGTACTTTCTATCTCATCTGTCTCGGCTCTGCATG  
TTTTCCAGGGTGTAGCCTACAGACATGGAACAGTGTAAATCCCAGACTGACAGACTTAGAACCTGAGGTCTCATT  
CATCCTTATGGTTTAGGCCTTGCCAGTTTTCCGAAGTCTCTGATTAGTTGACAGTATTAACACTAAATTGCAGTT  
TACAGTATTTCTACATTACAGCCATATGTAACATCAAGCCATCGATTGTGTACTTTTCCTTTGCTAGTTGTTTGG  
GCTTTAACATCCTTATTCAGCCTTATCCAGGTTGGTTTTGCTGTTGATCGGTCTCTTAGGCTAAATGAGAATGAA  
AGCGACTTCAGGTTTTTGGTTCATAGGTGCTCGGCAGGTGGCTGTGGGATTTTTTTTTTTGGTCTCTCTTCTCCTC  
TTAACGTAAATCCACCACCAAAATTATTAATCCTCTTGAGAGAAAACGTGAAACGCCACAAAATAGAGAAAATTC  
AGGTCTGTATGTATGGATCGTGTGGTATTTTTAGAGAACATCCCGCTTCTGAAGCTGCTGCAGCTCCCTCCTC  
AGGGATCACACTGCCGTACCCACTCTGCACTGGGGCGTTTTCTACTGCGCCTCGTGTGGCGGACGCAGCTGGG  
TGCAGAAGCTGTGGGGTCGGAGAGGCGTTTTGGAGAAGGTCTGTGGTGCAGTGTGTGAAAATTCAGGTGCTAGAAG  
CCTACTGGTAGAAAAACCCAAAAGGAAGAGCTATATCCTTAACCATTTCTGTCCAATTTCTGGGAGCCTTGTGAGTG  
TGTCAGTTTTTCTCCCGAAGACACTCCTTCCCCAAGTAATTGTAGGAAGATAAAAAAACTGTTACCAGATAAC  
AAACACTTAACCTCCTATTTGACCAGAACTTTTTCTCTCGAGATAGTTTTTTCTTTTAAAGAAAAAGCATAGG  
AATTGGAGATTGGCTTGTCTCACGCAGCCAGTGCACATTTGGAATTGACGGAACAACGTTGCTATTTCCACCCA  
TTTGTTCGCGCAGCCTTAAGGCCCTCATTCTCATTTCGGGTGAATCTGTCTATCTGTGAACGTGGCCCGCATGT  
GCATTCTTTTTTTATATATATAAAGTCAGTGACGAGGCACTCCCGAGACGTGTAATGACACCACACTTGTTC  
TTTGTTCCTTTGTTTTATTTAGGCAAGAAGAGGTGTGAGTAATTGAGGAAAACTGACAGATGCTTTTGCTAATA  
CCAAAATTGAGCTTACAATTAGGAAGTGAATGTGTAACAGGATACAGGTGACAGTGAAGATAGAAGAACCACG  
ATGACCACAGACTCAATGTGCTCTGTAACATCGCACAGTTTACCCAGCATGACTTTCCTTAGGAGGCCCTCCT  
CACGCTAGAGTAAAAGTCCAGTTAAGTGAAGCCTACCAGAAGAACTAGTAGAAGAAGCTTGCCGCTTTTGTGC  
CTCTCACAGGCGCCTAAAGTCATTGCCATGGGAGGAAGACGATTTGGGGGGGGAGGGGGGGGAGGGTAGGTGG  
GGCTTTCCCTAATTTATCTTCAIGTCCAGTGAGCAGTGTTCGTTTTCTTGTAGCATTTGGAAATGATTTACT  
GGAATTACAAAACCTATTTTTCTTTAAATTTTTCAGCTTTGGCTCTGGCTGCTTTTTAGAAATGCAAGATAAAA  
ATCACACCTGAGGGCTGAAAACGGAGAGGGAATGGGAGACTTGATATTTAAGCAGCTTGAATGGTTTTTCTTTTC  
TTTATTTTTAAAGAAATGCACTTGCCTATGATACTGTCTCTCCAGTGAAATGATTACTCTCATTACTCTATTG  
ATACAATATTGTGCATGCTAGTGTGTATTTCTATACAGTAGCTTGAAATTGATTAACCTTATACTGTAGGTGTTA  
TGTATTCCTATGACAAAAAAATTAAGTCTTCAATTTTTTAAAGGTTTTTTTTTTTTTAAATTTAATTTTTCTTTT  
TGGGGGTAAAGTTTGTCTTACCAAATAGTGATTGTAACAAATTGATCTGTTTTGGATGTTGCTATAGTGACATGC  
AGTTATATATTTGTTTTTAAAGGGGGGGAGCAAAAGAAACACCAGTGTTAGCTTAATCTTAATGTCTGGTGT  
TGTCATGGTGAAATTATAACTATTACAGTGTGGAGAACAACAAATATGTTCTCTGAATGAGCCTTTGTGCTTTT  
TGTCATGTTATGCAGTGAACATTTTTAAGGTCTAATCAGTGATTATTTTTCCAGCTCCGTGTTTCTCTAAGGAA



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**FIGURE 1181B**

TTATTTACACACGGACCATCTTTAGCAGTTTCCTCAGTGATGGAATATCATGAATGTGAGTCATTATGTAGCTG  
TCGTACATTGAGCAAATAAACTTACAGATCTGACGCC

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**FIGURE 1182**

MVDREQLVQKARLAEQAERYDDMAAMKNVTELNEPLSNEERNLLSVAYKNVVGARRSSWRVISSIEQKTSADGN  
EKKIEMVRAYREKIEKELEAVCQDVLSLLDNYLIKNCSETQYESKV FYLKMKG DYRYLAEVATGEKRATV VESS  
EKAYSEAHEISKEHMQPTHPIRLGLALNYSVFYYEIQNAPEQACHLAKTAFDDAIAELDTLNEDSYKDSTLIMQL  
LRDNLTLWTSDQQDDDGEGNN

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**FIGURE 1183**

AGCAGTGGCCCAAAGAGGAGCAGCAGACAAGAGTGCAGTGGTGGCTGCCGCCGCACCAGCCTCAGTGGCAGATGA  
CACACCACCCCCGAGCGTCGGAACAAGAGCGGTATCATCAGTGAGCCCCTCAACAAGAGCCTGCGCCGCTCCCG  
CCCGCTCTCCCACTACTCTTCTTTTGGCAGCAGTGGTGGTAGTGGCGGTGGCAGCATGATGGGCGGAGAGTCTGC  
TTGACAAGGCCACTGCGGCTGCAGCCTGGCCTTCCCTGTTGGCCAATGGGATGACCTGGCGGCGGCC**ATG**GCGGT  
GGACAAAAGCAACCCTACCTCAAAGCACAAAAGTGGTGTGTGGCCAGCCTGCTGAGCAAGGCAGAGCGGGCCAC  
GGAGCTGGCAGCCGAGGGACAGCTGACGCTGCAGCAGTTTGCGCAGTCCACAGAGATGCTGAAGCGCGTGGTGCA  
GGAGCATCTCCCGCTGATGAGCGAGGCGGGTGTGTGGCCTGCCTGACATGGAGGCTGTGGCAGGTGCCGAAGCCCT  
CAATGGCCAGTCCGACTTCCCCTACCTGGGCGCTTTCCCCATCAACCCAGGCCTCTTCATTATGACCCCGGCAGG  
TGTGTTCCCTGGCCGAGAGCGCGCTGCACATGGCGGGCCTGGCTGAGTACCCCATGCAGGGAGAGCTGCCTCTGCC  
ATCAGCTCCGGCAAGAAGAAGCGGAAACGCTGCGGCATTGTGCGCGCCCTGCCGGCGGCGCATCAACTGCGAGCA  
GTGCAGCAGTTGTAGGAATCGAAAGACTGGCCATCAGATTTGCAAATTCAGAAAATGTGAGGAACTCAAAAAGAA  
GCCTTCCGCTGCTCTGGAGAAGGTGATGCTTCCGACGGGAGCCGCCTTCCGGTGGTTTT**CAGTGAC**GGCGGGCGGAA  
CCCAAAGCTGCCCTCTCCGTGCAATGTCACTGCTCGTGTGGTCTCCAGCAAGGGATTGGGGCGAAGACAAACGGA  
TGCACCCGTCTTTAGAACCAAAAATATTCTCTCACAGATTCATTCCTGTTTTTATATATATATTTTTTGTGTGTC  
GTTTTAACATCTCCACGTCCCTAGCATAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1184**

MAVDKSNPTSKHKSGAVASLLSKAERATELAAEGQLTLQQFAQSTEMLKRVVQEHLPLMSEAGAGLPDMEAVAGA  
EALNGQSDFPYLGAFPINPGLFIMTPAGVFLAESALHMAGLAEYPMQGELPLPSAPARRSGNAAALCAPCRRRIN  
CEQCSSCRNRKTGHQICKFRKCEELKKKPSAALEKVMLPTGAAFRWFQ

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**FIGURE 1185**

GGAACAAAAGCTGGAGCTCCACGCGGTGGCGGCCGCTCTAGAACTAGTGGATCCCCCGGGCTGCAGGAATTTCGG  
CACGAGCAGAAGAGGGGGCTAGCTAGCTGCTCTGCGGACCAGGGGAGACCCCGCGCCCCCGGTGTGAGGCGG  
CCTCACAGGGCCGGGTGGGCTGGCGAGCCGACGCGCGGCGGAGGAGGCTGTGAGGAGTGTGTGGAACAGGACCC  
GGGACAGAGGAACCA**ATG**GCTCCGCAGAACCTGAGCACCTTTTGCTGTGTGCTGCTATACCTCATCGGGCGGTGA  
TTGCCGGACGAGATTTCTATAAGATCTTGGGGGTGCCTCGAAGTGCCTCTATAAAGGATATTAAAAAGGCCTATA  
GGAACTAGCCCTGCAGCTTCATCCCGACCGGAACCCTGATGATCCACAAGCCCAGGAGAAATTCCAGGATCTGG  
GTGCTGCTTATGAGGTTCTGTCTCAGATAGTGAGAAACGGAAACAGTACGATACTTATGGTGAAGAAGGATTAAAG  
ATGGTCATCAGAGCTCCCATGGAGACATTTTTTACACTTCTTTGGGGATTTTGGTTTCATGTTTGGAGGAACCC  
CTCGTCAGCAAGACAGAAATATTCCAAGAGGAAGTGATATTATTGTAGATCTAGAAGTCACTTTGGAAGAAGTAT  
ATGCAGGAAATTTTGTGGAAGTAGTTAGAAACAAACCTGTGGCAAGGCAGGCTCCTGGCAAACGGAAGTGCAATT  
GTCGGCAAGAGATGCGGACCACCCAGCTGGGCCCTGGGCGCTTCCAAATGACCCAGGAGGTGGTCTGCGACGAAT  
GCCCTAATGTCAAACCTAGTGAATGAAGAACGAACGCTGGAAGTAGAAATAGAGCCTGGGGTGAGAGACGGCATGG  
AGTACCCCTTTATTGGAGAAGGTGAGCCTCACGTGGATGGGGAGCCTGGAGATTTACGGTTCCGAATCAAAGTTG  
TCAAGCACCCAATATTTGAAAGGAGAGGAGATGATTTGTACACAAATGTGACAATCTCATTAGTTGAGTCACTGG  
TTGGCTTTGAGATGGATATTACTCACTTGGATGGTCACAAGGTACATATTTCCCGGGATAAGATCACCAGGCCAG  
GAGCGAAGCTATGGAAGAAAGGGGAAGGGCTCCCCAACTTTGACAACAACAATATCAAGGGCTCTTTGATAATCA  
CTTTTGATGTGGATTTTCCAAAAGAACAGTTAACAGAGGAAGCGAGAGAAGGTATCAAACAGCTACTGAAACAAG  
GGTCAGTGCAGAAGGTATACAATGGACTGCAAGGATAT**TGA**GAGTGAATAAAATTGGACTTTGTTTTAAATAAGT  
GAATAAGCGATATTTATTATCTGCAAGGTTTTTTTTGTGTGTGTTTTTGTTTTTATTTTCAATATGCAAGTTAGGC  
TTAATTTTTTTATCTAATGATCATCATGAAATGAATAAGAGGGCTTAAGAATTTGTCCATTTGCATTTCGAAAAG  
AATGACCAGCAAAAAGGTTTACTAATACGTCTCCCTTTGGGGATTTAATGTCTGGTGCTGCCGCTGAGTTTCAAG  
AATTAAAGCTGCAAGAGGACTCCAGGAGCAAAAGAAACACAATATAGAGGGTTGGAGTTGTTAGCAATTTTCATTC  
AAAATGCCAACTGGAGAAGTCTGTTTTTAAATACATTTTGTGTTATTTTT

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**FIGURE 1186**

MAPQNLSTFCLLLLYLIGAVIAGRDFYKILGVPRSASIKDIKKAYRKLALQLHPDRNPDDPQAQEKFQDLGAAYE  
VLSDSEKRRKYDITYGEEGLKDGHQSSHGDI FSHFFGDFGFMFGGTPRQQDRNIPRGSDI IVDLEVTLEEVYAGNF  
VEVVRNKPVARQAPGKRKCNCRQEMRTTQLGPGRFQMTQEVVCECPNVKLVNEERTLEVEIEPGVRDGMETPFI  
GEGEPHVDGEPGDLRFRIKVVKHPI FERRGDDLYTNVTISLVESLVGFEMDITHLDGHKVHISRDKITRPGAKLW  
KKGEGLPNFDNNNIKGSLIITFDVDFPKEQLTEEAREGIKQLLKQGSVQKVYNGLQGY

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**FIGURE 1187**

GGCACGAGGGCCAGGAACGCCAGCCGTTTACGCGTTTCGGTCCCTCCTTGGCTGACTACCGCCCTCGCCGCCGCAC  
**CATG**GACGCCCCCAGGCAGGTGGTCAACTTTGGGCCTGGTCCCGCCAAGCTGCCGCACTCAGTGTTGTTAGAGAT  
ACAAAAGGAATTATTAGACTACAAAGGAGTTGGCATTAGTGTTCTTGAAATGAGTCACAGGTCATCAGATTTTGC  
CAAGATTATTAACAATACAGAGAATCTTGTGCGGGAATTGCTAGCTGTTCCAGACAACATAAGGTGATTTTTCT  
GCAAGGAGGTGGGTGCGGCCAGTTCAGTGCTGTCCCTTAAACCTCATTGGCTTGAAAGCAGGAAGGTGTGCGGA  
CTATGTGGTGACAGGAGCTTGGTCAGCTAAGGCCGAGAAGAAGCCAAGAAGTTTGGGACTATAAATATCGTTCA  
CCCTAAACTTGGGAGTTATACAAAAATTCCAGATCCAAGCACCTGGAACCTCAACCCAGATGCCTCCTACGTGTA  
TTATTGCGCAAAATGAGACGGTGCATGGTGTGGAGTTTGACTTTATACCCGATGTCAAGGGAGCAGTACTGGTTTG  
TGACATGTCTCAAACCTTCTGTCCAAGCCAGTGGATGTTTCCAAGTTTGGTGTGATTTTTGCTGGTGCCAGAA  
GAATGTTGGCTCTGCTGGGGTCACCGTGGTGATTGTCCGTGATGACCTGCTGGGGTTTGCCCTCCGAGAGTGCC  
CTCGGTCTTGGAATACAAGGTGCAGGCTGGAAACAGCTCCTTGTACAACACGCCTCCATGTTTACAGCATCTACGT  
CATGGGCTTGGTTCTGGAGTGGATTAAAAACAATGGAGGTGCCGCGGCCATGGAGAAGCTTAGCTCCATCAAATC  
TCAAACAATTTATGAGATTATTGATAATTCTCAAGGATTCTACGTTTGTCCAGTGGAGCCCCAAAATAGAAGCAA  
GATGAATATTCCATTCCGCATTGGCAATGCCAAAGGAGATGATGCTTTAGAAAAAAGATTTCTTGATAAAGCTCT  
TGAATCAATATGTTGCTCTTGAAGGGCATAGGTCTGTGGGAGGCATCCGGGCCTCTCTGTATAATGCTGTCAC  
AATTGAAGACGTTCAGAAGCTGGCCGCCTTCATGAAAAAATTTTGGAGATGCATCAGCTAT**TGA**ACACATCCTAA  
CCAGGATATACTCTGTTCTTGAACAACATACAAAGTTTAAAGTAACTTGGGGATGGCTACAAAAGTTAACACAG  
TATTTTTCTCAAATGAACATGTTTATTGCAGATTCTTCTTTTTTGAAGAACAACAGCAAAACATCCACAACCTCT  
GTAAAGCTGGTGGGACCTAATGTCACCTTAATTCTGACTTGAAGTGAAGCATTTTAAGAAATCTTGTTGCTTTT  
CTAACAAATTCCCGCGTATTTTGCTTTGCTGCTACTTTTTCTAGTTAGATTTCAAACCTTGCTGTGGACTTAAT  
AATGCAAGTTGCGATTAATTATTTCTGGAGTCATGGGAACACACAGCACAGAGGGTAGGGGGCCCTCTAGGTGC  
TGAATCTACACATCTGTGGGTCTCCTGGGTTTCAAGGTCAGCGCTGTTGATTCAAGGTCAACATTGACCATTGGAGGAGT  
GGTTTAAGAGTGCCAGGCGAAGGGCAAAGTGTAGATCGATCTTTATGCTGTTATTACAGGAGAAGTGACATACTT  
TATATATGTTTATATTAGCAAGGTCTGTTTTTAATACCATATACTTTATATTTCTATACATTTATATTTCTAATA  
ATACAGTTATCACTGATATATGTAGACACTTTTGAATTTATTAAATCCTTGACCTTGTGCATTATAGCATTCCA  
TTAGCAAGAGTTGTACCCCTCCCGAGTCTTCGCTTCTCTTTTTTAAGCTGTTTTATGAAAAGACCTAGAAGT  
TCTTGATTCATTTTTACCATTCTTTCCATAGGTAGAAGAGAAAAGTTGATTGGTTGGTTGTTTTTCAATTATGCCA  
TTAAACTAAACATTTCTGTTAAATTACCCTATCCTTTGTTCTCTACTGTTTTCTTTGTAATGTATGACTACGAGA  
GTGATACTTTGCTGAAAAGTCTTTCCCTATTGTTTATCTATTGTCAGTATTTTATGTTGAATATGTAAAGAACA  
TTAAAGTCCTAAACATCTAAAAA

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**FIGURE 1188**

MDAPRQVVNFGPGPAKLPHSVLLEIQKELLDYKGVGISVLEMSHRSSDFAKIINNNTENLVRELLAVPDNYKVIFL  
QGGGCGQFSAVPLNLIGLKAGRCADYVVTGAWSAKAAEEAKKFGTINIVHPKLGSYTKIPDPSTWNLNPDASYVY  
YCANETVHGVEFDFIPDVKGAVLVCDMSSNFLSKPVDVSKFGVIFAGAQNVSAGVTVVIVRDDLLGFALRECP  
SVLEYKVQAGNSSLYNTPPCFSIYVMGLVLEWIKNNGGAAAMEKLSSIKSQTIIYEIIDNSQGFYVCPVEPQNRSK  
MNIPFRIGNAKGDDALEKRFLDKALELNMLSLKGHRVGGIRASLYNAVTIEDVQKLAAFMKKFLEMHQL



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**FIGURE 1189**

CGCCCGTCGGGGTCTCGTTTCAGCAGCCAATGGGTCTGCACCTTCGTCCTCGTCAGCATTCTGTCTAATCGCGGC  
CTGTGACCTCGAAGGCGGGAGCAGAGGGAGATACAGAAACCGACAGGGCCAGGCGCCGGTGGCTCCGAAGCGGG  
GAAGTGGGACAAGATGGTTTACATCTCGAACGGACAAGTGTGGACAGCCGGAGTCAGTCTCCATGGAGATTATC  
TTTGATAACAGATTTCTTCTGGGGAATAGCTGAGTTTGTGGTTTTGTTTTTCAAACTCTGCTTCAGCAAGATGT  
GAAAAAAGAAGAAGCTATGGAACTCATCTGATTCCAGATATGATGATGGAAAGAGGGCCACCAGGAAACCTCC  
CCGAAGAATGGGTAGAATCAATCATCTGCGTGGCCCTAGTCCCCCTCCAATGGCTGGTGGATTCAGGAAGGTAAAT  
GTCTGCTCTAAGAAGCAGACAACCGGACATGCGCATTCATAGCAGAAGGAAACCATCAAGAAGTGGAAGGCTGAC  
CATGATGAGCAGTAGATGAATGTGTATGTCTAAACAAGGACTGCTCTGTGTCCTCACAGATGAATGAGGTCATGC  
TGGGAATTCCCTCTGCAGGGAAGTGGCCTGACTGACATGCAGTTCCATAAATGCAGATGTTTGTCTCATTACCTT  
TTTGTATAGTTTATTAAAGTATTAATATAGTTTTAATAAGTAAATATTTTAGGTTGCAGAATGGACTCCTCATC  
TTTATATTACGAAAAAGCAATCTGAAGAAAACAAATAAAAGCCTGTGTATTTAGCAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAA

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**FIGURE 1190**

ARRGLVSAANGSAPSSSSAFCLIAACDLEGGEQREIQKPTGPGAGGSEAGKWDKMVYISNGQVLDSRSQSPWRLS  
LITDFFWGIAEFVVLFFKTLQQDVKKRRSYGNSSDSRYDDGRGPPGNPPRRMGRINHLRGPSPPPMAGG

**FIGURE 1191**

**ATG**TTGGTGCTGTTTGAACGTCGTGGGTTACGCCATCTTTAAGGTTCTAAATGAGAAGAACTTCAAGAGGTT  
GATAGTTTATGGAAAGAATTTGAACTCCAGAGAAAGCAAACAAAATAGTAAAGCTAAAACATTTTGAGAAATTT  
CAGGATACAGCAGAAGCATTAGCAGCATTACAGCTCTGATGGAGGGCAAATCAATAAGCAGCTGAAAAAGTT  
CTGAAGAAAATAGTAAAAGAAGCCCATGAACCGCTGGCAGTAGCTGATGCTAAACTAGGAGGGGTCATAAAGGAA  
AAGCTGAATCTCAGTTGTATCCATAGTCCTGTTGTTAATGAACTTATGAGAGGAATTCGTTACAAATGGATGGA  
TTAATCCCTGGGGTAGAACCACGTGAAATGGCAGCTATGTGCTTGGATTGGCTCACAGCCTGTCTCGATATAGA  
TTGAAGTTTAGCGCTGATAAAGTAGACACAATGATTGTTTCAGGCAATTTCCCTGTTAGATGACTTGGATAAAGAA  
CTAAACAACTACATTATGCGATGTAGAGAATGGTATGGCTGGCATTTCCTTGAATTAGGAAAAATTATTTTCAGAT  
AATTTAACATACTGCAAGTGTTTACAGAAAGTTGGCGATAGGAAGAACTATGCCTCTGCCAAGCTTTCTGAGTTG  
CTGCCAGAAGAAGTTGAAGCAGAAGTGAAAGCAGCTGCAGAGATATCAATGGGAACAGAGGTTTTCAGAAGAAGAT  
ATTTGCAATATTCTGCATCTTTGCACCCAGGTGATTGAAATCTCTGAATATCGAACCCAGCTCTATGAATATCTA  
CAAAATCGAATGATGGCCATTGCACCCAATGTTACAGTCATGGTTGGGGAATTAGTTGGAGCACGGCTTATTGCT  
CATGCAGGTTCTCTTTTAAATTTGGCCAAGCATGCAGCTTCTACCGTTCAGATTCTTGGAGCTGAAAAGGCACTT  
TTCAGAGCCCTCAAATCTAGACGGGATACCCCTAAGTATGGTCTCATTTATCATGCTTCACTCGTGGGCCAGACA  
AGTCCCAAACACAAAGGAAAGATTTCTCGAATGCTGGCAGCCAAAACCGTTTTGGCTATCCGTTATGATGCTTTT  
GGTGAGGATTCAAGTTCTGCAATGGGAGTTGAGAACAGAGCCAAATTAGAGGCCAGGTTGAGAACTTTGGAAGAC  
AGAGGGATAAGAAAAATAAGTGGAACAGGAAAAGCATTAGCAAAAACAGAAAAATATGAACACAAAAGTGAAGTG  
AAGACTTACGATCCTTCTGGTGACTCCACACTTCCAACCTGCTCTAAAAAACGCAAAATAGAACAGGTAGATAAA  
GAGGATGAAATTACTGAAAAGAAAGCCAAAAAGCCAAGATTAAAGTTAAAGTTGAAGAAGAGGAAGAAGAAAAA  
GTGGCAGAAGAAGAAGAACATCTGTGAAGAAGAAGAAAGGGGTAAAAAGAAACACATTAAGGAAGAACCA  
CTTTCTGAGGAAGAACCATGTACCAGCACAGCAATTGCTAGTCCAGAGAAAAAGAAGAAAAAGAAAAAAGAGA  
GAGAACGAGGAT**TAA**

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**FIGURE 1192**

MLVLFETSVGYAIFKVLNEKKLQEVDSLWKEFETPEKANKIVKLKHFKEFQDTAEALAAFTALMEGKINKQLKKV  
LKKIVKEAHEPLAVADAKLGGVIKEKLNLSCTHSPVNVNLMRGIRSQMDGLIPGVEPREMAAMCLGLAHSLSRYR  
LKFSADKVDTMIVQAISLLDDLDKELNNYIMRCREWYGWHFPELGKIIISDNLTCKCLQKVGDRKNYASAKLSEL  
LP EEVEAEVKAAAEISMGTEVSEEDICNIIHLCTQVIEISEYRTQLYEYLQNRMMAIAPNVTVMVGELVGARLIA  
HAGSLNLAKHAASTVQILGAEKALFRALKSRDTPKYGLIYHASLVGQTSPKHKGKISRMLAAKTVLAIRYDAF  
GEDSSSAMGVENRAKLEARLRTLEDRGIRKISGTGKALAKTEKYEKKSEVKTYDPSGDSTLPTCSKKRKIEQVDK  
EDEITEKKAKKAKIKVKVEEEEEKVAEEEEETSVKKKKKRGKKKKHIKEEPLSEEPCTSTAIASPEKKKKKKKKR  
ENED

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**FIGURE 1193**

GGGGGTGGCGGGGACGCGAGTGGCGGCCGCGGGGCCCCGGACAAGGGTCCGCAGAGCTGCAGCCTTCGAGGGCCA  
GCCCTCTCCGAGTCCGGGGCTGGGTCCCACCAAGTGACAAGGCGGCAGCCCCGCGCACACCAAAGAGAAAGCGGCT  
GTGGCGGCAGCGGCAGCCCCAGCC**ATG**CTGTGTTATGTGACGAGGCCGGACGCGGTGCTGATGGAGGTGGAGGTG  
GAGGCGAAAGCCAACGGCGAGGACTGCCTCAACCAGGTGTGCAGGCGACTGGGAATCATAGAAGTTGACTATTTT  
GGACTGCAATTTACGGGTAGCAAAGGTGAAAGTTTATGGCTAAACCTGAGAAACCGGATCTCCCAGCAGATGGAT  
GGGCTAGCCCCCTTACAGGCTTAACTTAGAGTCAAGTTCTTCGTGGAGCCTCATCTCATCTTACAGGAGCAGACT  
AGGCATATCTTTTTCTTGACATCAAGGAGGCCCTCTTGGCAGGCCACCTCTTGTTGCCATAGAGCAGGCAGTG  
GAACTCAGTGCCCTCCTGGCCCAGACCAAGTTTGGAGACTACAACCAGAACTGCCAAGTATACTATGAGGAG  
CTCTGTGCCAAGGAGCTCTCCTCTGCCACCTTGAACAGCATTGTTGCAAAACATAAGGAGTTGGAGGGGACCAGC  
CAGGCTTCAGCTGAATACCAAGTTTTCAGATTGTGTGCGCAATGGAAAACCTATGGCATAGAATGGCATTCTGTG  
CGGGATAGCGAAGGGCAGAGACTGCTCATTGGGGTTGGACCTGAAGGAATCTCAATTTGTAAAGATGACTTTAGC  
CCAATTAATAGGATAGCTTATCCTGTGGTGCAGATGGCCACCCAGTCAGGAAAGAATGTATATTTGACGGTCACC  
AAGGAATCTGGGAACAGCATCGTGCTCTTGTTTTAAATGATCAGCACCAGGGCGGCCAGCGGGCTCTACCGAGCG  
ATAACAGAGACGCACGCATTCTACAGGTGTGACACAGTGACCAGCGCCGTGATGATGCAGTATAGCCGTGACTTG  
AAGGGCCACTTGGCATCTCTGTTTCTGAATGAAACATTAACCTTGGCAAGAAATATGTCTTTGATATTAAAGA  
ACATCAAAGGAGGTGTATGACCATGCCAGGAGGGCTCTGTACAATGCTGGCGTTGTGGACCTCGTTTCAAGAAGC  
AACCAGAGCCCTTCACACTCGCCTCTGAAGTCTCAGAAAGCAGCATGAACTGCAGCAGCTGCGAGGGCCTCAGC  
TGCCAGCAGACCCGGGTGCTGCAGGAGAAGCTACGCAAGCTGAAGGAAGCCATGCTGTGCATGGTGTGCTGCGAG  
GAGGAGATCAACTCCACCTTCTGTCCCTGTGGCCACACTGTGTGCTGTGAGAGCTGCGCCGCCAGCTACAGTCA  
TGTCCCGTCTGCAGGTCGCGTGTGGAGCATGTCCAGCACGTCTATCTGCCAACGCACACCAGTCTTCTCAATCTG  
ACTGTAATCT**TAA**TCGTGTGTGCTTTTGTGGACTTGGCATGTTTCCATGAACTGCACTATTATAAACTATTAAAA  
TGATAGATGTTGGAGAAAGTAATTATTCCAACACCCATCTGCCCATGCGATGTTAAAAAA

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**FIGURE 1194**

MLCYVTRPDAVLMEVEVEAKANGEDCLNQVCRRLGIIIEVDYFGLQFTGSKGESLWLNLRNRISQQMDGLAPYRLK  
LRVKFFVEPHLILQEQRHIFFLHIKEALLAGHLLCSPEQAVELSALLAQTKFGDYNQNTAKYNYEELCAKELSS  
ATLNSIVAKHKELEGTSQASAQVLQIVSAMENYGIEWHSVRDSEGQRLLIGVGPEGISICKDDFSPINRIAYP  
VVQMATQSGKNVYLTVTKESGNSIVLLFKMISTRAASGLYRAITETHAFYRCDTVTSVMMQYSRDLKGHSLF  
LNENINLGKKYVFDIKRTSKEVYDHARRALYNAGVVDLVSRNQSPSHSPLKSSESSMNCSSCEGLSCQQTRVLQ  
EKLRLKEAMLCMVCCEEINSTFCPCGHTVCCESCAAQLQSCPVCRSRVEHVQHLYLPTHTSLLNLTVI

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**FIGURE 1195**

GCGGCCGCGGGGCCCCGGACAAGGGTCCGCGAGAGCTGCAGCCTTCGAGGGCCAGCCCTCTCCGAGTCCGGGGCTG  
GGTCCCACCAGTGACAAGGCGGCAGCCCCGCGCACACCAAAGAGAAGGCGGCTGTGGCGGCAGCGGCAGCCCCAG  
CCATGCTGTGTTATGTGACGAGGCCGGACGCGGTGCTGATGGAGGTGGAGGTGGAGGCGAAAGCCAACGGCGAGG  
ACTGCCTCAACCAGGCATATCTTTTTCTTGACATCAAGGAGGCCCTCTTGGCAGGCCACCTCTTGTTTCCCCA  
GAGCAGGCAGTGGAATCAGTGCCCTCCTGGCCAGACCAAGTTTGGAGACTACAACCAGAACACTGCCAAGTAT  
AACTATGAGGAGCTCTGTGCCAAGGAGCTCTCCTCTGCCACCTTGAACAGCATTGTTGCAAAACATAAGGAGTTG  
GAGGGGACCAGCCAGGCTTCAGCTGAATACCAATTTTGCCAGATTGTGTGCGCAATGCAAAACTATGGCATAGAA  
TGGCATTCTGTGCGGGATAGCGAAGGGCAGAACTGCTCATTGGGGTTGGACCTGAAGGAATCTCAATTTGTAAA  
GATGACTTTAGCCCAATTAATAGGATAGCTTATCCTGTGGTGCAGATGGCCACCCAGTCAGGAAAGAATGTATAT  
TTGACGGTCACCAAGGAATCTGGGAACAGCATCGTGCTCTTGTTTAAAAATGATCAGCACCAGGGCGGCCACGCGG  
CTCTACCGAGCGATAACAGAGACGCACGCATTCTACAGGTGTGACACAGTGACCAGCGCCGTGATGATGCAGTAT  
AGCCGTGACTTGAAGGGCCACTTGGCATCTCTGTTTCTGAATGAAAAACATTAACCTTGGGCCAAGAAATTATGTC  
TTTGATATTTAAAGAAACATCAAAGGAGGTGTATGACCATGCCAGGAGGCTCTGTACAATGCTGGCGTTGTGGAC  
CTCGTTTCAAGAACAACCAGAGCCCTTACACTCGCCTCTGAAGTCCTCAGAAAGCAGCATGAACTGCAGCAGCT  
GCGAGGGCCTCAGCTGCCAGCAGACCCGGGTGCTGCAGGAGAAGCTACGCAAGCTGAAGGAAGCCATGCTGTGCA  
TGGTGTGCTGCGAGGAGGAGATCAACTCCACCTTCTGTCCCTGTGGCCACACTGTGTGCTGTGAGAGCTGCGCCG  
CCCAGCTACAGTCATGTCCCGTCTGCAGGTGCGGTGTGGAGCATGTCCAGCACGTCTATCTGCCAACGCACACCA  
GTCTTCTCAATCTGACTGTAATCTAATCTGTTGTGCTTTTGTGGACTTGGCATGTTTCCATGAACTGCAGTATT  
ATAAACTATTAAATGATAGATTGTGGAGAAAGTAATTATTCCAACACCCATCTGCCATGCGATGTTAAAAA  
AAAAAAGGAAGAAAAATAACACAGCTACTCCTCACTGCAAAAACATATCCATGCGTAGAATCAACAACCTCCAGT  
CATGGGACCAGGAGGAGCTCTGGGACGCAGACACATTCTTGGATGTTGATTTTTTTTTATGATCTAGTAAAGGAA  
TAGGTAAAGTCTTTGATGTCAGTGAAGTGGCAACATAGCCAAAAAGTTGGGTACCTTTTAGGAAATGATGTTGTA  
AGTCTCCTTAATGTATCCTGAGGTAAGTTTCTACTGGCAGCAGATTTTGTAGAATTACTTTTAAGAATTTTCA  
TCTTTTTGTATGGTCATGGAGCTCCAACCATTTTTAATAGGAAAGTCTTTTGTAAAATTGTTGTCGTTTTAATGT  
CATTTCTGTCTTTATAACTTGATCAAGAATGATTGGAAGGCAACAGGTTTACAAATCAATTCTGTGACTTTTAA  
AAAGTTGACAATGTTGTGATTTTAAACAGTGTGGCTAGTAAAAAGCAGCTCACTCAATGTTGGGTGGCTCCCT  
ATTCTTTTACGCTCCCCCTATCCCTACCCACAAGCCTTTTCGATTATAAAATACTACCAATCTTGTTATAAGATT  
ACTGTGGAGTAGTCAAGTACTCCCCGGGCCTTCTGAGCTGGTGGAATATTTTATTTTCACTGAAAACAGAGAGC  
ACTCTCCTTGGGAAGGGAAGCGGCTTGTGAGTGAGAGATGGAGCCTCATGGTGTACAACCTGAGGGTAGTTAAC  
TCATCACTTCTCCAAGCACTCGATCCAGCTTCACCCACTGGTGTGCTTTGCTTGAAGTGTTCAGCCTTTTA  
TAGCCTTACCATAAGTATTTAGATATGGTGTCTTTTCTGTTTTTGGGGGGGAGTTTTGTTGTGTTTTTTTTAA  
GTAAGTGCTTAAGTATTAACCTTGGGTTGTCCCTCTGTATGTTTCGAAGGGGTTTTGGTTCTTTTTGCTTCTGT  
TTTCTTAAACATGTTTTTCACTCCCACTTGGGCATTTTGAAGCTGGTCAGCTAGCAGGTTTTCTGGGATGTCGG  
GAGACCTAGATGACCTTATCGGGTGAATACTAGCTAAGGTAAAGCTAGAAACCTACACTGTCACTTTACTGAGA  
TTTCTGAGTATACTTTTCATATTGCCTTAATGTAGCAGTAATGTGTTTATGCATTTGTTTCTTTGCACAGACATT  
TTGTCAAATATTAAACTCTACTTTTTTATGGCACATATTAGCATATAAGCCTTTATTCCAAGAGGTATTTATTT  
TTTCACTTGTAATAAATAATGTTTCCACGTAAAGAACTCTGTATATCCTAGAGGACTCTGTCTTTTATATTTCG  
GGATAATAAGACTTTAAAGCAAAAAAAAAAAAAAAAAA

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**FIGURE 1196**

MENYGIEWHSVRDSEGQKLLIGVGPEGISICKDDFSPINRIAYPVVQMATQSGKNVYLTVTKESGNSIVLLFKMI  
STRAATRLYRAITETHAFYRCDTVTSVMMQYSRDLKGLASLFLNENINLGPRNYVFDI



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**FIGURE 1197**

AGAAGGGAAGGTAGACATCAGGTTCTCCCTGGAGACTTTTCGTTTTTCATTTACGCTGCGGAAACTGACGTTTTTG  
CCTAACACCCCATGTAATGTAAACGTATAGGCTTGAGTACGTGTCCGGCCGCATGTGTAGTGAACCCTAAAGCTT  
TCCTAATTGTAGTTAGCATCGTCCCTAAGCGGAACGATTTTCCGTGAACATGATTTGTACTTTTCTACGAGCCGT  
ACAGTATACGGAGAAGCTGCACAGGTCCTCGGCAAAGCGATTGCTTTTGCCATACATCGTGTCTTAACAAAGCGTA  
CTTGAAGACTGAGCCAGTTTGAGATGTGGGCTTCAATATCAAAAGAAAACGCTGCGACCTAGATGTATTCTTGG  
AGTCACCCAGAAAACCATCTGGACGCAGGGACCGAGCCCCGAAAAGCAAAGGAGGATGGCAGCAAACAAGTGTC  
TGTGCACAGGAGTCAGAGAGGGGGAACCGCCGTCCCAACATCACAAAAAGTGAAAGAAGCCGGAAGAGATTTTAC  
CTATTTAATAGTGGTGCTTTTTGGAATCAGCATTACAGGTGGCTTGTTTTACACGATTTTCAAAGAACTTTTTC  
TTCATCCAGTCCTAGCAAGATATATGGGAGAGCCTTAGAAAAATGCAGATCACATCCTGAGGTGATCGGTGTCTT  
TGGTGAGTCTGTAAAGGCTATGGGGAGGTGACAAGGCGGGGTCGCCGGCAGCATGTGAGGTTCACTGAATATGT  
AAAAGATGGGCTGAAACACACGTGTGTGAAATTCTACATTGAGGGCTCTGAGCCAGGGAAGCAAGGAACGGTGTA  
TGC GCAAGTGAAAGAGAACCCAGGAAGTGGTGAATATGATTTTCGATATATATTTGTAGAAATTGAATCTTATCC  
TAGAAGAACTATTATCATTGAAGATAATCGATCCCAAGATGATTAATAATCAAGCAAGCAGGTTTCTGATGGATG  
TTGAATGGCGTGGACTCGCTACTCCGTTCTTTCACAGCTGCCTTCCAGAATGTGTTCAAAAGAAAGACAAGAAGGA  
GTGTATGGCTTATAAAGTGAATCTAATACAGTATTTGTTGCATTTAAACAAACTAGACATTTTCTTACGGAAAAA  
TTATGAAATACAGCATATTTTATGTTCTCCCATTGACTCAATCATGACAATATTTCTGCTTTAACACCATCTTTC  
GTGATTAGAAATGTTTGTATTGGAAATGTTACCATGTAAATAAAGGAAATAGATTTTAGTATTGTATTTCATT  
TTATATTATAGAACTGCATAATGTCTGCAGAATAAAATTAAACTAACAATAAAAAAAAAAAAAAAAAA

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**FIGURE 1198**

MICTFLRAVQYTEKLHRSSAKRLLLPYIVLNKAYLKTEPSLRGLQYQKTLRPRCILGVTQKTIWTQGSPRKA  
KEDGSKQVSVHRSQRGGTAVPTSQKVKEAGRDFTYLIVVLFGISITGGLFYTIFKELFSSSSPSKIYGRALEKCR  
SHPEVIGVFGESVKGYGEVTRRGRRQHVRFTYVVDGLKHTCVKFYIEGSEPGKQGTVYAQVKENPGSGEYDFRY  
IFVEIESYPRRTIIIEDNRSQDD

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**FIGURE 1199**

CAGGGCTGGGCGGCGGCGGCGGCGGCGGCTC**ATG**GAACGCCAAGAGGAGTCTCTGTCCGCGCGGCCGGCCCTGGAG  
 ACCGAGGGGCTGCGCTTCCTGCACACCACGGTGGGCTCCCTGCTGGCCACCTATGGCTGGTACATCGTCTTCAGC  
 TGCATCCTTCTCTACGTGGTCTTTCAGAAGCTTTCGCCCCGGCTAAGAGCCTTGAGGCAGAGGCAGCTGGACCGA  
 GCTGCGGCTGCTGTGGAACCTGATGTTGTTGTTAAACGACAAGAAGCTTTAGCAGCTGCTCGACTGAAAATGCAA  
 GAAGAACTAAATGCGCAAGTTGAAAAGCATAAGGAAAACTGAAACAACCTTGAAGAAGAAAAAGGAGACAGAAG  
 ATTGAAATGTGGGACAGCATGCAAGAAGGAAAAAGTTACAAAGGAAATGCAAAGAAGCCCCAGGAGGAAGACAGT  
 CCTGGGCGCTTCCACTTCAICTGTCTGAAACGGAAATCGGACAGAAAGCCTTTGCGGGGAGGAGGTTATAACCCG  
 TTGTCIGGTGAAGGAGGCGGACTTGCTCCTGGAGACCTGGACGCAGAGGCCCGTCATCTGGCGGATGAGGCTAAG  
 AATCTTGTTAGTGTCACTTTTGACATTAGCAAGATGAACCCCT**TAA**CCCTCGATTCAATTGCCTTACGCACGCTTT  
 TCACAGTGACTAGCCAAGGGGAGGTGGGGTTGATTTCTGTTCCTAACCTACACCTGCATATGTCAGGGCTCCAGTC  
 AGCAAAAGGTATAGATGTTGCCTCTAGGCATGAGGTCATTGGTCACATTCTACTTGGAGACAGTGATTGCATTCA  
 TTGATTTTCATGGTTAATTGCTAGTTGGTAGGTAAAGGCCTCTAGATGATTAGCAATCTTGATAAAAGAGGCCTAG  
 TAATGTTCTTTTGAGGTTAGAAATCCTTGCTGCTAGGACAGTCTCTGTGACAGGTTGCGTTGAATGATGTCTTCC  
 TTATCAATGGTGAGCCCACCAGTGAGGATTACTGATGTGGACAGTTGATGGGGTTTGTCTGTATATTTATTTT  
 TATGTACAGAACTTTGTAAAAACGAACTATTTAAAAACAAGAATAACATTTTATGCATCTTTATTCAAGGAGA  
 TTTATGGACTTCAATTTGTCTATCAAACATTAAATAGCTTTTATTACAACCTCCAAAAAAAAAAAAAAAAAAAAA  
 AAAAAAAAAA

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**FIGURE 1200**

MERQEESLSARPALETEGLRFLHTTVGSLLATYGWYIVFSCILLYVVFQKLSARLRALRQRQLDRAAAAVEPDVV  
VKRQEALAAARLKMQEELNAQVEKHKEKLQLEEEKRRQKIEMWDSMQEGKSYKGNAKKPQEEDSPGPSTSSVLK  
RKSDRKPLRGGGYNPLSGEGGGLAPGDLD AEARHLADEAKNLVSVTFDISKMNP

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**FIGURE 1201A**

GAGCCGGTGGCGCAGGTGTCGGGGTCTCGAGCGCCAGCCTGGGAGC**ATG**ATTGTGGACAAGCTGCTGGACGAC  
AGCCGCGGCGGAGAGGGGCTGCGGGACGCGGCGGGCGGCTGCGGCCTCATGACCAGCCCGCTCAACCTGAGCTAC  
TTCTACGGCGCGTCGCCGCCCGCCGCCCGGGCGCCTGCGACGCCAGCTGCTCGGTCTTGGGCCCTCGGCG  
CCCGGCTCGCCCGGCTCCGACTCCTCCGACTTCTCCTCTGCCTCGTTCGGTGTCTCTCTGCGGCGCCGTGGAGTCC  
CGGTGAGAGGGCGGCCGCCGAGCGCCAGCCAGTTGAGCCCCATATGGGGGTGGCAGGCAGCAGAGAGGC  
CCCTTTCAAGGTGTTGGGTAAAGAACTCAGTGAAGGAACTCCTGTTGCACATCCGAAGTCATAAACAGAAGGCT  
TCTGGCCAAGCTGTGGATGATTTTAAGACACAAGGTGTGAACATAGAACAGTTTCAAGAACACAGTA  
TCATACAGTGGGAAAAGGAAAGGGCCCGATTCTGTTGTCTGATGGACCTGCTTGCAAAAGGCCAGCTCTGTTGCAT  
TCCCAATTTTTGACACCACCTCAAACACCAACGCGGGGAGAGCATGGAAGATGTTTCATCTCAATGAACCCAAA  
CAGGAGAGCAGTGTCTGCTTCAGAACATTATCAACATTAAGAATGAATGCAGCCCCGTTTCCCTGAACACA  
GTTCAAGTTAGCTGGCTGAACCCCGTGGTGGTCCCTCAGAGCTCCCCCGCAGAGCAGTGTGAGGACTTCCATGGA  
GGGCAGGTCTTTTCTCCACCTCAGAAATGCCAACCATTTCAAGTCAGGGGCTCCCAACAAATGATAGACCAGGCT  
TCCCTGTACCAGTATTCTCCACAGAACCAGCATGTAGAGCAGCAGCCACACTACACCACAAACCAACTCTGGAA  
TACAGTCTTTTCCCATACCTCCCCAGTCCCCCGCTTATGAACCAAACCTCTTTGATGGTCCAGAATCACAGTTT  
TGCCCAAACCAAAGCTTAGTTTCCCTTCTTGGTGATCAAAGGGAATCTGAGAATATTGCTAATCCCATGCAGACT  
TCCTCCAGTGTTTACGAGCAAAATGATGCTCACTTGCACAGCTTACAGCATGATGCCCAGCAGCGCTGTGAGGCC  
ATGGTGGGGCACGAGATGGCCTCTGACTCTTCAAACACTTCACTGCCATTCTCAAACATGGGAAATCCAATGAAC  
ACCACACAGTTAGGGAAATCACTTTTTTCAGTGGCAGGTGGAGCAGGAAGAAAGCAAATTGGCAAATATTTCCCAA  
GACCAGTTTCTTTCAAAGGATGCAGATGGTGACAGTTTCTTCATATTGCTGTTGCCAAAGGGAGAAGGGCACTT  
TCCTATGTTCTTGAAGAAAGATGAATGCACTTCACATGCTGGATATTAAAGAGCACAATGGACAGAGTGCCTTT  
CAGGTGGCAGTGGCTGCCAATCAGCATCTCATTGTGCAGGATCTGGTGAACATCGGGGCACAGGTGAACACCACA  
GACTGCTGGGGAAGAACACCTCTGCATGTGTGTGCTGAGAAGGGCCACTCCAGGTGCTTCAGGCGATTGAGAAG  
GGAGCAGTGGGAAGTAATCAGTTTGTGGATCTTGAGGCAACTAACTATGATGGCCTGACTCCCTTCACTGTGCA  
GTCATAGCCCAATGCTGTGGTCCATGAAGTCCAGAGAAATCAACAGCCTCATTACCTGAAGTTGAGGAGCTT  
TTACTGAAGAATAAGAGTCTGGTTGATACCATTAAAGTGCCTAATTCAAATGGGAGCAGCGGTGGAAGCGAAGGAT  
CGCAAAGTGGCCGCACAGCCCTGCATTGGCAGCTGAAGAAGCAAATCTGGAACTCATTGCGCTCTTTTTGGAG  
CTGCCAGTTGCCTGTCTTTTGTGAATGCAAAGGCTTACAATGGCAACACTGCCCTCCATGTTGCTGCCAGCTTG  
CAGTATCGGTTGACACAATTAGATGCTGTCCGCTGTTGATGAGGAAGGGAGCAGACCCAAGTACTCGGAACCTG  
GAGAACGAACAGCCAGTGCATTGGTTCCCGATGGCCCTGTGGGAGAACAGATCCGACGTATCTGAAGGGAAAG  
TCCATTCAGCAGAGAGCTCCACCGTAT**TAG**CTCCATTAGCTTGGAGCCTGGCTAGCAACACTCACTGTGAGTTAG  
GCAGTCTGATGTATCTGTACATAGACCATTGCTTATATTGGCAAATGTAAGTTGTTTCTATGAAACAAACAT  
ATTTAGTTCACTATTATATAGTGGGTTATATTAAAGAAAAGAAGAAAAATATCTAATTTCTTGGCAGATTTG  
CATATTTACATCCAGGTATCTGGGATCTAGACATCTGAATTTGATCTCAATGGTAACATTGCCTTCAATTAACA  
GTAGCTTTTGAAGTAAAGGACTTTGATTTGTGGCACAACAAACATTATTAATATAGCTATTGACAGTTTCAAAGC  
AGGTAAATTGTAAATGTTTCTTTAAGAAAAAGCATGTGAAAGGAAAAAGGTAAATACAGCATTGAGGCTTCATTT  
GGCCTTAGTCCCTGGGAGTTACTGGCGTTGGACAGGCTTCAGTCATTGGACTAGATGAAAGGTGTCCATGGTTAG  
AATTTGATCTTTGCAAACTGTATATAATTGTTATTTTTGTCTTAAAAATATTGTACATACTTGGTTGTTAACAT  
GGTCATATTTGAAATGTATAAGTCCATAAAATAGAAAAGAACAAAGTGAATTGTTGCTATTTAAAAAATTTTACA  
ATTCTTACTAAGGAGTTTTTATTGTGTAATCACTAAGTCTTTGTAGATAAAGCAGATGGGGAGTTACGGAGTTGT  
TCCTTTACTGGCTGAAAGATATATTCGAATTGTAAAGATGCTTTTTCTCATGCATTGAAATTATACATTATTTGT  
AGGGAATTGCATGCTTTTTTTTTTTTTTCTCCCGAGACAGGGTCTTGCTCTGGCGCCAGGCTGGAGTACAGTGG  
CATGATCTTGGCTCACTTCAGCCTTGACTTGGGCTCAAGTGATCCTCCTACCTGAGCCTTCTGAGTAACTGGGAC  
TACAGGTGTGCACTCCTCGCCTGGCTAATTTTTTATTTTTTGTACAGGCAGGATCTTGCCACCTTGCCAGGCTG  
GTCTTGAACCTCTGAGCTCATGCCATCTGCCTGCCTTAGTCTCCCAAAATGCTGGGATTACAGGAGTGAGCCACC  
ATGCCCGGCTGGCAGTTGCATGGAAGAGAACACCTCTTTATGGCTTACCCTCTAGAATTTCTAATTTATGTGTTT  
TGTTGAAATTTTTGTTTTTTTACCTTTATTGAAACAACAAAAAGTCAGTATTGAAACATATCTTCTGTTTTCTG  
TTGTCAAATGATGATAATGTGCCATGATGTTTTATATATATCATTGAGAAAAAGTTTTTTTTTAATAACATTC  
TATTAACATTATTTTGCTTGCCGCTGGCATGCCTGAGGAATGTATTTGGCTTTGATTACACACTAAGTTTTTGTA

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**FIGURE 1201B**

ATAAATTGACTCATTAAAAACCTTTTTTTTTTAAAAAAAAAAAAAAAAAGAAATCTCATTAGTGAACCTTATCTTG  
CAGCTGAGTACTTAAATTCTTTTTAAAAAGATACCCTTTGGATTGATCACATTGTTTGACCCAGTATGTCCTTGTA  
GACACGTTAGTTATAATCACCTTGTATCTCTAAATATGGTGTGATATGAACCAGTCCATTACATTGGAAAAACT  
GATGGTTTTAAATAAACTAATTCATAATAAAAAAAAAAAAAAAAAA

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**FIGURE 1202**

MIVDKLLDDSRGGEGLRDAAGGCGLMTSPLNLSYFYGASPPAAAPGACDASCSVLGPSAPGSPGSDSSDFSSASS  
VSSCGAVESRSRGGARAERQPVEPHMGVGRQQRGPFQGV RVKNSVKELLHIRSHKQKASGQAVDDFKTQGVNIE  
QFRELKNTVSYSGKRKGPDSLSDGPACKRPALLHSQFLTPPQTPTPGESMEDVHLNEPKQESSADLLQNIINIKN  
ECSPVSLNTVQVSWLNPVVVPQSSPAEQCQDFHGGQVFSPPQKCQPFQVRGSQQMIDQASLYQYSPQNQHVEQQP  
HYTHKPTLEYSPPFIPPPQSPAYEPNLFDPESQFCPNQSLVSLLDQRESENIANPMQTSSSVQQQND AHLHSFS  
MMPSSACEAMVGHEMASDSSNTSLPFSNMGNPMNTTQLGKSLFQWQVEQEE SKLANISQDQFLSKDADGDTFLHI  
AVAQGRRALSYVLARKMNALHMLDIKEHNGQSAFQVAVAAHQHLIVQDLVNIGAQVNTTDCWGRTPLHVCAEKGH  
SQVLQAIQKGAVGSNQFVDLEATNYDGLTPLHCAVIAHNAVVELQRNQPHSPEVQELLKNKSLVDTIKCLIQ  
MGAAVEAKDRKSGRTALHLAAEEANLELIRLFLELPSCLSFVNAKAYNGNTALHVAASLQYRLTQLDAVRLLMRK  
GADPSTRNLENEQPVHLVPDGPVGEQIRRIKKGKSIQQRAPPY

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**FIGURE 1203A**

GAGCCGGTGGCGCAGGTGTCGGGGTCCTCGAGCGCCAGCCTGGGAGCATGATTGTGGACAAGCTGCTGGACGAC  
AGCCCGGGCGGAGAGGGGCTGCGGGACGCGGCGGGCGGCTGCGGCCTCATGACCAGCCCGCTCAACCTGAGCTAC  
TTCTACGGCGCGTCGCCGCCGCCGCCCGGGCGCCTGCGACGCCAGCTGCTCGGTCTTGGGCCCTCGGCG  
CCCGGCTCGCCCGGCTCCGACTCCTCCGACTTCTCCTCTGCCTCGTCGGTGTCTCCTGCGGCGCCGTGGAGTCC  
CGGTGAGAGGGCGGCGCCCGCGCCGAGCGCCAGCCAGTTGAGCCCCATATGGGGGTGGCAGGCAGCAGAGAGGC  
CCCTTTCAAGGTGTTGCGGTAAAGAACTCAGTGAAGGAACTCCTGTTGCACATCCGAAGTCATAAACAGAAGGCT  
TCTGGCCAAGCTGTGGATGATTTTAAGACACAAGGTGTGAACATAGAACAGTTCAGAGAATTGAAGAACACAGTA  
TCATACAGTGGGAAAAGGAAAGGGCCCGATTCTGTTGTCTGATGGACCTGCTTGCAAAGGCCAGCTCTGTTGCAT  
TCCCAATTTTTGACACCACCTCAAACACCAACGCCCCGGGGAGAGCATGGAAGATGTTTATCTCAATGAACCCAAA  
CAGGAGAGCAGTGTGATCTGCTTCAGAACATTATCAACATTAAGAATGAATGCAGCCCCGTTTCCCTGAACACA  
GTTCAAGTTAGCTGGCTGAACCCCGTGGTGGTCCCTCAGAGCTCCCCCGCAGAGCAGTGTGAGGACTTCCATGGA  
GGGCAGGTCTTTTCTCCACCTCAGAAATGCCAACCATTTCAAGTCAGGGGCTCCCAACAAATGATAGACCAGGCT  
TCCCTGTACCAGTATTCTCCACAGAACCAGCATGTAGAGCAGCAGCCACACTACACCACAAACCAACTCTGGAA  
TACAGTCTTTTCCCATACCTCCCCAGTCCCCCGCTTATGAACCAAACCTCTTTGATGGTCCAGAATCACAGTTT  
TGCCCAAACCAAAGCTTAGTTTCCCTTCTTGGTGATCAAAGGGAATCTGAGAATATTGCTAATCCCATGCAGACT  
TCCTCCAGTGTTCAGCAGCAAATGATGCTCACTTGCACAGCTTCAGCATGATGCCAGCAGCGCCTGTGAGGCC  
ATGGTGGGGCACGAGATGGCCTCTGACTCTTCAAACACTTCACTGCCATTCTCAAACATGGGAAATCCAATGAAC  
ACCACACAGTTAGGGAAATCACTTTTTTCACTGGCAGGTGGAGCAGGAAGAAAGCAAATTGGCAAATATTTCCCAA  
GACCAGTTTCTTCAAAGGATGCAGATGGTGACACGTTTCTTCATATTGCTGTTGCCAAAGGGAGAAGGGCACTT  
TCCTATGTTCTTGCAAGAAAGATGAATGCACTTCACATGCTGGATATTAAAGAGCACAATGGACAGAGTGCCTTT  
CAGGTGGCAGTGGCTGCCAATCAGCATCTCATTGTGCAGGATCTGGTGAACATCGGGGCACAGGTGAACACCACA  
GACTGCTGGGGAAGAACACCTCTGCATGTGTGTGCTGAGAAGGGCCACTCCCAGGTGCTTCAGGCGATTGAGAAG  
GGAGCAGTGGGAAGTAATCAGTTTGTGGATCTTGAGGCAACTAACTATGATGGCCTGACTCCCCTTCACTGTGCA  
GTCATAGCCCAATGCTGTGGTCCATGAACCTCAGAGAAATCAACAGCCTCATTACCTGAAGTTGAGGAGCTT  
TTACTGAAGAATAAGAGTCTGGTTGATACCATTAAAGTGCCTAATTCAAATGGGAGCAGCGGTGGAAGCGAAGGAT  
CGCAAAGTGGCCGCACAGCCCTGCATTTGGCAGCTGAAGAAGCAAATCTGGAACCTATTGCGCTCTTTTTGGAG  
CTGCCCAGTTGCCTGTCTTTTGTGAATGCAAAGGCTTACAATGGCAACACTGCCCTCCATGTTGCTGCCAGCTTG  
CAGTATCGGTTGACACAATTAGATGCTGTCCGCTGTTGATGAGGAAGGGAGCAGACCCAAGTACTCGGAACCTG  
GAGAACGAACAGCCAGTGCATTTGGTTCCCGATGGCCCTGTGGGAGAACAGATCCGACGTATCCTGAAGGGAAAG  
TCCATTCAGCAGAGAGCTCCACCGTATTAGCTCCATTAGCTTGGAGCCTGGCTAGCAACACTCACTGTGAGTTAG  
GCAGTCTGATGTATCTGTACATAGACCAATTGCTTATATTGGCAAATGTAAGTTGTTTCTATGAAACAAACAT  
ATTTAGTTCACTATTATATAGTGGGTATATTTAAAGAAAAGAAAGAAAATATCTAATTTCTCTTGGCAGATTG  
CATATTTATACCCAGGTATCTGGGATCTAGACATCTGAATTTGATCTCAATGGTAACATTGCCTTCAATTAACA  
GTAGCTTTTGTAGTAGGAAAGGACTTTGATTTGTGGCACAAAACATTATTAATATAGCTATTGACAGTTTCAAAGC  
AGGTAAATTGTAAATGTTTCTTTAAGAAAAAGCATGTGAAAGGAAAAAGGTAAATACAGCATTGAGGCTTCATTT  
GGCCTTAGTCCCTGGGAGTTACTGGCGTTGGACAGGCTTCAGTCATTGGACTAGATGAAAGGTGTCCATGGTTAG  
AATTTGATCTTTGCAAACCTGTATATAATTGTTATTTTTGTCTTAAAAATATTGTACATACTTGGTTGTTAACA  
GGTCATATTTGAAATGTATAAGTCCATAAAATAGAAAAGAACAAAGTGAATTGTTGCTATTTAAAAAATTTTACA  
ATTCTTACTAAGGAGTTTTTATTGTGTAATCACTAAGTCTTTGTAGATAAAGCAGATGGGGAGTTACGGAGTTGT  
TCCTTTACTGGCTGAAAGATATATTCGAATTGTAAAGATGCTTTTTCTCATGCATTGAAATTATACATTATTTGT  
AGGGAATTGCATGCTTTTTTTTTTTTTTCTCCCGAGACAGGGTCTTGCTCTGGCGCCAGGCTGGAGTACAGTGG  
CATGATCTTGGCTCACTTCAGCCTTGACTTGGGCTCAAGTGATCCTCCTACCTGAGCCTTCTGAGTAACTGGGAC  
TACAGGTGTGCACTCCTCGCCTGGCTAATTTTTTATTTTTTGTACAGGCAGGATCTTGCCACCTTGCCAGGCTG  
GTCTTGAACCTCCTGAGCTCATGCCATCTGCCTGCCTTAGTCTCCCAAAATGCTGGGATTACAGGAGTGAGCCACC  
ATGCCCCGCTGGCAGTTGCATGGAAGAGAACACCTCTTTATGGCTTACCCTCTAGAATTTCTAATTTATGTGTTT  
TGTTGAAATTTTTGTTTTTTTTTACCTTTATTGAAACAACAAAAAGTCAGTATTGAAACATATCTTCTGTTTTCTG  
TTGTCAAATGATGATAATGTGCCATGATGTTTTATATATATCATTCAGAAAAAGTTTTATTTTTTAATAACATTC  
TATTAACATTATTTGCTTGCCGCTGGCATGCCTGAGGAATGTATTTGGCTTTGATTACACACTAAGTTTTTGTGA



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**FIGURE 1203B**

ATAAATTTGACTCATTAAAAACCTTTTTTTTTTAAAAAAAAAAAAAAAAAGAAATCTCATTAGTGAACCTTATCTTTG  
CAGCTGAGTACTTAAATTCTTTTTAAAAAGATACCCTTTGGATTGATCACATTGTTTGACCCAGTATGTCTTGTA  
GACACGTTAGTTATAATCACCTTGTATCTCTAAATATGGTGTGATATGAACCAGTCCATTACATTGGAAAAACT  
GATGGTTTTAAATAAACTAATTCATAATAAAAAAAAAAAAAAAAAA

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**FIGURE 1204**

MIVDKLLDD\$RGGEGLRDAAGGCGLMTSPLNLSYFYGASPPAAAPGACDASCSVLGPSAPGSPGSDSSDFSSASS  
VSSCGAVESRSRGGARAERQPV EPHMGVGRQQRGPFQGV RVKNSVKELLHIRSHKQKASQAVDDFKTQGVNIE  
QFRELKNTVSYSGKRKGPDSLSDGPACKRPALLHSQFLTPPQTPTPGESMEDVHLNEPKQESSADLLQNIINIKN  
ECSPVSLNTVQVSWLNPVVVPQSSPAEQCQDFHGGQVFSPPQKCQPFQVRGSQQMIDQASLYQYSPQNQHVEQQP  
HYTHKPTLEYSFPFIPPQSPAYEPNLF DGPEQFCPNQSLVSL LGDQRESENIANPMQTSSSVQQQND AHLHSFS  
MMPSSACEAMVGHEMASDSSNTSLPFSNMGNPMNTTQLGKSLFQWQVEQEESKLANISQDQFLSKDADGD TFLHI  
AVAQGRRALSYVLARKMNALHMLDIKEHNGQSAFQVAVAAHQHLIVQDLVNIGA QVNTTDCWGRTP LHVCAEKGH  
SQVLQAIQKGAVGSNQFVDLEATNYDGLTPLHCAVIAHNAVVELQRNQPHSPEVQELLLKNKSLVDTIKCLIQ  
MGA AVEAKDRKSGRTALHLAAEEANLELIRLFLELP SCLSFVNAKAYNGNTALHVAASLQYRLTQLDAVRLLMRK  
GADPSTRNLENEQPVHLVPDGPVGEQIRRIKKGKSIQQRAPPY

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**FIGURE 1205**

GGCCGCGCGTCCCAGAGAGCCAGCCCCGGCCGCGCTCGCGGGGAAGTGCCGCCTGGTGGGGTCACGGCGCCTGAA  
GCCCACGTGCGCCGCCGAGCCGAGGTGGCTCGAGCGCGGCGGCTGACAGCACAGCCCGCTGAGCTGCCTCCC  
GCGCTCCTCCCCGAGGAAAGGATTTTGATTTCAAAGAAAGGAAGGAAGGAAGGACAACCTCCCAGCTTCCCCGTCC  
CGCCCTCCCCGCTCCGAGGGCCGCGCCAGGCCATGCCAAGAAGGCGGCGGCGGCGGCGGAACCAGCAGAAGGGAC  
TTTCCTGGCAGCCCCGGCGACGAGGAGCGCGGACAGTGAGTTTGCTCTGCCCCGGTTCATGGTTCCTGCAAGCCCT  
CTAGGAGGCCGAAAGCTGCAGCCCCCTCCCCCTTGCCCCGAAGAGCCTTCCGCGTTCTCTCGCCCTCGGGCCACCC  
CGCGCCGCCCCGGGCTCCCGCCGCCGACGCCAGTGCCCTCTGCCCCGCGGCGGTGGATGGCATGATGGTGCGGGGA  
AGGCACCGCGGCCTTGGCCAGCTGAGTCGCGACGGCCGCCGGGGCGGCGGCAGTGCCCGCGGCAGCGGCGGTGGT  
AGCGGGCTCCCCAGCGGCATGCCAGTGCCCCCGGGCGCGATGCTAGCGGCAGCGCCGGGAAGCCCACTGGCGA  
GGCGGCTTCTCCGGCTCCTGCGAGCGCCATCGGCGGGGCCAGCTCGCAGCCGCGGAAGAGGCTGGTATCCGTCTG  
CGACCACTGCAAGGGCAAGATGCAGCTGGTGGCTGACCTGCTGCTGCTGTCGAGCGAGGCGCGGCCCGTGTCTT  
CGAGGGCCCCGCCTCCTCTGGTGCCGGCGCCGAGTCCTTCGAGCAGTGCCGGGACACCATCATCGCGCGCACCAA  
GGGGCTCTCCATCCTCACCCACGACGTGCAGAGCCAGCTCAACATGGGCCGCTTCGGGGAGGCGGGGGACAGCCT  
GGTGGAGCTGGGCGACCTGGTGGTGTGCTGACCGAGTGCTCGGGCCACGCGGCCTATCTGGCCGCTGTGGCCAC  
GCCGGGCGCCAGCCCGCGCAGCCGGGCCTGGTGGACCGCTACCGCGTGACGCGATGCCGCCACGAGGTGGAGCA  
GGGTTGCGCCGTGCTGCGCGCCACGCCGCTGGCCGACATGACGCCGCAGCTGCTGCTGGAGGTGTGCGAGGGCCT  
GTCGCGCAACCTCAAGTTCCTGACGGACGCGTGCGCCCTGGCCAGTGACAAGTCACGGGACCGCTTTTCGCGGGA  
GCAGTTCAAGCTGGGCGTCAAGTGATGAGCACCAGCGCGTCGGCGCTGCTGGCCTGCGTGCGCGAGGTGAAGGT  
GGCGCCAGTGAGCTGGCGCGCAGCCGCTGTGCGCTCTTCAGCGGGCCCCTGGTGCAGGCAGTGAGCGCCCTGGT  
AGGCTTCGCCACCGAGCCGAGTTCCTGGGTGCGCGGCAGCTGTGAGCGCCAGGGCAAGGCGGTGCAGACCGC  
CATCCTGGGCGGCGCCATGAGCGTGGTGTGCGCCTGCGTGCTCCTGACCCAGTGCCCTCAGGGATCTGGCGCAGCA  
CCCCGACGGGGGCGCCAAGATGTCGGACCACAGGGAGAGGCTGAGGAACTCGGCCTGCGCCGTGTCTGAAGGCTG  
CACCTGCTATCTCAGGCTTTAAGGGAGAGGTCTTCGCCCAGGACTTTACCGCCAGTGAATTCCAATTCTGTGAA  
**TTAG**CACCCACCCCCATACCCCCTTCTTCCACCCCCAGACTAAAGGAAGATACTTACTCTCTGCCCCCTCTCCATT  
TATACCAAAGAAATCATAGGTGAAACCCCTACCCTCCCCAACGTAAATGCTCGAGAGGAATCTTCCACAAGGC  
AGGGCCATGCACGCAACCTGCACACGCACTTGAGGGGCCAGGTGTCTCTCCACCAGCCCCCATGCAGTAGGGAC  
TGGAAGATATGTCATCTGCTGGTTGTGTTATCACTCCACCCCCCTACCCAGCCCGTCTTCCGGAATTTCTCAAC  
TAAATTTTATTATTGGGCAGGAAGGAGGTGATGGGTTTATTTTATTTTGTTTTTTGTGTTTTTAATTAAAGAA  
AGGTTACCTCAGTTTTCACTCCTTAGACAIGGATGTAGCTACCTTTTTTTGTATGTCTTTTTTTTTTAAGCAAT  
CGTGTTGAATTAGAGTATACTTGGTGAGGAAAGAGTATGAATTTGCCATGTGATTTGCAAATGGGGGGAAGCTA  
CTGTGAGCGTGTGTTTTTTAATTTACACTATAGAGTGATTTTTTTTTTCCCCAACGTCAAGTTTTTACCTTGCAT  
GTACTGGAGTATTTATTTTATCTATTAAAATGTTATGTTTCTCAGAAAAAACCTCGTGGCGAATCTTGGCCTC  
GAGGGCCAAAT

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**FIGURE 1206**

MASGSAGKPTGEAASPAPASAIGGASSQPRKRLVSVCDHCKGKMQLVADLLLLSSEARPVLFEGPASSGAGAESF  
EQCRDTIIARTKGLSILTHDVQSQLNMGRFGEAGDSLVELGDLVVSLTECSAHAAYLAAVATPGAQPAQPGLVDR  
YRVTRCRHEVEQGCAVLRATPLADMTPQLLLEVSQGLSRNLKFLTDACALASDKSRDRFSREQFKLGVKCMSTSA  
SALLACVREVKVAPSELARSRCALFSGPLVQAVSALVGFATEPQFLGRAAAVSAEGKAVQTAILGGAMSVVSACV  
LLTQCLRDLAQHDPDGGAKMSDHRERLRNSACAVSEGCTLLSQALRERSSPRTLPPVNSNSVN

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**FIGURE 1207**

GGCACGAGGGCTGCTTGCACTCTGAATTTGGGCTATTTCAGGTAGTGTGCTCAAAGTTGAAACCGCATACAGCACA  
 ACTCAAGTTTGCATCAGACTGGGAAGCGAACTTAAGCCAGCGGTGCGTGGCCCAGGAGTGGGAAAGGAAATGGAT  
 GCCTGAAGTGGAAGAGGTGGTGCAGAGGGGGCACCGCCCATGCTGCCCTGCTTCCAAGTCTGCGCATAGGGGGC  
 GGCAGGGGCGGTGATCTCTACACCTTCCACCCCCCGCGGGCTGGCTGCACCTATCGCTTGGGCCACAGGGCC  
 GACCTGTGTGATGTGGCCCTGCGGCCCCAGCAGGAGCCTGGCCTCATCTCTGGGATCCACGCCGAAGTGCATGCC  
 GAGCCCCGGGGTGATGACTGGAGGGTCAGCCTGGAAGACCACAGCAGCCAAGGTACTTTGGTCAATAATGTCCGA  
 CTCCAAGAGGTCACAGGCTGGAATTGAGTGATGGAGACCTCCTGACCTTTGGCCCTGAAGGGCCCCCAGGAACC  
 AGCCCCCTCGGAGTTCTACTTCATGTTCCAACAAGTACGAGTCAAGCCTCAGGACTTTGCTGCCATTACCATCCCA  
 CGGTCTAGGGGAGAAGCCCCGGGTGGGGCTGGTTTCCGGCCTATGCTGCCCTCCCAGGGGGCTCCACAGCGGCCT  
 CTCAGCACCTTCTCCCCTGCCCCCAAGGCCACACTGATCCTAAACTCCATAGGCAGCCTCAGCAAGCTCCGGCCC  
 CAGCCCCCTCACCTTCTCCCCTAGTTGGGGTGGACCAAAGAGCCTGCCGTGTTCCCGCCCCACCTGGGGAAGTGGGG  
 ACCACGCCTTCTGCTCCACCCCAACGCAATCGGAGGAAATCTGTTACCGAGTGTGGCGGAACTGGATGATGAG  
 AGTGAGCCTCTTGAGAACCCGCCACCGGTCTTATGGAGCCCAGGAAGAACTCCGTGTAGACAAAGCCCCACTG  
 ACTCCCCTGGAATCGACGTGGCCGTCTCGGAAGTACCCAGTGAGCGCTCCCATGGCTCCCCCTGCAGTTGGG  
 GCGGGGAGCCCTGTGCAGCTCCTTGTTGCTGCCTGCCCCAGGAAGAGACAGTGGCCTGGGTTTCACTGTGATGGC  
 TGTGACGTCTGGTTCCATGTGGCCTGTGTTGGCTGCAGCATCCAGGCTGCCAGGGAGGCCGACTTCCGATGCCCCA  
 GGGTGCCGGGCTGGCATTACAGACCTAAGGTCCACCGCCAAGGCACCATCGGACACACCTGCCCATGAGTAGACAC  
 AGCAGCGAGCAAATAGGTCTGATAAATACCCCCCTTCCCTTCCCTCCCCAGGAGGGAATGACTACAGGGAAGAAG  
 GATGGATTGATGTGGACTCATTAGGGCCTGGAGCAGACCTGGTGGCCAAGACAGAAGAGATGGTTTCTGCCA  
 AAGATATTGCCACCTCCAGGAAATTGCCAGTGAGCTGGAAGTCCCCTATTACAAGCCATAAGGCCATGTTGCC  
 ATGGACACCAGAATATCTGTAGTCAGAGCACCTATCAGTTGCAAAAGCCATGCCTGCAACCGATGGAAAATGTAA  
 GAGGGAGTTCTTAAGTTCTTGATGGCATCACCAAGGCATTCTGGGAAAACCTAGGGCCTGGCCCCAAAACCTC  
 CCTACTCTGTGGCTAGTCCTGCTGCCAACAAAATCGTAGCGACCTGGCTTTTACAGCTTTGCTTTTATTTCCAA  
 GTCAAGGACAAGCCGCTTCACTCCTGGGCATTTACTCTTCTTGTGGGTCTGTGATATTCTTTGCTTTCCAG  
 GGAGAATGTGCTTGGCAAGGTCTGGAGAATAATTGAGAATCTTAGGGGAAGGGGAGAGATGGAAATACAAACCT  
 GCTTACTGGAAGGTGCAAATATATGGGTTGAGCTGGAGGTAGGAATACAGGTAATTAAGGTTTCTGGTTTAAGG  
 GAAAACAGATCTATTGCCATTTAAATAAGGTAAGTGGGATTTGGTTAAGTTCACAAAGTTAGCAGAAGATTTATT  
 TACAGGCTTCACCTGTACTGTGAGGGCAAGAGAAAGCCTGGTAAACCAGCTACAGCAGTTTACCAGTGTGATGGC  
 TGTGACACAGCTCCACTCCACGGGTGGACACAGCAGAGGGCAACTGGGCTGGCCTGGTTTCACTGTGAATCAAACC  
 GCTTAACCCACACATGGTACATGTGATTTTCTTTTGTGAGCCTTACACCAAGCCAAACTATTGTCAAAGCATCAT  
 TTCTATAGAAATAAAGCCTTATCTTGACCTGTTCTATTAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1208**

MLPCFQLLRIGGGRGGDLYTFHPPAGAGCTYRLGHRADLCDVALRPQQEPGLISGIHAELHAEPRGDDWRVSLED  
HSSQGTLVNNVRLPRGHRLELSGDLLTFGPEGPPGTSPSEFYFMFQQVRVKPQDFAAITIPRSRGEARVGAGFR  
PMLPSQGAPQRPLSTFSPAPKATLILNSIGSLSKLRPQPLTFSPSWGGPKSLPVPAPPGEVGTTPSAPPQRNRRK  
SVHRVLAELDDSEPLENPPPVLMPEPRKKLRVDKAPLTPTGNRRGRPRKYPVSAPMAPPAVGGGEPCAAPCCCLP  
QEETVAWVQCDGCDVWFHVACVGCSIQAAREADFRCPGCRAGIQT

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**FIGURE 1209**

GGCAGCCGTCTGTGCCACCCAGAGCCGGCGGGCCGCTAGGTCCCCGGAGACCCTGCT**ATG**GTGCGTGCGGGCGCC  
GTGGGGGCTCATCTCCCCGCGTCCGGCTTGATATCTTCGGGGACCTGAAGAAGATGAACAAGCGCCAGCTCTAT  
TACCAGGTTTTAAACTTCGCCATGATCGTGTCTTCTGCACTCATGATATGGAAAGGCTTGATCGTGCTCACAGGC  
AGTGAGAGCCCCATCGTGGTGGTGCTGAGTGGCAGTATGGAGCCGGCCTTTCACAGAGGAGACCTCCTGTTCCCTC  
ACAAATTTCCGGGAAGACCCAATCAGAGCTGGTGAAATAGTTGTTTTTAAAGTTGAAGGACGAGACATTCCAATA  
GTTACAGAGTAATCAAAGTTCATGAAAAAGATAATGGAGACATCAAATTTCTGACTAAAGGAGATAATAATGAA  
GTTGATGATAGAGGCTTGTAACAAGAAGGCCAGAACTGGCTGGAAAAGAAGGACGTGGTGGGAAGAGCAAGAGGG  
TTTTTACCATATGTTGGTATGGTCACCATAATAATGAATGACTATCCAAAATTCAAGTATGCTCTTTTGGCTGTA  
ATGGGTGCATATGTGTTACTAAAACGTGAATCC**TAA**AATGAGAAGCAGTTCCTGGGACCAGATTGAAATGAATTC  
TGTTGAAAAAGAGAAAACTAATATATTTGAGATGTTCCATTTTCTGTATAAAAGGGAACAGTGTGGAGATGTTT  
TTGTCTTGTCCAAATAAAAGATTCACCAGTAAAAAAAAAAAAA

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**FIGURE 1210**

MVRAGAVGAHLPASGLDIFGDLKKMNKRQLYYQVLNFAMIVSSALMIWKGLIVLTGSESPIVVVLSGSMEPAFHR  
GDLLFLTINFREDPIRAGEIVVFKVEGRDIPIVHRVIKVHEKDNGDIKFLTKGDNNEVDDRGLYKEGQNWLEKKDV  
VGRARGFLPYVGMVTIIMNDYPKFKYALLAVMGAYVLLKRES



## FIGURE 1211

TCCCTGTCTGCGCCCGCGCGCCCGGGAGCCTACCCAGCACGCGCTCCGCGCCCACTGGTTCCCTCCAGCCGCC  
GCCGTCCAGCCGAGTCCCCACTCCGGAGTCGCCGCTGCCGCGGGGACATGGTCCTCTGCGTTCAGGGGTGAGCAC  
CCCCTTGTAAGCTCAGGGCTACTGTTGGGTGTCAGGGAACAAAGTTTTAGACTGCTGCGCTCCAAAGCGGGCACA  
CACATGTACCTAGAACACACCAGCCACTGTCCCCACCATGATGATGACACAGCCATGACACACCCCTGCCCAGA  
CCTCGTCTTTGCTGGCTGTGGAGCGGACTGGGCAGCGGCCCTGTGGGCCCCGTCCCTGGAAGTGCCCAAGCCA  
GTCATGCAGCCCTTGCCCTGCTGGGGCCTTCCTCGAGGAGGTGGCAGAGGGTACCCAGCCAGACAGAGAGTGAG  
CCAAAGGTGCTGGACCCAGAGGAGGATCTGCTGTGCATAGCCAAGACCTTCTCCTACCTTCGGGAATCTGGCTGG  
TATTGGGGTTCCATTACGGCCAGCGAGGCCCGACAACACCTGCAGAAGATGCCAGAAGGCACGTTCTTAGTACGT  
GACAGCACGCACCCAGCTACCTGTTACGCTGTGAGTGAACCACTCGTGGCCCCACCAATGTACGCATTGAG  
TATGCCGACTCCAGCTTCCGTCTGGACTCCAAGTCTGTCCAGGCCACGCATCCTGGCCTTTCCGGATGTGGTC  
AGCCTTGTGCAGCACTATGTGGCCTCCTGCACTGCTGATACCCGAAGCGACAGCCCCGATCCTGCTCCACCCCG  
GCCCTGCCTATGCCTAAGGAGGATGCGCCTAGTGACCCAGCACTGCCTGCTCCTCCACCAGCCACTGCTGTACAC  
CTAAACTGGTGCAGCCCTTTGTACGCAGAAGCAGTGCCCGCAGCCTGCAACACCTGTGCCGCTTGTTCATCAAC  
CGTCTGGTGGCCGACGTGGACTGCCTGCCACTGCCCCGGCGCATGGCCGACTACCTCCGACAGTACCCCTTCCAG  
CTCTGACTGTACGGGGCAATCTGCCACCCTCACCCAGTCGCACCCTGGAGGGGACATCAGCCCCAGCTGGACTT  
GGGCCCCCACTGTCCCTCCTCCAGGCATCCTGGTGCCTGCATACCTCTGGCAGCTGGCCCAGGAAGAGCCAGCAA  
GAGCAAGGCATGGGAGAGGGGAGGTGTCACACAACCTGGAGGTAAAATGCCCCAGGCCGCATGTGGCTTCATTA  
TACTGAGCCATGTGTGAGAGGATGGGAGACAGGCAGGACCTTGTCTCACCTGTGGGCTGGGCCCCAACCTCCAC  
TCGCTTGCCTGCCCTGGCCACCTGAACTGTATGGGCACTCTCAGCCCTGGTTTTTCAATCCCCAGGGTCGGTAGG  
ACCCCTACTGGCAGCCAGCCTCTGTTTCTGGGAGGATGACATGCAGAGGAAGTGAATCGACAGTGAAGTAGTAC  
CCCTTGTGAGGGGTAAGCCAGGCTAGGGGACTGCACAATTATACACTATTTATTTATTTATTTCTCCTTGGGGTT  
GGTGTGAGGGGCAAACCAACCCACCTCTATGCCCTGAGCCCTGGTAGTCCAAAGACCCCACTCTGCCCTGGCT  
TCTCTGGTTCTTCCCTGTGGAAAGCCCATCCTGAGACATCTTGCTGGAACCAAGGCAATCCTGGATGTCTGGTA  
CTGACCCACCCCTCTGTGAATGTGTCCACTCTCTTCTGCCCCAGCCATATTTGGGGAGGATGGACAACCTACAAT  
AGGTAAGAAAAATGCAGCCGGAGCCTCAGTCCCCAGCAGAGCCTGTGTCTCACCCCTCACAGGACAGAGCTGTAT  
CTGCATAAAGCTGGTCTCACTGTGGCGCAGGCCCGGGGGGAGTGCCTGTGCTGTGAGGAAAAGGGGGTGCTGGT  
TTGAGGGCCACCACTGCAGTTCTGCTAGGTCTGCTTCCCTGCCAGGAAGGTGCCTGCACATGAAAGGAGAGAAAT  
ACACGTCTGATAAGACTTCATGAAATAATAATTATAGCAAAGAACAGTTTGGTGGTCTTTTCTCTTCCACTGATT  
TTTCTGTAATGAACATTATACCTTTATTACCTCTTTATTTTATTACCTCTATAATAAAATGATACCTT

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**FIGURE 1212**

MDTFLPRPRLLAVERTGQRPLWAPSLELPKPMQPLPAGAFLEEEVAEGTPAQTESEPKVLDPEEDLLCIAKTFS  
YLRESGWYWGSITASEARQHLQKMPEGTFLVRDSTHPSYLFTLSVKTTTRGPTNVRIEYADSSFRLDSNCLSRPRI  
LAFPDVVS LVQHYVASCTADTRSDSPDPAPTPALPMPKEDAPSDPALPAPPATAVHLKLVQPFVRRSSARSLQH  
LCRLVINRLVADVDCPLPRRMADYLRQYPFQL

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**FIGURE 1213A**

ATCTGCTGGCATTTCCTGCAGCCAGGCCCGCGCCGCGCAGTGAGCCCCCGCGCGCCCGGCCGGCCCGGAGCACCG  
AGCTCGCGGCACGGTAGGAGAAGCCCCGAGCGCCACAGC**ATGA**AGGAGGAGGCCTTCCTCCGGCGCCGCTTCT  
CCCTGTGTCCACCTTCCTCCACCCCTCAGAAAGTCGACCCCCGGAAGCTCACCCGGAACCTTGCTCCTCAGCGGAG  
ACAATGAGCTCTACCCACTCAGCCCAGGGAAGGACATGGAGCCCAACGGCCCGTCGCTGCCAGGGATGAAGGGC  
CCCCGACCCCAAGCTCTGCCACGAAGGTGCCACCGGCAGAGTACAGGCTGTGCAACGGGTGAGACAAGGAATGTG  
TGTCCCCCACCAGGTCACCAAGAAGGAGACTCTCAAGGCGCAGAAGGAGAACTACCGGCAGGAGAAGAAGC  
GCGCCACACGGCAGCTGCTCAGCGCTCTGACAGACCCAGCGTGGTCATCATGGCTGACAGCCTGAAGATCCGCG  
GCACCTGAAGAGCTGGACCAAGCTGTGGTGCGTGCTGAAGCCGGGGGTGCTGCTCATCTACAAGACGCCCAAGG  
TGGGCCAGTGGGTGGGCACGGTGCTGCTGCACTGCTGCGAGCTCATCGAGCGGCCCTCCAAGAAGGACGGCTTCT  
GCTTCAAGCTCTTCCACCCGCTGGATCAGTCCGTCTGGGCCGTGAAGGGCCCCAAAGGTGAGAGCGTGGGCTCCA  
TCACACAGCCCCTGCCAGCAGCTACCTGATCTTCAGGGCCGCTCCGAGTCAGATGGTCGCTGCTGGCTGGACG  
CCCTGGAGCTGGCCCTGCGCTGCTCTAGCCTACTGAGACTGGGCACCTGCAAGCCGGGGCCGAGACGGGGAGCCAG  
GGACCTCGCCAGACGCATCACCTCATCGCTCTGTGGGCTGCCAGCCTCAGCCACCGTCCACCCAGACCAAGACC  
TGTTCCCACTGAACGGGTCTTCCCTGGAGAACGATGCATTCTCAGACAAGTCGGAGAGAGAGAACCCTGAGGAGT  
CAGATACCGAGACCCAGGACCATAGCCGGAAGACGGAGAGTGGCAGCGACCAGTCAGAGACCCCTGGGGCCCCGG  
TGCGGAGAGGGACCACCTATGTGGAGCAGGTCCAGGAGGAGCTGGGGGAGCTGGGCGAGGCGTCCCAGGTGGAGA  
CAGTGTGAGAGGAGAACAAGAGTCTGATGTGGACCCTGCTGAAGCAGCTACGGCCAGGCATGGACCTGTCCCGCG  
TGGTGCTACCCACGTTTCGTACTGGAGCCGCGCTCCTTCTGAACAAGCTCTCCGACTACTACTACCACGCAGACC  
TGCTCTCCAGGGCTGCGGTGGAGGAGGATGCCTACAGCCGCATGAAGCTGGTGCTGCGGTGGTACCTGTCTGGCT  
TCTACAAGAAGCCCAAGGAATCAAGAAGCCGTACAACCCCATCCTGGGGGAGACCTTCCGCTGCTGCTGGTTCC  
ACCCGCAGACTGACAGCCGCACATTCTACATAGCAGAGCAGGTGTCCACCACCCGCCCCTGTCTGCCTTCCACG  
TCAGCAACCGGAAGGACGGCTTCTGCATCAGTGGCAGCATCACAGCCAAGTCCAGGTTTTATGGGAACCTCGCTGT  
CGGCGCTGCTGGACGGCAAAGCCACGCTCACCTTCTGAACCGAGCCGAGGATTACACCTTACCATGCCCTACG  
CCCCTGCAAAGGAATCCTGTATGGCACGATGACCCTGGAGCTGGGTGGGAAGGTCACCATCGAGTGTGCGAAGA  
ACAACCTCCAGGCCAGCTGGAAATTCAAACCTCAAGCCCTTCTTCGGGGGTAGCACCAGCATCAACCAGATCTCGG  
GAAAGATCACGTCGGGAGAGGAAGTCCTGGCGAGCCTCAGTGGCCACTGGGACAGGGACGTGTTTTATCAAGGAGG  
AAGGGAGCGGAAGCAGTGCCTTTTTCTGGACCCCGAGCGGGGAGGTCCGCAGACAGAGGCTGAGGCAGCACACGG  
TGCCGCTGGAGGAGCAGACGGAGCTGGAGTCCGAGAGGCTCTGGCAGCACGTCACCAGGGCCATCAGCAAGGGCG  
ACCAGCACAGGGCCACACAGGAGAAGTTTGCCTGGAGGAGGCACAGCGGCAGCGGGCCCGTGAGCGGCAGGAGA  
GCCTCATGCCCTGGAAGCCGAGCTGTTCCACCTGGACCCCATCACCCAGGAGTGGCACTACCGATACGAGGACC  
ACAGCCCCCTGGGACCCCTGAAGGACATCGCCCAAGTTGAGCAAGACGGGATCCTGCGGACCTTGCAGCAGGAGG  
CCGTGGCCCGCCAGACCACCTTCTGGGCAGCCAGGGCCAGGCACGAGAGGTCTGGCCAGACCAGCGGCTTC  
GCAAGGCCAGCGACCAGCCCTCCGGCCACAGCCAGGCCACGGAGAGCAGCGGATCCACGCCTGAGTCTGCCAG  
AGCTCTCAGACGAGGAGCAGGATGGTGACTTTGTCCCTGGCGGTGAGAGCCCATGCCCTCGGTGCAGGAAGGAGG  
CGCGGCGGCTGCAGGCCCTGCACGAGGCCATCCTCTCCATCCGAGAGGCCCAGCAGGAGCTGCACAGGCACCTCT  
CGGCCATGCTGAGCTCCACGGCACGGGCAGCACAGGCACCGACCCAGGCCTCCTGCAGAGCCCCCGATCCTGGT  
TCCTGCTCTGCGTGTTCTTGGCGTGTGAGCTGTTTCAATTAACCATCCTCAA**ATAG**AGCCCTGGGGGCAGAGCT  
CCTGGCCAGTCCCAGGCCCTCCCTCCCAGGCACCCAGCACTTTAAGCCTGCTCCATGGAGGCAGAGAGGCCCGGC  
AAGCACAGCCACTGTGACGGGGAGTCCAGGCGCAGGAGGGACCCGGGGCCACAAGGCGCTGCGGGCCAGGTGTG  
CTGGGCCCCCTCTCAGGGGCACTGGCCTCTCTGCAGGGCCTTCCGCCAGCGCTGGCCTTAATGCTAAAGCCAAAT  
GCAGCTTCTGCTGTGCGACGCACTCCTGGCCATCTTGCCGTGTACCCCTGTCCGGCCTCCACTTGCCATGGGG  
GATGGATGGATTTAGGGTGGGAGGGCCTGTGGGGGCCCTGGACAGTCACACCCAGCAGCAGTGAAGTGGGCAGGT  
TTGGAGGAGCAGCCAGGGAGCCCCGAGTGGCCAGGAGTCCCCCACACAGATGCATAGGCCTGCCTTCCGGA  
GACCCTGTCCACATTGCCGGGACCACCCTGGTGGGGCCACTGGTGGGTGCCAGGGACAGGTTAGGGCCACTCTGG  
GGAAGGCATTTTGGTTTTTTTATTCCACGCTGTGCTGTTTGGATGGGAGCCCCACAGAGGCAGGTCTTGAACCA  
CCCCCCCCACACCTGGACGCTCGCTCTGGTGGGGGCACACGCAGGTGGAGGTGGTTGTGGGTGCAGGTGTGTGC  
AGGGGTGTGGGGGGCGCAGGGGTGTGGCTTAGCTGGCCCCGCACCCAGGCCGGGGAGGCTCAAGTTCGCCACTTT  
ACTCAGACCGATGCACAGTCTTCCATTTTACACTTTTTTAATAAACATAATTGCAATATTTTAGGTGGGCTGCG

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**FIGURE 1213B**

AGCTGCAGTCAGCCTTCACGTCTGGCCTCAGTCCCCGTGTCAGTGCCGCTCTGCGTGTGCGTGTGCGCGTGTGTG  
AGCCTCTACACATATATATACGTACAGAGCCTTAAACCACATCGTGGCGGTGCCGTCTGAGCTGTAGCGGGTGGC  
TTTGTTCCAGTTTTTGTACCCGTGTCCTTGTCTCCCCCTCCTCCCCATCTGGGGATGTGTCTGTGTTCCACACC  
TTGAAATAAACAGACACATACGTGTTCTCTTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1214**

MKEEAFRRRFSLCPPSSTPQKVDPRKLTRNLLLSGDNELYPLSPGKDMEPNGPSLPRDEGPPTPSSATKVPPAE  
YRLCNGSDKECVSPTARVTKETLKAQKENYRQEKKRATRQLLSALTDPSVIMADSLKIRGTLKSWTKLWCVLK  
PGVLLIYKTPKVGQWVGTVLLHCCELIERPSKKDGFCKFLFHPLDQSVWAVKGPKGESVGSITQPLPSSYLIFRA  
ASESDGRCWLDALELALRCSSLLRLGTCKPGRDGEPTSPDASPSSLCGLPASATVHPDQDLFPLNGSSLENDAF  
SDKSERENPEESDTETQDHSRKTESGSDQSETPGAPVRRGTTYVEQVQEELGELGEASQVETVSEENKSLMWTL  
KQLRPGMDLSRVVLP TFVLEPRSFNLKLSDYHHADLLSRAAVEEDAYS RMKLVLRWYLSGFYKKPKGIKKPYNP  
ILGETFRCCWFHPQTDSTRFYIAEQVSHHPPVSAFHVSNRKDGF CISGSITAKSRFYGNLSALLDGKATLTFLN  
RAEDYTLTMPYAHCKGILYGMTLELGGKVTIECAKNNFQAQLEFKLPFFGGSTSINQISGKITSGEEVLASLS  
GHWDRDVF IKEEGSGSSALFWTPSGEVRRQRLRQHTVPLEEQTELESERLWQHVTRAISKGDQHRATQEKFALEE  
AQRQRARERQESLMPWKQLFHLDPITQEWYRYEDHSPWDPLKDIAQFEQDGILRTLQQEAVARQTTFLGSPGP  
RHERSGPDQRLRKASDQPSGHSQATESSGSTPESCELSDEEQDGD FVPGGESPCPRCKEARRLQALHEAILS I  
REAQQELHRHLSAMLSSTARAAQAPTPGLLQSPRSWFLLCVFLACQLFINHILK

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**FIGURE 1215**

GAATCTCTCGCGGGCAGCAGGGCGCGCGCTGCACGCACAGTACTAGGTCAGGTGGTGCTCCCGGGTGAGGAGCTG  
 CTCCTGCCGGAACAGGAGGACGCGGAAGGCCCTGGGGGTGCAGTGGAGCGACCGTTGAGCCTGA**ATG**CTAGAGCG  
 TGCTCGCGGGTGCGCGTTTGTATGCGGTCCGGGCCTTCGACGCTGTGGGGACCGCCTGCTGGTCACCAAGTGC GG  
 CCGCCTCCGTCACAAGGAGCCCGGCAGTGGAGGCGGCGGCGGTGTTTACTGGGTGGACTCTCAGCAGAAGCGGTA  
 TGTTCAGTAAAAGGAGACCATGTGATTGGCATAGTGACAGCTAAATCTGGAGATATATTCAAAGTTGATGTTGG  
 AGGGAGTGAGCCAGCTTCTTTGTCTTACTTGTCAATTTGAAGGTGCAACTAAAAGAAACAGACCAAATGTGCAGGT  
 TGGAGATCTCATCTATGGCCAGTTTGTGGTTGCTAATAAAGACATGGAACCAGAGATGGTCTGTATTGACAGCTG  
 TGGACGAGCCAATGGAATGGGTGTCATTGGACAGGATGGTCTGCTTTTTAAAGTGACTCTGGGCTTAATTAGAAA  
 GCTATTAGCTCCAGATTGTGAAATCATAACAGGAAGTGGGAAAACCTCTATCCACTGGAGATAGTATTTGGAATGAA  
 TGAAGAATATGGGTTAAGGCAAAAACCATCCAGCAGACTTTAATTTTGGCAAACATTTTAGAAGCTTGTGAACA  
 CATGACGTCAGATCAAAGAAAACAGATCTTCTCCAGATTGGCAGAAAGT**TGAT**ATAGGTGGACTTTTTTACAGGT  
 CAGTTGAGGCAAAAACTATGGGTTTTTTTCAGGTGAACCTCCCCCATTTAAATACTCAGAAGATAAGGTGTGAAT  
 GTATGTATTATTAGAGTCCGAAAGTATTTTTATAAGTTACTGGTTTTACCCACGCTTTTGTGGGAGAGAAAATC  
 ATTGCAAAATCATTTTTTTTTGTTTCGGTACAATAAAGTTTACTAAAAACAAA

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**FIGURE 1216**

MLERARGCAFVCGPGLRRCGDRLLVTKCGRLRHKEPGSGGGGGVYWVDSQQKRYVPVKGDHVGIVTAKSGDIFK  
VDVGGSEPASLSYLSFEGATKRNRPNVQVDLIYGQFVVANKDMEPEMVCIDSCGRANGMGVIGQDGLLFKVTLG  
LIRKLLAPDCEIIQEVGKLYPLEIVFGMNGRIWVKAKTIQQTLILANILEACEHMTSDQRKQIFSRLAES

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**FIGURE 1217**

GGATTTTCCTTGGTCTTAAGATGGGTAGAAATGTGATGCGACACATGTCTGATGACTTAGGAAGTTATGTTTCTC  
TTTCGTGTGATGACTTTTCTTCACAGGAATTAGAGATTTTCATTTGCTCCTTTTCCTCCTCCTGGCTTCAAATGT  
TTGTTGCAGAGGCAGTCTTTAAAAAGTTGTGTCTACAGAGCTCTGGCAGTGTTTCTTCTGAGCCACTCTCTCTTC  
AGAAAATGGTATATTCTATTACCAGCCTTGGGGAAAACCTGGTGTGCTTGGGTCTGGAAAGATTACAGGTGTCAA  
AGAAAATAGGACAGCGGCCTTGTTTTGACTCTCAGAGAACCTTACTAATGCTGAATGGTACTAAACAAAAACAAG  
TCGAAGGGCTGCCAGAGTTACTAGACCTGAACCTTGCTAAATGTTCCCTCATCATTAAAAAATTGAAAAAGAAGT  
CAGAAGGAGAATTGTCATGTTCCAAGGAGAATTGCCCTCTGTAGTTAAAAAGATGAATTTTCACAAGACTAATC  
TAAAAGGAGAAACAGCCCTGCATAGAGCTTGCTAAATAACCAAGTGGAGAAATTGATTCTTCTCTCTCTTTGC  
CAGGAATAGACATCAATGTTAAAGACAATGCTGGCTGGACGCCTTTGCATGAAGCCTGTAAGTATGGCAACACAG  
TGTGTGTCCAGGAAATTTTGCAACGTTGTCCAGAGGTAGATCTGCTCACTCAAGTGGACGGGGTGACTCCTTTGC  
ATGATGCACTGTCAAACGGACATGTAGAAATTGGCAAGCTGCTACTACAGCATGGGGGCCAGTGCTTTTACAAC  
AGAGGAATGCTAAGGGAGAATTGCCCTTGGATTATGTGGTTTACCTCAAATCAAAGAAGAACTGTTTGCTATTA  
CAAAAATAGAAGATACAGTGGAGAACCTTTCATGCACAAGCAGAGAAACATTTTCATTACCAGCAACTTGAATTTG  
GCTCCTTTTTTACTTAGTAGGATGTTGCTAAATTTTTGTTCAATTTTTGATTATCTTCAGAGTTCAATTTAGCTT  
CCAAAGGGTTAACTCATCTAAATGAAGTCTTATGGCTTGTAAGAGTCATAAAGAAACCACAGTGTTTCATACTG  
ACTGGTTACTGGATCTTTATGCTGGAAATATAAAGACATTGCAGAACTCCCACACATTCTTAAGGAAGTGCCTG  
AGAATTTGAAAGTGTGCTCCTGGGGTACACACTGAGGCCTTGATGATAACATTGGAAATGATGTGTGGTCAGTCA  
TGGAGTTTTCAATGATGCTAGAAAGTATGGATTGACTTTCTAAATCTGTTCAAGTTTGCATTGGTACTTACTGT  
GGACTTCATAGCTTACTGACAGATAGTAATTTGATTTATTTATGACAGACTTTGCAGCCTTGCTAAATTTTAAA  
AGCATTTTTAAAAAACTTCTACAAAACCTCTAGTATGGGCTTCTGACTTTTTCCAGGGTGTAGAATTTGACTCAA  
AAGTAAAAATAATTTTGTTTTAGTATATTCTACTTTTCAATTAATGTTTTTTTGTCTGAAAGTGATATTATATTGT  
ACATGTAAATTAATTTAAATATTTTTTCAAATAAAAATGTAATGTCCTGTAAAAA



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**FIGURE 1218**

MGRNVMRHMSDDLGSYVSLSCDDFSSQELEIFICSFSSSWLQMFVAEAVFKKLCLOSSGSVSSEPLSLQKMVYSY  
LPALGKTGVLGSGKIQVSKKIGQRPCFDSQRTLLMLNGTKQKQVEGLPELLDLNLAKCSSSLKKLKKKSEGELSC  
SKENCPSVVKKMNFHKTNLKGETALHRACINNQVEKLILLLSLPGIDINVKDNAGWTPLEACNYGNTVCVQEIL  
QRCPEVDLLTQVDGVTPLHDALSNGHVEIGKLLQHGGPVLLQQRNAKGELPLDYVVSPQIKEELFAITKIEDTV  
ENFHAQAEKHFHYQQLFEGSFLLSRMLLNFCISIFDLSSEFILASKGLTHLNELLMACKSHKETTSVHTDWLLDLY  
AGNIKTLOKLPHILKELPENLKVCPGVHTEALMITLEMMCRSVMEFS

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**FIGURE 1219**

[illegible]

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**FIGURE 1220**

MPAERPAGSGGSEAPAMVEQLDTAVITPAMLEEEEQLEAAGLERERKMLEKARMSWDRESTEIRYRRLQHLLKS  
NIYSKFLLLTKMEQQQLEEQKKKEKLERKKESLKVKKGKNSIDASEEKPVMRKKRGREDESYNISEVMSKEEILSV  
AKKNKKENEDENSSSTNLCVEDLQKNKDSNSIIKDRLSETVRQNTKFFFDPVPRKCNGQPVFPQQPKHFTGGVMRW  
YQVEGMEWLRMLWENGINGILADEMGLGKTVQCIATIALMIQRGVPGPFLVCGPLSTLPNWMAEFKRFTPDIPMT  
LYHGTQEERQKLVRNIYKRKGTLQIHPVVITSFEIAMRDRNALQHCYWKYLIVDEGHRIKNMKRLIRELKRFNA  
DNKLLLTGTPLQNNLSELWLLNLLPDVFDLKSFEWFDITSLSETAEDIIAKEREQNVHLMLHQILTPTFLLR  
RLKSDVALEVPPKREVVVYAPLSKKQEIFYTAIVNRTIANMFGSSEKETIELSPTGRPKRRTRKSINYSKIDDFP  
NELEKLISQIQPEVDRERAVVEVNIPVESEVNLKLQNMMLLRKCCNHPYLIETPIDPVTQEFKIDEELVTNSGK  
FLILDRMLPELKKRGHKVLLFSQMTSMLDILMDYCHLRDFNFSRLDGSMYSEREKNMHSFNTDPEVFIFLVSTR  
AGGLGINLTAADTVIIYDSWNPQSDLQAQDRCHRIGQTKPVVVYRLVTANTIDQKIVERAAAARKLEKLIHKN  
HFKGGQSGNLNSKNFLDPKELMELLKSRDYEREIKGSREKVISDKDLELLLLDRSDLIDQMNASGPIKEKMGIFKI  
LENSEDSSPECLF



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**FIGURE 1222**

MQGTWLPPSFLAVCDTEEVSLFLELCFKIHVTCKAVLICDYGPMELGQSLWEAEGKDPGHFR

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**FIGURE 1223**

CCCTTTAAAGGGTGACTCGTCCCACTTGTGTTCTCTCTCCTGGTGACAGATTGCAAGCAAGTTTATCAGAGTATC  
GCC**ATGA**AGTTTCGTCCCCCTGCCCTCTGCTGGTGACCTTGTCTGCTGCGTGGGGACTTTGGGTCAGGCCCCGAGGCAA  
AAGCAAGGAAGCACTGGGGAGGAATTCCATTTCCAGACTGGAGGGAGAGATTCTGCACTATGCGTCCAGCAGC  
TTGGGGCAAGGTGCTGGAGAAGTCTGGCTTCGCGTCGACTGCCGCAACACAGACCAGACCTACTGGTGTGAGTAC  
AGGGGGCAGCCCAGCATGTGCCAGGCTTTTGCTGCTGACCCCAAACCTTACTGGAATCAAGCCCTGCAGGAGCTG  
AGGCGCCTTCACCATGCGTGCCAGGGGGCCCCGGTGCTTAGGCCATCCGTGTGCAGGGAGGCTGGACCCCAGGCC  
CATATGCAGCAGGTGACTTCCAGCCTCAAGGGCAGCCCAGAGCCCAACCAGCAGCCTGAGGCTGGGACGCCATCT  
CTGAGGCCCAAGGCCACAGTGAAACTCACAGAAGCAACACAGCTGGGAAAGGACTCGATGGAAGAGCTGGGAAAA  
GCCAAACCCACCACCCGACCCACAGCCAAACCTACCCAGCCTGGACCCAGGCCCGGAGGGAATGAGGAAGCAAAG  
AAGAAGGCCTGGGAACATTGTTGGAAACCCTTCAGGCCCTGTGCGCCTTTCTCATCAGCTTCTTCCGAGGG**TGA**

CAGGTGAAAGACCCCTACAGATCTGACCTCTCCCTGACAGACAACCATCTCTTTTTATATTATGCCGCTTTCAAT  
CCAACGTTCTCACACTGGAAGAAGAGAGTTTCTAATCAGATGCAACGGCCCCAAATTCCTTGATCTGCAGCTTCTCT  
GAAGTTTGAAAAGAAACCTTCCTTTCTGGAGTTTGCAGAGTTCAGCAATATGATAGGGAACAGGTGCTGATGGG  
CCCAAGAGTGACAAGCATACACAACCTACTTATTATCTGTAGAAGTTTTGCTTTGTTGATCTGAGCCTTCTATGAA  
AGTTTAAATATGTAACGCATTCATGAATTTCCAGTGTTTCAGTAAATAGCAGCTATGTGTGTGCAAAATAAAAGAA  
TGATTTCAGAAAT

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**FIGURE 1224**

MKFVPCLLLVTLSCGLTLGQAPRQKQGSGTGEFHFQTGGRDSCTMRPSSLGQGAGEVWLRVDCRNTDQTYWCEYR  
GQPSMCQAFADPKPYWNQALQELRRLHHACQGAPVLRPSVCREAGPQAHMQQVTSSLKGSPEPNQQPEAGTPSL  
RPKATVKLTEATQLGKDSMEELGKAKPTTRPTAKPTQPGPRPGGNEEAKKKAWEHWCWKFQALCAFLISFFRG

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**FIGURE 1225**

GTCTACACCCCTCCTCACACGCACTTCACCTGGGTGCGGATTCTCAGGTCATGAACGGTCCCAGCCACCTCCGG  
 GCAGGGCGGGTGAGGACGGGGACGGGGCGTGTCCAACCTGGCTGTGGGCTCTTGAAACCCGAGC**ATG**GCACAGCAC  
 GGGGCGATGGGCGCGTTTCGGGCCCTGTGCGGCCTGGCGCTGCTGTGCGCGCTCAGCCTGGGTGAGCGCCCCACC  
 GGGGGTCCCCGGGTGCGGCCCTGGGCGCCTCCTGCTTGGGACGGGAACGGACGCGCGCTGCTGCCGGGTTACACG  
 ACGCGCTGCTGCCGCGATTACCCGGGCGAGGAGTGCTGTTCGAGTGGGACTGCATGTGTGTCCAGCCTGAATTC  
 CACTGCGGAGACCCTTGCTGCACGACCTGCCGGCACCACCCTTGTCCTCCAGGCCAGGGGGTACAGTCCCAGGGG  
 AAATTCACTTTTGGCTTCCAGTGTATCGACTGTGCCTCGGGACCTTCTCCGGGGGCCACGAAGGCCACTGCAA  
 CCTTGACAGACTGCACCCAGTTCGGGTTTCTCACTGTGTTCCCTGGGAACAAGACCCACAACGCTGTGTGCGTC  
 CCAGGGTCCCCGCCGGCAGAGCCGCTTGGGTGGCTGACCGTCGTCTCCTGGCCGTGGCCGCCTGCGTCCTCCTC  
 CTGACCTCGGCCCAGCTTGGACTGCACATCTGGCAGCTGAGGAGTCAGTGCATGTGGCCCCGAGAGACCCAGCTG  
 CTGCTGGAGGTGCCGCCGTGACCGAAGACGCCAGAAGCTGCCAGTTCCTCCGAGGAAGAGCGGGGCGAGCGATCG  
 GCAGAGGAGAAGGGGCGGTGGGAGACCTGTGGGTG**TGAG**CCTGGCCGTCTCCTCCGGGGCCACCGACCGCAGCCAG  
 CCCCTCCCCAGGAGCTCCCCAGGCCGAGGGGCTCTGCGTTCTGCTCTGGGCCGGGCCCTGCTCCCCTGGCAGCA  
 GAAGTGGGTGCAGGAAGGTGGCAGTGACCAGCGCCCTGGACCATGCAGTTCGGCGGGCCGCGGCTGGGCCCTGCAG  
 GAGGGAGAGAGACACAGTCATGGCCCCCTTCCCTCCCTTGCTGGCCCTGATGGGGTGGGGTCTTAGGACGGGAG  
 GCTGTGTCCGTGGGTGTGCAGTGCCAGCACGGGACCCGGCTGCAGGGGACCTTCAATAAACACTTGTCCAGTGA  
 AAAAAAAAAAAAAA



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**FIGURE 1226**

MAQHGAMGAFRALCGLALLCALS LGQRPTGGPGCGPGRLLLGTGTDARCCRVHTTRCCRDYPGEECCSEWDCMCV  
QPEFHCGDPCCTTCRHHPCPPGQGVQSQGKFSFGFQCIDCASGTFSGGHEGHCKPWDCTQFGFLTVPFGNKTHN  
AVCVPGSPPAEPLGWLTVVLLAVAACVLLLTSAQLGLHIWQLRSQCMWPRETQLLLEVPPSTEDARSCQFPEEER  
GERSAEEKGRLGDLWV

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**FIGURE 1227**

CGCCCGCGCGCCCGGGAGCCTACCCAGCACGCGCTCCGCGCCCACTGGTTCCCTCCAGCCGCCGCGTCCAGCC  
GAGTCCCCACTCCGGAGTCGCCGCTGCCGCGGGGACATGGTCCCTCTGCGTTCAGGGACCTCGTCCTTTGCTGGCT  
GTGGAGCGGACTGGGCAGCGGCCCTGTGGGCCCGTCCCTGGAACTGCCAAGCCAGTCATGCAGCCCTTGCT  
GCTGGGGCCTTCCTCGAGGAGGTGGCAGAGGGTACCCAGCCAGACAGAGAGTGAGCCAAAGGTGCTGGACCCA  
GAGGAGGATCTGCTGTGCATAGCCAAGACCTTCTCCTACCTTCGGGAATCTGGCTGGTATTGGGGTTCCATTACG  
GCCAGCGAGGCCCCGACAACACCTGCAGAAGATGCCAGAAGGCACGTTCTTAGTACGTGACAGCACGCACCCCAGC  
TACCTGTTACGCTGTCAGTGA AAACCACTCGTGGCCCCACCAATGTACGCATTGAGTATGCCGACTCCAGCTTC  
CGTCTGGACTCCAACCTGCTTGTCCAGGCCACGCATCCTGGCCTTTCCGGATGTGGTCAGCCTTGTGCAGCACTAT  
GTGGCCTCCTGCACTGCTGATACCCGAAGCGACAGCCCCGATCCTGCTCCACCCCGGCCCTGCCTATGCCTAAG  
GAGGATGCGCCTAGTGACCCAGCACTGCCTGCTCCTCCACCAGCCACTGCTGTACACCTAAACTGGTGCAGCCC  
TTTGTACGCAGAAGCAGTGCCCGCAGCCTGCAACACCTGTGCCGCCTTGTCAACAACCGTCTGGTGGCCGACGTG  
GACTGCCTGCCACTGCCCCGGCGCATGGCCGACTACCTCCGACAGTACCCCTTCCAGCTCTTGACTGTACGGGGCA  
ATCTGCCCCACCTCACCAGTCGCACCCCTGGAGGGGACATCAGCCCCAGCTGGACTTGGGCCCCCACTGTCCCTC  
CTCCAGGCATCCTGGTGCCTGCATACCTCTGGCAGCTGGCCCAGGAAGAGCCAGCAAGAGCAAGGCATGGGAGAG  
GGGAGGTGTACACAACCTTGGAGGTAAATGCCCCAGGCCGCATGTGGCTTCAATTATACTGAGCCATGTGTCAGA  
GGATGGGGAGACAGGCAGGACCTTGTCTCACCTGTGGGCTGGGCCAGACCTCCACTCGCTTGCCTGCCCTGGCC  
ACCTGAACTGTATGGGCACTCTCAGCCCTGGTTTTTCAATCCCCAGGGTCGGGTAGGACCCCTACTGGCAGCCAG  
CCTCTGTTTCTGGGAGGATGACATGCAGAGGAAGTGAATCGACAGTGA TAGTGACCCCTTGTGAGGGGTAAG  
CCAGGCTAGGGGACTGCACAATTATACACTATTTATTTATTTATTCTCCTTGGGGTTGGTGTGAGGGGCGAGCCA  
ACCCACCTCTATGCCCTGAGCCCTGGTAGTCCAGAGACCCCAACTCTGCCCTGGCTTCTCTGGTTCTTCCCTGT  
GGAAAGCCCATCCTGAGACATCTTGCTGGAACCAAGGCAATCCTGGATGTCCTGGTACTGACCCACCCGTCTGTG  
AATGTGTCCACTCTCTTCTGCGCCCAGCCATATTTGGGGAGGATGGACAAC TACAATAGGTAAGAAAATGCAGCC  
GGAGCCTCAGTCCCCAGCAGAGCCTGTGTCTCACCCCTCACAGGACAGAGCTGTATCTGCATAGAGCTGGTCTC  
ACTGTGGCGCAGGCCCC

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**FIGURE 1228**

MVLCVQGPRPLLAVERTGQRPLWAPSLELPKPVMOPLPAGAFLEEVAEGTPAQTESEPKVLDPEEDLLCIAKTFS  
YLRESGWYWGSITASEARQHLQKMPEGTFLVRDSTHPSYLFILSVKTTRGPTNVRIEYADSSFRLDSNCLSRPRI  
LAFPDVVSILVQHYVASCTADTRSDSPDPAPTPALPMPKEDAPSDPALPAPPPATAVHLKLVQPFVRRSSARSLQH  
LCRLVINRLVADVDCPLPRRMADYLRQYPFQL

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**FIGURE 1229**

GGCACGAGGGTTCCCGCCAGGTCCGTGCCGGGCGAGAGAGATGCTGCCCGGCCCGCCTCGGCTTTGAGGCGAGAG  
AAGTGTCCAGACCCATTTTCGCCTTGCTGACGGCGTCGAGCCCTGGCCAGACATGTCACAGGGTTCTCCTTCGG  
GTCCGGGACTCTGGGCTCCACCACCGTGGCCGCCGGCGGGACCAGCACAGGCGGCGTTTTCTCCTTCGGAACGGG  
AGCGTCTAGCAACCCTTCTGTGGGGCTCAATTTTGAAATCTTGGAAGTACTTCAACTCCAGCAACTACATCTGC  
TCCTTCAAGTGGTTTTTGGAACCGGGCTCTTTGGATCTAAACCTGCCACTGGGTTCACTCTAGGAGGAACAAATAC  
AGGAATAGCAACAACATACTACAGGATTAACCTCTGGGAACGCCAGCCACTACATCTGCAGCTACAACAGGCTT  
CAGTTTAGGATTCAATAAACCTGCAGCATCTGCCACACCATTTGCTCTACCTATTACCTCTACCTCAGCTAGCGG  
TCTGACTCTTTTCGTCTGCTCTGACATCAACTCCAGCAGCATCCACAGGATTTACTCTAAATAATTTGGGTGGGAC  
AACAGCCACAACATACTGCATCAACAGGCCTCTCTTTAGGGGGAGCCTTAGCTGGTTTGGGAGGTTCACTTTT  
CCAGAGTACAAACACAGGAACATCAGGACTTGGACAGAATGCTTTAGGGTTGACTTTGGGAACATAAGCAGCTAC  
TTCAACTGCAGGCAATGAAGGCCTTGGTGGTATAGATTTCACTAGCTCCTCAGATAAAAAGAGTGATAAAACGGG  
AACAAGACCAGAGGATAGTAAAGCTCTGAAGGATGAAATCTACCTCCTGTCTGCTGCCAGGATGTTGAAATCT  
CCAGAAATTTGTGAAGGAGCAGAAACAAGTTCAAGAAGAAATTAGTAGAATGTCTTCAAAAGCAATGCTTAAGGT  
ACAAGAAGATATTAAAGCTCTGAAGCAGCTCCTGTCTGCTGGCTGCCAATGGAATACAGAGAAACACTCTCAACAT  
TGACAAATGAAAATAGAACTGCTCAGGAGTTGAAGAATGCTGAAATAGCTTTAAGAACCCAGAAGACACCACC  
TGGACTTCAACATGAATATGCAGCTCCTGTCTGACTACTTCAGAATCTTGGTTCAGCAATTTGAGGTACAGCTTCA  
GCAGTACAGGCAGCAGATTGAAGAACTAGAAAACCATCTTGCCACTCAAGCAATAATTCACATATAACCCCTCA  
AGATTTGTCAATGGCTATGCAGAAAATTTATCAACATTTGTAGCTTTAGCGGCACAACCTTCAGTCTATTCAATGA  
AAATGTAAAGGTTCTGAAAGAACAGTACCTTGGCTACAGGAAAATGTTCTTGGGAGATGCTGTTGATGTGTTTGA  
AACAAGGCGAGCAGAAGCCAAGAAGTGGCAGAACACACCCAGAGTTACTACTGGACCCACTCCTTTTCAGCACCAT  
GCCAAACGCAGCAGCCGTTGCCATGGCTGCAACACTTACACAGCAGCAACAGCCTGCTACAGGGCCACAGCCATC  
TCTGGGAGTTAGTTTTTGGAACGCCATTTCGGCTCAGGTATTGGCACTGGCTTGCAATCAAGTGGCTTAGGTTCTTC  
AAACCTTGGAGGATTTGGAACCTAGCTCTGGTTTTGGATGCAGCACCACAGGGGCCTCCACATTTGGATTTGGAAC  
AACAAATAAACCTCAGGAAGTCTTAGTGCAGGCTTTGGCAGCTCAAGTACATCTGGGTTTAACTTCAGCAATCC  
TGGCATCACGGCATCAGCTGGTTTTGACTTTTTGGGGTGTCCAATCCTGCCTCTGCAGGTTTTGGAACAGGAGGACA  
ACTCCTTCAGTTGAAGAAACCTCCAGCTGGAAACAAAAGAGGAAAAAGATAAATCATGGGTTGATGTGTTGAGAGA  
ATCCATAGCAGCACCGTTTCACTCTATGAGTCTATTTTTCTAATGATGCAGTAATTAATTCATCCCAGGAGATT  
TATAAAGTTTTGATATTTTTCCCTACTCTGGAATTTGAACCTTTCTTCATGTTTGCCATACTGAACATCTTTTTTC  
TTGTGGAATTTAAAGTCCAGCTGTGTTTTCTTTTTTAATTTGATTCTCAGTGTAAAGAAATGTTCTGATTACATCAC  
TGATTGGTAATGGTTAGAAACCATTAACCTAAACCTTACTATTTAACCTAGTGTTTTTGTTGATGAGGTTTACAT  
TATGTGAATACATGCACATTTGTTTTCTTATACAGGTGGTGTGAACCTCTAGGGCCTATACTAGAATCAATTTGTTT  
CTTGTTAAAGGCCTTTTGAATTATACTGCAGGGCATCTTGTGAATATGTATGTAAATATATACAGAATAATACAC  
ACAGTTGTGTGTGCATATAAAATACATATTTACGCCAGGCGTGGTGGCTCACGCCTGTAATCCCAGCACTTTGGG  
AGGCCGAGGCAGGCGGATCACCTGAGGTGAGGAGTTTGAGACCAGCCTGACATGGTGAAACCCCATCTCTACGAA  
AAATACAAAAATTAGCTGGGCATAGTGGCGGGTACCTATAATCCCAGCTACTCGGGAGGCTGAGGCACGAGAATC  
ACTTGAAGCCGGGAGGTGGGGTTGCAGTGAGCCGAGATCACACCACTGCACTCCAGCCTGGGCAACAAGAGCAA  
AACTCCGTCTCAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1230**

MSTGFSFGSGTLGSTTVAAGGTSTGGVFSFGTGASSNPSVGLNFGNLGSTSTPATTAPSSGFGTGLFGSKPATG  
FTLGGTNTGIATTITTTGLTLGTPATTSAATTGFSLGFNKPAASATPFALPITSTSASGLTLSSALTSTPAASTGF  
TLNNLGGTTATTTTASTGLSLGGALAGLGGSLFQSTNTGTSGLGQNALGLTLGTTAATSTAGNEGLGGIDFSSSS  
DKKSDKTGTRPEDSKALKDENLPPVICQDVENLQKFVKEQKQVQEEISRMSSKAMLVQEDIKALKQLLSLAANG  
IQRNTLNIDKLKIETAQELKNAEIALRTQKTPPGLQHEYAAPADYFRILVQQFEVQLQQYRQQIEELENHLATQA  
NNSHITPQDLSMAMQKIYQTFVALAAQLQSIHENVKVLKEQYLG YRKMFLGDAVDVFETRRAEAKKWQNTPRVTT  
GPTPFSTMPNAAAVAMAATLTQQQQPATGPQPSLGVSFGTFFGSGIGTGLQSSGLGSSNLGGFGTSSGFGCSTTG  
ASTFGFGTTNKPSGSLSAGFGSSSTSGFNFSNPGITASAGLTFGVSNPASAGFGTGGQLLQLKKPPAGNKRGR

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**FIGURE 1231**

TTTTCGAGACCGGAAGTGAGTGATCGAAAGCATGGCGTCGGTGGTGTGGCGCTGAGGACCCGGACAGCCGTTAC  
ATCCTTGCTAAGCCCCACTCCGGCTACAGCTCTTGCTGTCAGATACGCATCCAAGAAGTCGGGTGGTAGCTCCAA  
AAACCTCGGTGGAAAGTCATCAGGCAGACGCCAAGGCATTAAGAAAATGGAAGGTCCTATGTTTATGCTGGGAA  
CATCATTGCAACACAGCGCCATTTCCGCTGGCACCCAGGTGCCCATGTGGGTGTTGGGAAGAATAAATGTCTGTA  
TGCCCTGGAAGAGGGGATAGTCCGCTACACTAAGGAGGTCTACGTGCCTCATCCAGAAACACGGAGGCTGTGGA  
TCTGATCACCAGGCTGCCCCAAGGGTGCTGTGCTCTACAAGACTTTTGTCCACGTGGTTCCTGCCAAGCCTGAGGG  
CACCTTCAAACCTGGTAGCTATGCTTTTGATGTCCTGTTGAGGCCATCGGACAGAGACTGGAGCCCAGGTGACAGGA  
GATGGTGATACCAGAAGTCAAGGGTTGGGGTGGCGACACGGCCTCCCGAGGAAGAGGTCTGCTTGATGGTGACTC  
TGCAGGAGACTCTGAAGTGAAGTGTGGGAAACCCTTTGGGAGACCTGACCTGGGGCCAAAAATAAAGTGAGCCAG  
CGTCATGAACGCATGCTATTTAGGGACAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1232**

MASVVLALRTRTAVTSLLSPTPATALAVRYASKKSGGSSKNLGGKSSGRRQGIKKMEGHYVHAGNI IATQRHFRW  
HPGAHVGVGKNKCLYALEEGIVRYTKEVYVPHPRNTEAVDLITRLPKGAVLYKTFVHVVPKPEGTFKLVAML

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**FIGURE 1233**

CCCGAGCCCCGCCCCCTCCGGGCCCCGGGTGCGCGCGCCAGCCTGCCAGCCGCGCTGCTGCTCCTCCTGCTGT  
GGGACCGCTGACCGCGCGGCTGCTCCGCTCTCCCGCTCCAAGCGCCGATCTGGGCACCCGCCACCAGCATGGAC  
GCTCGCCGCGTGCCGCAGAAAGATCTCAGAGTAAAGAAGAACTTAAAGAAATTCAGATATGTGAAGTTGATTTC  
ATGGAAACCTCGTCATCCTCTGATGACAGTTGTGACAGCTTTGCTTCTGATAATTTTGCAAACACGAAACCTAA  
TTCAGGTGAGATATCAGTGAAGAACTGGCAAGTGTTTTTATGAGGACTCTGATAATGAATCTTTCTGCGGCTTT  
TCAGAAAGTGAGGTGCAAGATGTATTAGACCATTGTGGATTTTTACAGAAACCAAGGCCAGATGTCTACTAACGAA  
CTGGCCGGTATTTTTTCATGCCGACTCTGACGATGAATCATTTTTGCGGTTTTCTCAGAGAGTGAGATACAAGATGGA  
ATGAGGCTGCAGTCAGTTCGGGAAGGCTGTAGGACCCGCAGCCAGTGCAGGCACTCTGGACCTCTCAGGTGGCG  
ATGAAGTTTCCAGCGCGGAGTACCAGGGGAGCAACCAACAAAAAGCAGAGTCCCGCCAGCCCTCAGAGAATTCT  
GTGACTGATTCCAACCTCCGATTGAGAAGATGAAAGTGGAATGAATTTTTTGAGAAAAGGGCTTTAAATATAAAG  
CAAAACAAAGCAATGCTTGCAAACTCATGTCTGAATTAGAAAGCTTCCCTGGCTCGTTCCGTGGAAGACATCCC  
CTCCAGGCTCCGACTCACAATCAAGGAGACCGCGAAGGCGTACATTCCCGGGTGTTGCTTCCAGGAGAAACCT  
GAACGGAGAGCTCGTCCTCTTACCAGGTCAAGGTCCCGATCCTCGGGTCCCTTGACGCTCTACCCATGGAGGAG  
GAGGAGGAAGAGGATAAGTACATGTTGGTGAGAAAGAGGAAGACCGTGATGGCTACATGAATGAAGATGACCTG  
CCCAGAAGCCGTCGCTCCAGATCATCCGTGACCCTTCCGCATATAATTCGCCAGTGGAAGAAATTACAGAGGAG  
GAGTTGGAGAACGTCTGCAGCAATTCTCGAGAGAAGATATATAACCGTCACTGGGCTCTACTTGTCTCATCAATGC  
CGTCAGAAGACTATTGATACCAAAACAACTGCAGAAACCCAGACTGCTGGGGCGTTCGAGGCCAGTTCTGTGGC  
CCCTGCCTTCGAAACCGTTATGGTGAAGAGGTGAGGATGCTCTGCTGGATCCGAAGTGGCATTGCCCGCCTTGT  
CGAGGAATCTGCAACTGCAGTTTCTGCCGGCAGCGAGATGGACGGTGTGCGACTGGGGTCTTGTGTATTTAGCC  
AAATATCATGGCTTTGGGAATGTGCATGCCTACTTGAAAAGCCTGAAACAGGAATTTGAAATGCAAGCATAAATAT  
CTGGAAAATTTGCTGCCTGCCTTCTACTTCTCAAATCTTTCTTGTAAGTTTCCAATTTTTTCTACTGAAACCTG  
AGTTAAAAATCTTGATGATCAGCCTGTTTCATAAGAACTCCAATCAAGTTAATCTTAGCAGACATGTGTTTCTG  
GAGCATCACAGAAGGTATATTGCTAGTTACACTTTGCCCTCCTGCAGTTTCTTCTCTGCTCCCAACCCCATCTC  
ATAGCATCCCCCTCTATTTCCAATGCTCCTCTCCAACCGCTTAGTTTCTGAATTTCTTTTAAATTACAGTTTTAT  
GAAAGCATATTTTATTTACTTGGTGTTGAAATAGCCCTCATAAAACCTAAGCACTTGGAACACAATAATAGTAT  
TAACTAAGTAGATCTATTGAATTTAGAGAAGAGCCTTCTAACTTGTTTACACAAAACGAGTATGATTTAGCAT  
TCATACTAGTTGAAATTTTTAATAGAATCAAGGCACAAAAGTCTTAAACCATGTGGAAAAATTAGGTAATTATT  
GCAGATTGATGTCTCTCAATCCCATGTATTGCGCTTATGTTACAAGTTGTTGTCACAGTTGAGACTTAATTTCTC  
CTAATTTCTTCTGCCCCAAGGGTAAGTGGTGCGTCCAGCTTACACAATCATAATTCAAAGGTTGGTGGGCAATGT  
AATACTTAATTAATAAATGATGGAAGAGCTATCTGGAGATTATGAGTAAGCTGATTTGAATTTTCAGTATAAAA  
CTTTAGTATAATTGTAGTTTGCAAAGTTTATTTAGTTTACATGTAAGGTATTGCAATAAATTTCTTGACAATT  
TTGTATGGAACTTGATATTAATAAACTAGTCTGTGGTTCTTTGCAGTTTCTTGTAATTTTATAAACAGGCACAA  
GGTTCAAGTTTAGATTTTAAGCACTTTTATAACAATGATAAGTGCCTTTTGGAGATGTAACTTTTAGCAGTTTG  
TTAACCTGACATCTCTGCCAGTCTAGTTTCTGGGCAGGTTTCTGTGTCAGTATTCCCTCCTCTTTGCATTAA  
TCAAGGTATTTGGTAGAGGTGGAATCTAAGTGTTTGTATGTCCAATTTACTTGATATGTAAACCATTTGCTGTGC  
CATTCATGTTTGTATGCATAATTGGACCTTGAATCGATAAGTGTAATACAGCTTTTGATCTGTAATGCTTTTAT  
ACAAAAGTTTATTTAATAATAAAATGTTTGTCTAACTTGCTGCTTTTTTAAAAATAATCTTACTGTACTTAA  
TTCTAATTTTTTCTCATATTTAATAAAAGGCCATTTCCACCTTTTCT



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**FIGURE 1234**

MDARRVPQKDLRVKKNLKKFRYVKLISMETSSSSDDSCDSFASDNFANTKPKFRSDISEELASV FYEDSDNESFC  
GFSESEVQDYL DHCGLQKPRPDVTINELAGIFHADSDDDESFCGFSESEIQDGMRLQSVREGCRTRSQCRHSGPLR  
VAMKF PARSTRGATNKKAESRQPSSENSVTDSNSDSEDESGMNFLEKRALNIKQNKAMLAKLMSELESFPGSFRGR  
HPLPGSDSQ\$RRP\$RRRTFPGVASRRNPERRARPLTRSR\$RILGSLDALPME\$EEEEEDKYMLVRKRKTVDGYMNED  
DLPR\$RR\$R\$SVTLPHIIRPV\$EITEEEL\$NVCSNSREKIYNRSLGSTCHQCRQKTIDTKNCRNPDCWGVRGQF  
CGPCLRNRYGEEVRDALDPNWHCPPCRGICNCSFCRQRDGRCATGVLVYLAKYHGFGNVHAYLKSLKQEFEMQA

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**FIGURE 1235**

GGCACGAGGCAACTTTGTGTAAAGCAGCTTCTCCACAGAGCTTTCCTGCATTGTTAGTGATGTCGGGCAAAGC  
ATCACTCTTTAACCTGGGGCATTGGCCCCAGCAGGGATATCATGGGACCGCAGCCGCTCCGTGCACTGTCTCTGC  
CCCCAGAGGAAGCCCTGTCCATGGTTCCCTGGTGACGGCCACAGGCCTGCCTTGAGGCCACCACATCTGGTGTCT  
AGAACAGCTGCGGGCCCCACTTGGGCAGAAGGAAGAGGTGCTAGCTGCTGCCCTGCCTGCTGTGAACACCTGCC  
CAGCCCTTCCTTGCTGTGCTGAGGTGCTCAGACCAGAGTGCCATTAAATACCAACTGATGTCACGGAGCGGACGGT  
GCATTGCCAAGGACTCACAGCTGTGGGCTCCCTTCCAGCTCCTCCCACTTTCTTGGCTGGGTCTTCTGAGGCCTA  
CGTGGAATGAACTACACATGTGGCCTCATGCCCAAGGGTTTGTTAGATGGCCTCTGACTCTGTGGGATTCAACTT  
GACTTTTTTGCCCCAGGAGGCTCTGTCTGGAAACAGGCTTAGCTTTAGTGCTGGGGTGGGACCTGCCCTGTGGGC  
CCCAGGGAGGGGACAGTGGGGGTGAGGCCCTGAGGCTGTCCAGGGTCTGAGCTCTTGCCTCCAACCTGCTTCTG  
CCCCAAAAGGAACAGGCTGTTGGTGGCAGGCTCCTCCCGGGGAGCTGTACTGTACAGACCAAGGTGTAAATAAAC  
AGTTTGCTCTTCTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1236**

MGPQPLRALSLPPEEALSMVPGARPQACLEATTSGV

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**FIGURE 1237**

CCTCGCCCCGCCCTACGCGGGAACCCAACCGCGGCGACCGGACGTGCACTCCTCCAGTAGCGGCTGCACGTCGTGC  
**AATG**CCCCGCTATGAGGAGGTGAGCGTGTCCGGCTTCGAGGAGTCCACCGGGCCGTGGAACAGCACAAATGGCAA  
 GACCATTTTCGCCTACTTTACGGGTTCTAAGGACGCCGGGGGAAAAGCTGGTGCCCCGACTGCGTGCAGGCTGA  
 ACCAGTCGTACGAGAGGGGCTGAAGCACATTAGTGAAGGATGTGTGTTTCATCTACTGCCAAGTAGGAGAAAAGCC  
 TTATTGAAAGATCCAAATAATGACTTCAGAAAAAACTTGAAAGTAACAGCAGTGCCTACACTACTTAAGTATGG  
 AACACCTCAAAAACTGGTAGAATCTGAGTGTCTTCAGGCCAACCTGGTGGAATGTTGTTCTCTGAAGAT**TAAGA**  
 TTTTAGGATGGCAATCATGTCTTGATGTCCTGATTTGTTCTAGTATCAATAAACTGTATACTTGCTTTGAATTCA  
 TGTTAGCAATAAATGATGTTAAAAAACTGGCATGTGTCTAAACAATAGAGTGCTATTAAAATGCCCATGAACCT  
 TTAGTTTGCCTGTAATACATGGATATTTTTAAGATATAAAGAAGTCTTCAGAAATAGCAGTAAAGGCTCAAAGGA  
 ACGTGATTCTTGAAGGTGACGGTAATACCTAAAAACTCCTAAAGGTGCAGAGC

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**FIGURE 1238**

MARYEEVSVSGFEEFHRAVEQHNGKTIIFAYFTGSKDAGGKSWCPDCVQAEPVVREGLKHISEGCVFIYCQVGEKP  
YWKDPNNDFRKNLKVTAVPTLLKYGTPQKLVESECLQANLVEMLFSED

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**FIGURE 1239**

GGCACGAGGGTCATCGCCGCGGGGCGGAGGCGACAGTGTCTAGCGGGAGCTCCGCGTGTAGCTACGCCGGCCGCC  
TGGCTTTGAGACAACGTGATTCTCCGCAGCTGGTCGCCTACCCGTGATGTTCTGCCACGTGAGACCTGAGCTG  
AAATGGCAGACGATCTCGGAGACGAGTGGTGGGAGAACCAGCCGACTGGAGCAGGCAGCAGCCCAGAAGCATCAG  
ATGGTGAAGGAGAAGGAGACACAGAAGTGATGCAGCAGGAGACAGTTCCAGTTCCTGTACCTTCAGAGAAAACCA  
AACAGCCTAAAGAATGTTTTTTGATACAACCAAAGGAAAAGAGAATACCACCAAGACCAGGAAAAGAAGAA  
AGAAGAAAATTACTGATGTTCTTGCAAAATCAGAACCAAAACCAGGGTTACCTGAAGACCTACAGAAGCTGATGA  
AGGACTATTATAGCAGCAGACGCTTGGTGATTGAATTAGAAGAACTGAACCTGCCAGACTCCTGTTTCCTCAAGG  
CCAATGATTTGACTCACAGTCTTTCCTCATACCTAAAAGGAATTTGTCCTAAGTGGGTAAACTTAGGAAGAACC  
ACAGTGAGAAGAAATCGGTCTGATGCTGATCATCTGCAGCTCGGCCGTCCGAGCCCTGGAGCTCATTAGGTCGA  
TGACAGCATTGAGAGGAGACGGCAAAGTTATAAAATTATTTGCAAAGCACATAAAGGTCCAGGCGCAGGTAAAGT  
TGCTGGAGAAGCGTGTGGTGCACCTGGGTGTAGGAACTCCGGGGAGAATTAAAGAACTTGTTAAACAAGGTGGCC  
TTAATTTGAGCCCCTTAAAATTTCTGGTTTTTTGACTGGAAGTGGAGAGATCAGAAGTTGAGGAGAATGATGGACA  
TTCCCGAGATAAGAAAGGAGGTATTCGAACCTCTGGAAATGGGAGTGCTCAGTCTGTGCAAGTCAGAATCCTTGA  
AACTGGGCCTTTTCTAAGTCTGTGTCCTAATGAAGATTCCAGTTTTTCACAGTAGAAGTTGCATCTTATTTAATGA  
CTCTGATACATTGCAAGCACTCAGTAAATATCAGCAAATAGTTTATGTTAATTGTGTCAACAGATGGATCACTGG  
AATGTGGGGATTCTGAAACAGAAATGAACTGTCCTTTTGACAACTCTCTTATATAATAAAGTATCACCGGCTTG  
TGTATGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1240**

MADDLGDEWWENQPTGAGSSPEASDGEGEDTEVMQQETVPVPVPSEKTKQPKECFLIQPKERKENTTKTRKRRK  
KKITDVLAKSEPKPGLPEDLQKLMKDYSSRRLVIELEELNLPDSCFLKANDLTHSLSSYLKGICPKWVKLRKNH  
SEKKSVMMLIICSSAVRALELIRSMATAFRGDGKVIKLFKHIKVQAQVKLEKRVVHLGVGTPGRIKELVKQGG  
NLSPLKFLVFDWNWRDQKLRRMDIPEIRKEVFELLEMGVLSLCKSESCLKGLF

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**FIGURE 1241**

GTCTACACCCCTCCTCACACGCACTTCACCTGGGTCGGGATTCTCAGGTCATGAACGGTCCCAGCCACCTCCGG  
GCAGGGCGGGTGAGGACGGGGACGGGGCGTGCCAAGTGGCTGTGGGCTCTTGAAACCCGAGCATGCCACAGCAC  
GGGGCGATGGGCGCGTTTCGGGCCCTGTGCGGCCTGGCGCTGCTGTGCGCGCTCAGCCTGGGTGAGCGCCCCACC  
GGGGGTCCCGGGTGCGGCCCTGGGCGCCTCCTGCTTGGGACGGGAACGGACGCGCGCTGCTGCCGGGTTCACACG  
ACGCGCTGCTGCCGCGATTACCCGGGCGAGGAGTGCTGTTCCGAGTGGGACTGCATGTGTGTGCCAGCCTGAATTC  
CACTGCGGAGACCCCTTGCTGCACGACCTGCCGGCACCAACCTTGTCACCCAGGCCAGGGGGTACAGTCCCAGGGG  
AAATTCAGTTTTGGCTTCCAGTGTATCGACTGTGCCTCGGGGACCTTCTCCGGGGGCCACGAAGGCCACTGCAAA  
CCTTGAGACAGACTGCACCCAGTTCGGGTTTCTCACTGTGTTCCCTGGGAACAAGACCCACAACGCTGTGTGCGTC  
CCAGGGTCCCCGCCGGCAGAGCCGCTTGGGTGGCTGACCGTCGTCCTCCTGGCCGTGGCCGCCTGCGTCCTCCTC  
CTGACCTCGGCCAGCTTGGACTGCACATCTGGCAGCTGAGGAGTCAGTGCAITGGCCCCGAGAGACCCAGCTG  
CTGCTGGAGGTGCCGCCGTCGACCGAAGACGCCAGAAGCTGCCAGTTCCCCGAGGAAGAGCGGGGCGAGCGATCG  
GCAGAGGAGAAGGGGCGGCTGGGAGACCTGTGGGTGTGAGCCTGGCCGTCTCCGGGGCCACCGACCGCAGCCAG  
CCCCCCCCAGGAGCTCCCCAGGCCGCAGGGGCTCTGCGTTCTGCTCTGGGCCGGGCCCTGCTCCCCTGGCAGCA  
GAAGTGGGTGCAGGAAGGTGGCAGTGACAGCGCCCTGGACCATGCAGTTCGGCGGCCGCGGCTGGGCCCTGCAG  
GAGGGAGAGAGAGACACAGTCATGGCCCCCTTCTCCCTTGCTGGCCCTGATGGGGTGGGGTCTTAGGACGGGAG  
GCTGTGTCCGTGGGTGTGAGTGCCAGCACGGGACCCGGCTGCAGGGGACCTTCAATAAACACTTGTCCAGTGA  
AAAAAAAAAAAAAA



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**FIGURE 1242**

MAQHGAMGAFRALCGLALLCALSLGQRPTGGPGCGPGRLLLGTGTDARCCRVHTTRCCRDYPGEECCSEWDCMCV  
QPEFHCGDPCCTTCRHHPCPPGQGVQSQGKFSFGFQCIDCASGTFSGGHEGHCKPWTQCTQFGFLTVPGNKTHN  
AVCVPGSPPAEPLGWLTVVLLAVAACVLLLTSAQLGLHIWQLRKTQLLEVPSTEDARSCQFPEEERGERSAEE  
KGRLGDLWV

## FIGURE 1243

CGTTTTTTAATTTTAAAGTTGGGGGGGCTCTCAATTTGTTACCCTGCTGGTCTCGAACTCCCGGACTTAAGCGAT  
CCTCTGGCTCCAAGCCCACTACCAGTCTCAGGTTTCTTTACTAAAAGATCACTACCTTTTTTTCTTTATCTGCT  
GCCATG**TGA**GATGTGGCTTTCACCTTCCGCCATGATTGTGAGGCCTTCCAGCCACGTAGAACTGTAAGTCCAAT  
AAACCTCTTTTGTAATTTAAAAAATACTACTATTTAAGATACTAGGATGGATTGTGACTGTTGAGGAGTAC  
TTACATATCCTACATTTGACTACATTATTTCCAAACCAAGTATTCCATCCAAGGAACATACTGCTATCATAGAG  
ACCAAGGAGGGACTGTTTAAGGTTGCCAAGGTGAAGCGAGCTGAGAGGCTTTGTCTCGTGCCAGTAACTCTGAA  
ATCTCTCTTAATTCCTGCTGTCCAGGCAGCAGAATGCCATGGTTTCCCAAGTAGGTAGCTGCTTTAGCAGTTAA  
AGCCCAAATGCTGTGTTCTGTTGATCAGAGGTCTCTGAATTTCTGAAGTGGTGTTCGTTTCTGGTGACTGAGTTA  
ATCCTTTACAATCCCTCTTGTAAGTGTGCTAATAGAAAAGTCCACCTTTCAAAGCTGCAGAACCCAGACCGTGC  
CCTAAATTGACCAACGTAGCTGATGTGCCTCAGGAAGTCTCTTGCCAGCTGTCCCTGTGAAGACCCCCCTCTCC  
CCCCCAGCTGCTGCCTTGCACACTGAAGCATCTCAGACTGTGCAAAGCCGTGTAGTCATCAAGACAGTAAATCCC  
AGGGCTTGGTTAAGTGCTGTGTGATAACTTGTGTTGGATGAGACTTAACTTAAAACCACTTACAATAAACTTGGGA  
AACTACCGTCAGCTGAGTTCAAATTTACTGACGCCATGATATGAGGATGAAGGTTTATTACCTGGTGACATCATC  
CTGTTGGTGACATCATCCTGTTGGTGACAAGGTGGTGATACATCTCTAATGGGACTTCCCTCAGTGGCAGGCAGG  
CTGCCAAGCAACTAACCCCATCAAGTGCCAGACCCCTCCAGTGTTCTGAGAGTCATCTCCATGCTAAACAGCCT  
GCGTTTTATATGATTTCTCTACCCAGCCAAAAAATAATGGTCCATCATGTACGCAGTTATCTAGTCTTAAGTT  
ATATTCTGGCTTTTTTCTCCACTTTATTATGGAGCAGAAGTAAGCCTATCATGTTCTTAGAAAGGCTCTTAAGA  
GGTGTCCTGGAGTCCTTGAATCACTTTAGCATCTGGGGTAGGATGTGCCACCAGGAGGATTTGGGCTGGAGCGTG  
TGTGTTTGCCTTTGACCTGGACTGCTGTCTGATCTTGCTGAACACTCCACCGACATTTCTAAAGTTGCTCAGTG  
CCAATCCAGCAAAGCAGTCCATTTTCCCTTGCCAAGATTGAGATGTATTGTTTTAGATACAGAAGAGTTCTTGG  
ATGAGCCAAGGACAAGCTGGGGTGTCTATATTGAACAGACCTCGATGAAAATCTTGAATTCACCCAGTGCCCT  
CTGTTGGCAAGGGAAGGTGAAGATTGAAAAGTTAAAAAGCTTTTGCCACTTGAGAGGATCAGGGCCGCAACTC  
TTGAAGAAGCAAAGGGCTCAGTGCAATTGGGGTCAGCGCTGGTACAGCTGAAGGATGCCGGCCTTGTGCAGGTCCC  
TCCACAGGGCAGCTTCCAGGGACAGATCGTGGTTTGCATAAAATATCAATGGCTTCATTTTTTCGTTGAAAATAGT  
GGTCGAAAAATTTCCAGTAGTTGCTTGTGATGAATCCATAGGCACCTGACCTGGTACAGGTATGCAAAGCTGTCA  
GCAGCATGAGAGCCCCGGTACTAGGCATATATAGGTCTCCAAAATGTGTGTTAATCAACTTTGATTTCAAGAACC  
TTTCTGTGAGGTAGCTGATGAAGTCCGGATGTAGCAGCTTGAATTTACTGGCAGAGGCTTCTGGTCCAAAAATAGG  
CGTGCGGCCTGTCCCCTTTATCTAGGCCCTCAGGGACAGGCACGCCAGAATGGCCGATCTCAGCATCACATAGT  
CGCGGATGTCTGAGGGGATGAAGATATACTGCAGGTCCTGTCCTTGTGGCACGGAGGTGAAGCCAGATTCCAGT  
AGGAGACGAGGGAGTTCTTCATCGTGTTACAGTGAAACCATAGAAGGAAGTCTTGGTGCCACATCGCGCTCGA  
AGCCTTTGATCACAGCTCCATTGAGTCTGAATACATAGTCATGGGCATCGATGTTGGGACCCCTGGCGGGACCCAT  
TCAGAATGCCCTCCGTTGCCCACACGGCACACCGGATACACTTTGGAGGGGTGTCCCTGGGCGGGGCAAACAGCT  
TGGCACTCTCTGAGCCGTTTCAAAGGCTCAGGGTGGAGGCGATGACTTGGTGAGAGAGCCCCCGCCAGCCATACG  
GGGCTTTGTGTTGGCTCAGGCGGTCCCAGAGCGCTGGGGTGAAGAGGTCCCCCACAGCAGCACTGGAATGGAGA  
GATTGAACAGGCCACGGAAGTGGGGGTGCCGCTGAATGGCCAGGTGAAGCAGGTGTCCGCAGGCCTGGCCCTTTC  
CTGTCCAAGAATTCGATGCCTTGGATTGAAAGAATGCTTCAAATGATGTGGTGTCCCTGGCTCCGGCCGCTGGCC  
CCGGGTACCGCTGCACCGCCGAGAAGTACAGGGCAAAGAGGAGCCCCGAGCAGGCAGCCGTGAGCAGGAGCAGCA  
GCCAGAAGAACGACCCGCGCGGGAGCCCCATACAGCCCCGCGCGAGCGCCCCGTCCGACTGACGTCCAGGC  
AGAAGGGAGAGAACC GGTTGGGCCGGGTGGCACTTGCGGAG

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**FIGURE 1244**

RFLILKLGGVSICYPAGLELPDLSPLPSPLPVSGFFTKRSLPFFLLSAAM

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**FIGURE 1245A**

GTGGACCCAGGGTGGGGAACCTACCTCTTCCTCTCCACGCGGTTGAGAAGACCGGTCGGCCTGGGCAACCTGCGCT  
GAAGATGCCGGGAAAACCTCCGTAGTGACGCTGGTTTGAATCAGACACCGCAATGAAAAAGGGGAGACACTGCG  
AAAGCAAACCGAGGAGAAAGAGAAAAAAGAGAAGCCAAAATCTGATAAGACTGAAGAGATAGCAGAAGAGGAAGA  
AACTGTTTTCCCAAAGCTAAACAAGTTAAAAAGAAAGCAGAGCCTTCTGAAGTTGACATGAATTCTCCTAAATC  
CAAAAAGGCCAAAAAGAAAGAGGAGCCATCTCAAAATGACATTTCTCCTAAAACCAAAAGTTTGAGAAAGAAAA  
GGAGCCCATTTGAAAAGAAAGTGGTTTCTTCTAAAACCAAAAAAGTGACAAAAATGAGGAGCCTTCTGAGGAAGA  
AATAGATGCTCCTAAGCCCAAGAAGATGAAGAAAGAAAAGGAAATGAATGGAGAACTAGAGAGAAAAGCCCCAA  
ACTGAAGAATGGATTTCTCATCTCTGAACCGGACTGTAACCCCAAGTGAAGCTGCCAGTGAAGAAAGTAACAGTGA  
GATAGAGCAGGAAATACCTGTGGAACAAAAAGAAGGCGCTTTCTCTAATTTTCCCATATCTGAAGAACTATTAA  
ACTTCTCAAAGGCCGAGGAGTGACCTTCTATTTCTTATACAAAGCAAAGACATTCCATCATGTTTACAGCGGGAA  
GGACTTAATTGCACAGGCACGGACAGGAACTGGGAAGACATTCTCCTTTGCCATCCCTTTGATTGAGAAACTTCA  
TGGGGAACCTGCAAGACAGGAAGAGAGGCCGCTGCCCCCTCAGGTACTGGTTCTTGCACCTACAAGAGAGTTGGCAAA  
TCAAGTAAGCAAAGACTTCAGTGACATCACAAAAAGCTGTCAAGTGGCTTGTTTTTATGGTGGAACTCCCTATGG  
AGGTCAATTTGAACGCATGAGGAATGGGATTGATATCCTGGTTGGAACACCAGGTGCTATCAAAGACCACATACA  
GAATGGCAAACCTAGATCTCACAACTTAAGCATGTTGTCTGGATGAAGTGGACCAGATGTTGGATATGGGATT  
TGCTGATCAAGTGAAGAGATTTTAAGTGTGGCATAACAAGAAAGATTCTGAAGACAATCCCCAACATTGCTTTT  
TTCTGCAACTTGCCCTCATTGGGTATTTAATGTTGCCAAGAAATACATGAAATCTACATATGAACAGGTGGACCT  
GATTGGTAAAAAGACTCAGAAAACGGCAATAACTGTGGAGCATCTGGCTATTAAGTGCCACTGGACTCAGAGGGC  
AGCAGTTATTGGGGATGTATCCGAGTATATAGTGGTCATCAAGGACGCACTATCATCTTTTGTGAAACCAAGAA  
AGAAGCCCAGGAGCTGTCCAGAATTCAGCTATAAAGCAGGATGCTCAGTCCTTGCATGGAGACATTCCACAGAA  
GCAAAGGGAAATCACCTGAAAGGTTTTAGAAATGGTAGTTTTGGAGTTTTGGTGGCAACCAATGTTGCTGCACG  
TGGGTTAGACATCCCTGAGGTTGATTTGGTTATACAAAGCTCTCCACCAAGGATGTAGAGTCTACATTCATCG  
ATCCGGGCGGACAGGCAGAGCTGGAAGGACGGGGGTGTGCATCTGCTTTTATCAGCACAAGGAAGAATATCAGTT  
AGTACAAGTGGAGCAAAAAGCGGGAATTAAGTTCAAACGAATAGGTGTTCTTCTGCAACAGAAATAATAAAAGC  
TTCCAGCAAAGATGCCATCAGGCTTTTGGATTCCGTGCTCCCACTGCCATTAGTCACTTCAAACAATCAGCTGA  
GAAGCTGATAGAGGAGAAGGGAGCTGTGGAAGCTCTGGCAGCAGCACTGGCCCATATTTTCAAGGTGCCACGTCCGT  
AGACCAGCGCTCCTTGATCAACTCAAATGTGGGTTTTGTGACCATGATCTTGCAGTGCTCAATTGAAATGCCAAA  
TATTAGTTATGCTTGGAAGAAGCTTAAAGAGCAGCTGGGCGAGGAGATTGATTCCAAAGTGAAGGGAATGGTTTT  
TCTCAAAGGAAAGCTGGGTGTTTGCTTTGATGTACCTACCGCATCAGTAACAGAAATACAGGAGAAATGGCATGA  
TTCACGACGCTGGCAGCTCTCTGTGGCCACAGAGCAACCAGAACTGGAAGGACCACGGGAAGGATATGGAGGCTT  
CAGGGGACAGCGGGAAGGCAGTCGAGGCTTCAGGGGACAGCGGGACGGAAACAGAAGATTCAGAGGACAGCGGGA  
AGGCAGTAGAGGCCCGAGAGGACAGCGATCAGGAGGTGGCAACAAAAGTAACAGATCCCAAAACAAAGGCCAGAA  
GCGGAGTTTCAGTAAAGCATTGGTCAATAGAAATAGAAGATTTATATAGCAAAAAGAGAATGATGTTTG  
CAATATAGAACTGAACATTATTTTCATGCAAAGTTAAAAGCACATTGTGCCTCCTTTTGACCACTTGCCAAGTC  
CCTGTCTCTTTCAGACACAGACAAGCTTCATTTAAATTATTTTCATCTGATCATTATCATTTATACTTTATTGTT  
ACTTCTTCATCAGTTTTTCTTTTGAAGGTGTATGAATTCATTACATTTTATTCTAATGTATTATCTGTAGAT  
TAGAAGATAAAATCAAGCATGTATCTGCCTATACTTTGTGAGTTACCTGTCTTTATACTCAAAAGTGTCCTTA  
ATAGTGTCTTCCCTGAAATAAATACCTAAGGGAGTGTAAACAGTCTCTGGAGGACCACTTTGAGCCTTTGGAAGT  
TAAGGTTTTCTCAGCCACCTGCCGAACAGTTTCTCATGTGGTCCTATTATTGTCTACTGAGACTTAATACTGAG  
CAATGTTTTGAAACAAGATTTCAAACCTAATCTGGGTTGTAATACAGTTTATACCAGTGTATGCTCTAGACTTGGA  
AGATGTAGTATGTTTGATGTGGATTACCTATACTTATGTTTCGTTTTGATACATTTTTAGCTTCTCATTATAAGGT  
GATTCATGCTTTAGTGAATTTCTCATAGATAGTATATATAAAAGTACATTTTAATAGAAAGCCAGGGTTTTAAGG  
AATTCACATGTATAAGGTGGCTCCATAGCTTTATTTGTAAGTAGGCTGGATAAATGGTGTCTAAATGGTAATGT  
ACTCCACTTCTCCTATTGGAAGATTAACATTATTTACCAAGAAGGACTTAAGGGAGTAAGGGGCGCAGATTAGC  
ATTGCTCAAGAGTATGTAAAAAAGAGAAAGAAAGAAAGAAAGAAAGAAAGAAAGAAAGAAAGAAAGAAAGAAAG  
ACAAATTCATACTGGAAGCAAAGAGAAGAACAAGTATGATTTGGATGATAAAGCATTGTTTTAATGGTGAAAA  
CTTCACAGATCACTAATGTTTCTAGAGGTTAACTTCAAGTGGGCAAGCTGGGGTTTTTAGGTAGTCAGTGGCCTA  
GTTCTTAAAGCCACAGTATAGGATCTGTAAACTGAATGTCTGTTGAAAGTTTGTTTTAGCTGCTTGGAGGCTTC

**FIGURE 1245B**

CTTTTAAGACAAACTGTATGTGATTAAGTTGTTTTGAGGGAACCTGAAGAACCTGATGTAGCCCCTGGCCAGATAA  
CTGCCTGATTTCTCAGATATTATTTCTCTGGGAAACATTCTACATAGCACAGGAGCTTAAGAGTGGCATTATCTT  
CTCGCCTTAATTTCCAGAGATTATTTCTGTACTGAGAATCCTGGAACCTACTATGCTAGGAAATTTAAAGCTGCAT  
GGTCTGTCTTGTTTTCAATTAATTATTGTGAATACCTAGAATCTTTCTTGCTCCTGATTTCTCTTGCTTAATCCA  
GTCTTTATCTCTAACTGCCCCTTATTTGATCACCATGTACTAGGAGCTCTGATAGCCAGCTCAGCTCCTAATCCT  
TGAGGCAACATTCTTTTTCTATTTGAACTTCAGTTCTGTCTTGAATCCCGACTAGATATTTCTTGCCCTCTGGT  
CTCAGAATTCTCTTGCTTTTTATTCCTTGATCCACTTGCCAGTTTTATCACTTTACCCTTGTTCTCATGGCTTC  
CCATCAAGCCATGGGTATTAGGTGACAGTGTAATTTATTAGATTCTGGTTTTGCCCAAATACTGGGCATGCTTTA  
ATAATAACTGAACCATTTTCATTATTTGGATAGGCATGGGTACCTTATCAAGCAGATTAAAAGGATATGGTACCCG  
TCCTTTAGAAAAGAACAGCTAAAACCTTGTTGTGGATTATGGATTTAGCCTAAAGAAAAATAATCTGGCATAAAT  
TAAGAGTAAGAGAGAAGATTAAATAGAAATTTCACTTCACATAACTTAAAACATGGCTATTTCAATAAAGGACTAA  
AGTTTCTCCTGGATCCCAGAATTCACCTGTATTTATAAATGTATAATGTATTTAGCTACTTTTTGGTTTTAAATG  
AAGTTGTTGGGTTAGCTTGGTAAATGTTATAATTTTTACTGTTTTCTACAAAGAAAATATTTCTAATTTAAGTT  
GGAGCTATCTGTGCAGCAGTTTCTCTACAGTTGTGCATAAATGTTTTTACTATAAAATGAGCTAATGTATAAAAT  
ACTGCTGTATACCATAATAAAGATAGTAATACTTGAAAAAA

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**FIGURE 1246**

WTQGGELPLPLHAVEKTGRPGQPALKMPGKLRS DAGLES DTAMKKGETLRKQTEEEKKKEPKSDKTEEIAEEEE  
TVFPKAKQVKKKAEPSEVDMNSPKSKKAKKKEEPSQNDISPKTKSLRKKKEPIEKKVVSSTKKVTKNEEPSEEE  
IDAPKPKMKKEKEMNGETREKSPKLKNGFPHPEPDCNPSEAASEESNSEIEQEIPVEQKEGAFSNFPISEETIK  
LLKGRGVTFLLP IQAKTFHHVYSGKDLIAQARTGTGKTF SFAIPLIEKLHGELQDRKRGRAPQVLVLAPTRELAN  
QVSKDFSDITKKLSVACFYGGTPYGGQFERMRNGIDILVGTPGRIKDHIQNGKLDLTKLKHVVLDEVDQMLDMGF  
ADQVEEILSVAYKKDSEDNPQTLLFSATCPHWVFNVAKKYMKSTYEQVDLIGKKTQKTAITVEHLAIKCHWTQRA  
AVIGDVIRVYSGHQGRTIIFCETKKEAQELSONSAIKQDAQSLHGDIPQKQREITLKGFRNGSFGVLVATNVAAR  
GLDIPVDLVIQSSPPKDVESYIHRSGRTGRAGRTGVCICFYQHKEEYQLVQVEQKAGIKFKRIGVPSATEI IKA  
SSKDAIRLLDSVPPTAIS HFKQSAEKLIEEKGAVEALAAALAHISGATSVDQ RSLINSNVGFVTMILQCSIEMP N  
ISYAWKELKEQLGEEIDSKVKGMVFLKGKLGVCFDVPTASVTEIQEKWHSRRWQLSVATEQPELEGPREGYGGF  
RGQREGSRGFRGQRDGNRRFRGQREGSRGPRGQ RSGGKNKSNRSQNKGQKR SF SKAFGQ

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**FIGURE 1247A**

GCGCGGGGCTGAGCCGCCCGGGATCAGCGCGAGCACCCAGCCCCGCTCGGCCGGGAGGGCCTGAGAACCCCGGGG  
GCGTGCTGAGCGTGGAGCTGCCCGGGCTGCTGGCGCAGCTGGCGCGGAGCTTCGCGCTGCTGCTGCCCGTGTACG  
CGCTGGGCTACCTGGGGCTCAGCTTCAGCTGGGTTCCTCTCGCGCTCGCGCTGCTCGCCTGGTGTGCCCGCAGCC  
GCGGCCTCAAGGCCCTGCGCCTGTGCCGCGCGCTGGCGCTGCTGGAAGACGAGGAGCGCGTCTGCGCCTGGGGG  
TGCGCGCCTGCGACCTGCCCCGCTGGGTTCATTTTCCAGACACTGAAAGAGCAGAATGGCTAAATAAGACTGTAA  
AACACATGTGGCCTTTCATTTGCCAATTTATAGAGAAGTTGTTTCGAGAAACTATAGAACCAGCCGTGCGGGGAG  
CAAACACCCACCTTAGCACCTTTAGTTTCACGAAGGTCGACGTGGGCCAGCAGCCCCCTCAGGATCAATGGTGTTA  
AGGTATACACTGAAAATGTAGACAAAAGGCAAATTATTTTGACCTTCAGATTAGTTTTGTAGGAAATTGTGAGA  
TTGATTTGGAGATCAAACGATATTTTGTAGAGCTGGTGTGAAAAGTATCCAGATTCATGGTACCATGCGGGTGA  
TCCTGGAACCGTTGATTGGAGATATGCCCTTAGTTGGAGCTTTGTCTATCTTCTTCTTAGGAAACCACTTTTAG  
AAATTAACCTGGACAGGACTGACGAATCTTCTGGATGTCCCTGGATTGAATGGTTTATCAGATACTATCATTTTGG  
ATATAATATCAAACCTATCTGGTGCTTCCCAATCGAATCACCGTTCCACTTGTCAAGTTCAAATAGCTCAGT  
TGCGGTTTTCTGTACCAAAGGGTGTTCTAAGGATACATTTTATTGAAGCTCAGGATCTTCAGGGGAAAGACACTT  
ACCTTAAGGGACTTGTCAAGGGAAAGTCAGACCCCTATGGAATCATTAGAGTTGGCAACCAAATCTTCCAAAGCA  
GAGTCATCAAGGAGAACCTCAGTCCAAAGTGAATGAAGTCTATGAGGCTTTAGTGTATGAACATCCTGGACAAG  
AATTAGAGATTGAGCTCTTTGATGAAGACCCAGACAAGGATGACTTTTTAGGAAGTCTTATGATTGACCTCATTG  
AAGTTGAAAAGGAGCGCCTTTTAGATGAATGGTTCACTCTGGACGAGGTTCCCAAGGGGAAGCTACACTTGAGAC  
TGGAGTGGCTCACGTTAATGCCAAATGCGTCAAACCTCGACAAGGTGCTAACAGACATCAAAGCTGACAAAGACC  
AAGCCAACGATGGTCTTCTCTGCAATTGCTGATCTTGACTTGATTGAGCAAGGAACCTTCCGTGAGGGAAGA  
AAATAAGCAGCAACCCAAATCCTGTTGTCCAGATGTCAGTTGGGCACAAGGCCCAGGAGAGCAAGATTCGATACA  
AAACCAATGAACCTGTGTGGGAGGAAAACCTTCACTTTCTTCAATCACAATCCCAAGCGCCAGGACCTTGAAGTTG  
AGGTGAGAGACGAGCAGCACCAGTGTTCCTGGGGAACCTGAAGGTCCCCCTCAGCCAGCTGCTCACCAGTGAGG  
ACATGACTGTGAGCCAGCGCTTCCAGCTCAGTAACCTCGGGTCCAAACAGCACCATCAAGATGAAGATTGCCCTGC  
GGGTGCTCCATCTCGAAAAGCGAGAAAGGCCTCCAGACCACCAACACTCAGCTCAAGTCAAACGTCCCTCTGTGT  
CCAAAGAGGGGAGGAAAACATCCATCAAATCTCATATGTCTGGGTCTCCAGGCCCTGGTGGCAGCAACACAGCTC  
CATCCACACCAGTCATTGGGGGCAGTGATAAGCCTGGTATGGAAGAAAAGGCCAGCCCCCTGAGGCCGGCCCTC  
AGGGGCTGCACGACCTGGGCAGAAGCTCCTCCAGCCTCCTGGCCTCCCCAGGCCACATCTCAGTCAAGGAGCCGA  
CCCCAGCATCGCCTCGGACATCTCGCTGCCCATCGCCACCCAGGAGCTGCGGCAAAGGCTGAGGCAGCTGGA  
ACGGGACGACCCCTGGGACAGTCTCCACTGGGGCAGATCCAGCTGACCATCCGGCACAGCTCGCAGAGAAACAAGC  
TTATCGTGGTCGTGCATGCCTGCAGAAACCTCATTGCCTTCTCTGAAGACGGCTCTGACCCCTATGTCCGCATGT  
ATTTATTACCAGACAAGAGGCGGTGAGGAAGGAGGAAAACACACGTGTCAAAGAAAACATTAAATCCAGTGTGTTG  
ATCAAAGCTTTGATTTAGTGTTCGTTACCAGAAGTCCAGAGGAGAACGCTTGACGTTGCCGTGAAGAACAGTG  
GCGGCTTCTGTCCAAAGACAAAGGGCTCCTTGGCAAAGTATTGGTTGCTCTGGCATCTGAAGAACTTGCCAAAG  
GCTGGACCCAGTGGTATGACCTCACGGAAGATGGGACGAGGCCTCAGGCGATGACATAGCCGCAGCAGGCAGGAG  
GCGTCTCTTCAGCGTAGCTCTCCACCTCTACCCGGAACACACCCCTCTCACAGACGTACCAATGTTATTTTATA  
ATTTTCATGGATTTAGTTATACATACCTTAATAGTTTATAAAATGTTTGACATTTTCAAGCAAATTTGGCCAATAT  
TATCATTGAATTTTCTGTGTTGGATTTCTCTAGGATTTCCGACGTTCTTACAACGTGCAGTAGGGCGGCGGTAG  
CTCTTGTGTCTGTGGACTCTGCTCAGCTGTGTCCGTAGGAGTCGGATGTGTCTGTGCTTTATTATGGCCTTGTTT  
ATATATCACTGAGGTATACTATGCCATGTAAATAGACTATTTTTTATAATCTTTACATGCTGGTTTAAATTCAGA  
AGGAAATAGATCAAGGAAATATATATATTTTCTTCTAAAACTTATTAAATTCGTGTGACAAATAATCATTTTCAT  
CTTGGCAGCAAAAGTTCTCAGTGACCTATTTTGTGGTGTTCCTTTTGAAGAAAGCTGAAATATTATTAAAT  
GCTAGTATGTTTCTGCCATTATGAAAGATGAAATAAAGTATTCAAAATATTAACATTTTCATAAATATAAGGAT  
GTATTATTGAGAAGTAAGTTGAAGGGCTTATAAGGAAAAATGTTTTATAACTGAGTAATATATTAAGAGAATTGT  
CATGGTTTCATAAATCACATTATGCTAATCTGAAATTTCTTACATAAAAAATGAAGTGTCTTATGTTTATTTTAAAT  
GCTGTTGTAACCTTACTCATGAAACAGTATACAGACACCTTGTAATTTTCTTCAACTGTAAGAGCAGACTTTCAAT  
GTTAGCAATTAAGCTGTTGTCAAACAATCAGTCATGAGCTTTGTAAATTTTCAATGTTTTCCAGCCTATAAAAA  
AAGGAAGGTACACGTTGTCCTTTTAAAGGTTGTGAGGTAGATTGGAGTGAGTAGACAGGATATTGCATTAAAAAT  
TGAAAGCTCGATCTCATTATTGTGTCAGGAACCCCCAGTGTGACCTCACACATAGGATGTGGGACCTTTGAGCCGAT

**FIGURE 1247B**

GTGCACTGGCCACCACCAGGTTGGGGGCGCCACAGCTGCGAGCCCGGCCCTGCTGTTCTCAGCAGCCACTTCC  
CAGGCTGCCTCACTTTATGCCATGACTGACCTTAATATTGGGATATTGTTATGCAATTTTTATCCTGTTTAGACT  
GTTAAAAGCAGGTTTCTGTACTTAAGAGTCCCCAGACCTCCTGTGAGGTGAGGCTCTGTTGCAGTGTCTAGGC  
TGTGTGTGTCTGTAAAGAAAGAATGCACATATGTAGACGATTAAGTGTATATTATAAGCTATATGCTGAAAATGG  
CTTCCATAGCCATGAGAACATCTTAAACTATGTGTAAATATATTAAGGAAAGTATAGCTTTGTAATTTAAATTG  
GAGCTTTTAGCTTGTTTCATGGAACATAACAACCTGTGGGTAACATGACCAAACAAACAAAGTGCCTGTG  
ACGGGGCGGGTGGCGTCTACCCACCCTCCCTTCTAGCAGATTCTTATTTTGTGTTGAATTTATAAACAAGGCTGGT  
GGCTGTCTACCCACCCTCCCTTCTAGCAGATTTTGATTTTGTGTTCAATTTATAACTTACACTTTGAACCATGGGT  
TTACTTATAATGGAGTCTGTAGCTTCACAGCATATTTTATGTAATCATAAAGACCAGTATATTCCTCCTGCTGA  
ATGACATGCGACTGTAAAGCCTCTTTATAAACCATTTCCTAATGTTAGTATATAGGATTATTTGGGAAGCGTATCA  
ATACCTTTATAGACAAATACGAACATGTATGCACACAAAACATTTAACTATGGTATTTATGGAAGACAGGTAACA  
ACATTAAATCTAGTTGCTTTCCCTTAGTATTAGATTTGTTGAGGGTTTTTTAAAAATCAGGTCTGTTGAAAGTCT  
TCTGTCATAATCTATAAAGCAGCAGCACTCATGGAAATTGTAGCATGCCAGTAATTTTTACCAACATCCCATACA  
TCTGAGTTCTGCAGTCCAGTGTGTAATCCGCTCCATGTGTATTTTGCTTAATGGAATGCTTTATTTAAGCACTTA  
GGCAGAGTAGACACAATTAAAGGTACAAAGCCCAGAGGAAGTGGTAGAGCAGCACCGTGCCTGCCCTGAGGCAGT  
GGAGTCAGTAGCGCTGTCCCCAGGGCCTTGAGTGCCTGGAGGTGCTTGGCCTCCAGTAGCTGCCTCCATTCTCTT  
TTAAAAAAGGGGGTGATTCTGAGGCACTGAAGTGCCTCCAGATGTGGAGGAGTGAAGCCACCATCGAGGCCAC  
ACTCAGCACTCCAGGATCCAGCGATGTCAGACACTCTTGAGTTGTCAAACGTTAATTTTCAGTTTTAAATAAT  
CAGTTTATCTAAGAAAAGGGAATTTTAACTTTTCTACCTTGAGCCAAGCCAATGAAGGGAAAATTAATTAACCTA  
GTAAATTTGAAGTGCAGCTCTGTTAGCTCGTACATGTGGGTCTTATCCTGATCCTGTGCCTTAAAGTAGGAAGG  
TGTTTCCAAGTTCAGATTAAAATAGAAGCAGCTGGCCGGGTGCGGTGGCTCACGCCTGTAATCCCAGCACTTTGG  
GAGGCCGAGGCGGGCGGATGACCTGAGGTGAGGAGTTCAAGACCAGCCTGGCCAACATGGAGAAACCCCATCTTT  
ACTAAAAATACAAAAATTAGCCGGGCGTGGTGGTGGAGCGCACGCCTGTAGTCCCAGCTACTCGGGAGGCTGAGG  
CAGGAGAATTGCTTGAACCCAGGAGGCGGAGGTTGCAGTGAGCCAAGATCGCACCCTGCACTCCAGCCTGGGCA  
ACAGAGTGAGACTCCGTCTCAAAAAATAAATAAAATAGAAGCAGCCTTGTAACCTGTATTTACCATGATAATATAT  
TCTGCACGGTAAGAATTCCTTTTACAGACATTCTTTATCAAGAGGTGCGCCCTTCTTTTTTCAGGCACATAAGCCA  
AATGCAGGCCTGTGTGTAGCTGTGTGTTTTTCTGTGGTTGCCGCAATTTATTCCACCTCCAGCTGGACCCCCAC  
TGCAAAATAGAGAACAGCGGTGGGGGATGGGGGTAAAAAGTAGAGAACCTCCTTTCTGTTCAACTAATTTACGCT  
GACAGTGCATGTATTTATTCAATAAAACCTTTATGTTAGCTC



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**FIGURE 1248**

AGCGGGTTTGCGGGAGCGCCGCGTGGTTAGCGTCGGCGGCTTTTGGC**ATG**GCGACTTTTTCTGGCCCGGCTGGGC  
CAATCCTGTCGCTTAATCCGCAGGAAGATGTCGAGTTTCAAAAGGAGGTGGCGCAGGTTGCAAGCGCATAACCC  
AGCGAAAAAACAAGAACAACCTACTCCTGGAGTAGTCTATGTGCGCCACCTACCTAACCTACTTGACGAAACCC  
AGATCTTTTCATATTTCTCCAGTTTGGCACTGTGACACGGTTCAGGCTGTCCAGAAGTAAAAGGACTGGAAATA  
GCAAAGGCTATGCATTTGTGGAGTTTGAGTCTGAGGATGTTGCCAAAATAGTTGCTGAAACAATGAACAACCTACC  
TGTTTGGTGAAAGACTCTTGGAGTGTCAATTTATGCCACCTGAAAAAGTACATAAAGAACCTTTTAAAGACTGGA  
ATATTCCATTTAAGCAGCCATCATATCAATCAGTGAAACGGTATAATCGGAATCGGACACTAACACAAAAGCTAC  
GGATGGAGGAGCGATTTAAAAAGAAAGAAAGATTACTCAGGAAGAAATTAGCTAAAAAAGGAATTGACTATGATT  
TTCCTTCTTTGATTTTACAGAAAACGGAAAGTATTTCAAAAACCTAATCGTCAGACGTCTACAAAAGGCCAGGTTT  
TACGTAAGAAGAAGAAAAAGTTTTCAGGTACTCTTGACACTCCTGAGAAGACTGTGGATAGCCAGGGCCCCACAC  
CAGTTTGTACACCAACATTTTTGGAGAGGCGAAAATCTCAAGTGGCTGAACTGAATGATGATGATAAAGATGATG  
AAATAGTTTTTCAACAGCCCATATCCTGTGTAAAAGAAGAAATACAAGAGACTCAAACACCTACACATTACGGA  
AAAAAGACGAAGAAGCAGCAATCAG**TGA**TTTTTCAATGTATTATATTTCTTTTGAAAAATATAATATTTTTATGA  
GAGTGGACTTTGTATTTCACTAGGTACAATGGAATACAACCTTTGACAAGATTTTCAGAGGAAAAATACACTGTT  
TGGTCAAGTTAAGGAAAGCAGTGTGTAATTTTGGATTGCCTGCCCTTGGCTGAAATACAGGGGTGCATACCATCT  
TGCAGTGGCTTGGCTGACATTGCCTCTTTGTCTGGCCTCTAGTTTTCTTTTGATATTTTCATAGCTCTCCTTAGT  
TTACTCTGCCTGGATAGAAAGTTGACCACTAACTGCAGGTTTAAGTACTAACTGCAGCCTTTTTCTGTGCGCCAGC  
AATTAAAGACCACCAATCTTGTGTGTCATCTACATGGTTTGTGCGGGACATTTAACTCATGGAGGTGCTTTAGA  
TTTCAACATCAGATGGTTGAAGCTGGAAGTTTAATTATATGTAGAGTGAGAAGGCAGTTCCAGTTTTAGCACAGA  
TTTGTATATGTGTTTCAATTTAATAGAGATTCAAAAATGACTCATTTTTACCAATAATGTTAAATTAGTTTTGG  
TTGTGCTAGCATGAATTAATAACCACCATTTTATACCAGTATCATCAGTGAAGAATTGTATTTCAAGATTCAAAC  
AATAACCAGCAATTAAACTTTTTTCTACAATGTATTTGTTTGCAGTAGGACTTGGGAGTCATTGGAAAAAAA  
ATAATAAATTTTCCCCTTCATTAACAAAAA

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**FIGURE 1249**

MATFSGPAGEILSLNPQEDVEFQKEVAQVRKRITQRKKQEQLTPGVVYVRHLPNLLDETQIFSYFSQFGTVTRFR  
LSRSKRTGNSKGYAFVEFESEDAKIVAETMNNYLFGERLLECHFMPPEKVHKELFKDOWNIPFKQPSYQSVKRYN  
RNRTLQKLMEERFKKKERLLRKKLAKKGIDYDFPSLIILQKTESISKTNRQTSTKGQVLRKKKKKVSGTLDTPE  
KTVDSQGPTPVCTPTFLERRKSQVAELNDDDKDDEIVFKQFISCVKEEIQETQTPTHSRKKRRRSSNQ

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**FIGURE 1250**

GGCGCTCCGCCTGCTGCGCGTCTACGCGGTCCCCGCGGGCCTTCCGGGCCCACTGCGCCGCGCGGACCGCCTCGG  
GCTCGGACGGCCCGGTGTCCCCGGCGCGCCGCTCGCCCGGATCGGCCGCGGCTTCGGCGCCTGGGGCTCGGGGCTC  
CGGGGAGGCCGTGCCCCGCGATGCTGCTCTCCAAGTTCGGCTCCCTGGCGCACCTCTGCGGGCCCGGCGGCGTGG  
ACCACCTCCCGGTGAAGATCCTGCAGCCAGCCAAGGCGGACAAGGAGAGCTTCGAGAAGGCGTACCAGGTGGGCG  
CCGTGCTGGGTAGCGGCGGCTTCGGCACGGTCTACGCGGGTAGCCGCATCGCCGACGGGCTCCCGGTGGCTGTGA  
AGCACGTGGTGAAGGAGCGGGTGACCGAGTGGGGCAGCCTGGGCGGCGCGACCGTGGCCCTGGAGGTGGTGTGC  
TGCGCAAGGTGGGCGCGGCGGGCGGCGCGCGCGCGTCACTCCGCTGCTGGACTGGTTCGAGCGGCCCGACGGCT  
TCCTGCTGGTGTGGAGCGGCCCGAGCCGGCGCAGGACCTCTTCGACTTTATCACGGAGCGCGGCGCCCTGGACG  
AGCCGCTGGCGCGCCGCTTCTTCGCGCAGGTGCTGGCCGCCGTGCGCCACTGCCACAGCTGCGGGGTGCTGCACC  
GCGACATTAAGGACGAAAATCTGCTTGTGGACCTGCGCTCCGGAGAGCTCAAGCTCATCGACTTCGGTTCCGGGTG  
CGCTGCTCAAGGACACGGTCTACACCGACTTCGACGGCACCCGAGTGACAGCCCCCGGAGTGGATCCGCTACC  
ACCGCTACCACGGGCGCTCGGCCACCGTGTGGTTCGCTGGGCGTGCTTCTCTACGATATGGTGTGTGGGGACATCC  
CCTTCGAGCAGGACGAGGAGATCCTCCGAGGCCGCCTGCTCTTCCGGAGGAGGGTCTCTCCAGAGTGCCAGCAGC  
TGATCCGGTGGTGCCTGTCCCTGCGGCCCTCAGAGCGGCCGTGCTGGATCAGATTGCGGGCCATCCCTGGATGC  
TGGGGGCTGACGGGGGCGCCCCGGAGAGCTGTGACCTGCGGCTGTGCACCCTCGACCCTGATGACGTGGCCAGCA  
CCACGTCCAGCAGCGAGAGCTTGTGAGGAGCTGCACCTGACTGGGAGCTAGGGGACCACCTGCCTTGGCCAGACC  
TGGGACGCCCCCAGACCCTGACTTTTTCTGCGTGGGCGGTCTCCTCCTGCGGAAGCAGTGACCTCTGACCCCTG  
GTGACCTTCGCTTTGAGTGCCTTTTGAACGCTGGTCCCGCGGGACTTGTTTTCTCAAGCTCTGTCTGTCCAAAG  
ACGCTCCGGTCGAGGTCCCGCCTGCCCTGGGTGGATACTTGAACCCAGACGCCCCCTCTGTGCTGCTGTGTCCGG  
AGGCGGCCTTCCCATCTGCCTGCCACCCGGAGCTCTTCCGCGGCGCAGGGTCCCAAGCCACCTCCCGCCCT  
CAGTCTGCGGTGTGCGTCTGGGCACGTCTGACACACAATGCAAGTCTGGCYTCCGCGCCCCGCCCCACG  
CGAGCCGTACCCGCCGCCAACTCTGTTATTTATGGTGTGACCCCTGGAGGTGCCCTCGGCCCACCGGGGCTATT  
TATTGTTTAATTTATTTGTTGAGGTATTTTCTCTGAGCAGTCTGCCTCTCCCAAGCCCCAGGGGACAGTGGGGA  
GGCAGGGGAGGGGGTGGCTGTGGTCCAGGGACCCAGGCCCTGATTCTGTGCCTGGCGTCTGTCTGGCCCCGC  
CTGTGAGAAGATGAACATGTATAGTGGCTAACTTAAGGGGAGTGGGTGACCCTGACACTTCCAGGCACTGTGCCC  
AGGGTTTGGGTTTTAAATTATTGACTTTGTACAGTCTGCTTGTGGGCTCTGAAAGCTGGGGTGGGGCCAGAGCCT  
GAGCGTTTAAATTATTCAGTACCTGTGTTTGTGTGAATGCGGTGTGTGCAGGCATCGCAGATGGGGGTTCTTTCA  
GTTCAAAAGTGAGATGTCTGGAGATCATATTTTTTTATACAGGTATTTCAATTAAAATGTTTTTGTACATAGAAA  
AAAAAAAAAAAAAAAAAAAAAGGGCGG

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**FIGURE 1251**

## FIGURE 1252A

GACCGCGGCTGCAGGAACGGAGGCGGAAGGGGCCCTGCGGCGACGACGTCGTCGACGGGGGTGGCCGTGGGAGCT  
GAGCACGGAGAAGACTCCCTCTCTCGGAAGCCGGATCCCGAGCCGGGCAGGATGGATCACCACCAGCCGGGGACT  
GGGCGCTACCAGGTGCTTCTTAATGAAGAGGATAAATCAGAATCATCGGCTATAGAGCAGCCACCTACTTCAAAC  
CCAGCACCGCAGATTGTGCAGGCTGTGTCTTCAGCACCAGCACTTGAACTGACTCTTCCCTCCACCATATAGT  
AGTATTACTGTGGAAGTACCTACAACCTCAGATACAGAAGTTTACGGTGAGTTTTATCCCGTGCCACCTCCCTAT  
AGCGTTGCTACCTCTCTTCTACATACGATGAAGCTGAGAAGGCTAAAGCTGCTGCAATGGCAGCTGCAGCAGCA  
GAAACATCTCAAAGAATTGAGGAGGAAGAGTGTCCACCAAGAGATGACTTCAGTGATGCAGACCAGCTCAGAGTG  
GGGAATGATGGCATTTCATGCTGGCATTTCATGGCATTATTTTCAACTGGCTTGGATTTTGTATCCTTC  
TGTATACCAATACCATAGCTGGAAGGTATGGTGCTATCTGCGGATTTGGCCTTTCCTTGATCAAATGGATCCTT  
ATTGTCAGGTTTTCTGATTATTTTACTGGATATTTCAATGGACAGTATTGGCTTTGGTGGATATTTCTTGACTT  
GGCCTGCTCCTTTTCTTCAGAGGATTGTTAATTATCTAAAAGTCAGAAACATGTCTGAAAGTATGGCAGCTGCT  
CATAGAACAAGGTATTTCTTCTTATTGTAGAGACTGCATCAACCCGACATTCCTTTCTTATACCAATGTGAAATT  
TCCAGATCATCTGTAAACCTACAACCTTTAATAGAAGACTACTAATAACAGAAGACAAATTAGTGAAGAAAAGACG  
GAGTTTTCGAAATTGAATGGCAGGGTGGTTTTTGGCTTACAAGCCATTTCTGTTTCATTCTTTAAGTATCTATATTTT  
ATTTGTTTTGCACATATGCATATGTGCCCATTTAAGATATTTGCATATACTTGATAGAAACCATAAAGTTGTAGC  
AGTTAAGTCCAGTCACATTTGGTTAATCAGTGTTTGATATAATTGAAAGAGTTGAGTGGATAAACAGTCTTCCAG  
CTTGTAATGCCATTGACTTCTGACCTGACATTTAGTATAATAAAAAATGAAATTCCTAACCATGTCAAATGATTT  
AGTTTCTGGCTCTTAGACTCATCTGGCAGTTCTACACATGAAACATCTTTTGTATATAAGGTGTATTGAAACCT  
GCAGTGCTGATTATTAGAAAGGATTTGTCGGATTTTGAACATGATATTTACATTATTATTTAGGAAAACCTCTC  
CTGTAAATAACCATGCATAACTTACTTTCTGCAATGTTTTCTTAGAAATTGTGTCCAGATAGCTTTCATAATTT  
TAAATTAAGTGAACATAATATATATGTGTATATGTATACACATATATATACACACACATATATATATTTAGAA  
ACGTGAGTGTTAAAGATAGAATTTGTTTTAGGACAAATTTTAAAGAAATGTGGGAATACCAAATGTCCTTTATAA  
GAAAAATAAATTTTGTTTTAAAGGGACATACCAGTTTTAGGGATTTTCAGATGGGAAGCTGCATTTTTAGGATTGC  
CCATCTTAAGAGATCTTGCAAGGAAGAGATTGTATTAGATATTATATTTATTTTCATTTAAGATAATTTTCAAAGTT  
AATTTTCTAAATAAGATAATTTCTCATTGTGTTGTCTTTTAAAGGCCAATAAAATATCTTTCAGTATCATTGT  
AATAATTTTTTAGAGTTTAAATTTGTAAAGCTTAGCAAATAAAATCTTGACTATGAATAGCTTCTTGCTTTATGA  
CTTTAGGATTAACCTTGTAATAAACATATCCTGAACTGAGATATGCAAAATACTCATTTCAGTTATGGAAATGT  
GTTTGTGGCATATAGGACTGTGGGGTCTGTGTGTGTAGTGAGAGTGTGTAGCCACTATTATAACTGGAATTTAAT  
TTACATTATAAACTACTATATTTCCCATCTTGCAATCATTTTATGTCTCATCTGTTTTTCTTTTCGGTTATAT  
CTTTGGTTTTGAATACCAACATTTAAATGATGGTATTTTATCTTTTAACTTAAAAATTATTTAATACAGCTAT  
ATGGACCTTATAAAATTGATTTCTTATTTATTATTAGACATTACTACTAAAAGGTACATCTAACTATTTCAGGGAC  
ATTTTTCCATTTCCAAAAATAAAATTTATTATGCTTTATAACCTCTTCTGTATTTTCTAATTTTTTTCATTGTCT  
TTGATAAATAAAACAGTTTTGTTTTGCTAATATAGCCTATTTTTTGTGTTGCTCATTAGTTTACTTTCTGCG  
TAGAATTTTTATTGTTATATTAATAATTTTATTGTTGTATTAAAGTACCTGTGTTACACCCCTTGAAGTAAGACA  
GTAGCATGGGGTAAAGAAAAAATATTTAGTTTGTGCTAATTTGGAAGTTAATTAATAAATAAAGTACTAAT  
AACATATTCAAACCTCATGCTGGATCTCTTTCATATTAATTTCTTATAGACCTGTACTTTATCTTTCAATAATTT  
TTAAATGAAATTAAGCTTTGCTACATGGTAATTAATAAATAAATACTAGGAAGCTTAGCTATCAAACATCGACTTACT  
AAAATTTCAATTTTAGCTTTTATGGTATATGTGCTTGTGTTTCTGAATATGGATACATGTTACTTTTGATCCAGCAT  
CAAACTTCATTTTGTGTTTGTGCTTTTCCCCCAATCTGTAAGGTTCAAGTATACATATTACTGAATCCTCTA  
TAATTGGCATAATTCAATGGTAGCCTTAAATCTCATCATGTAAGCAGGGGAATCAGAATGTTATTTTCAAGAACT  
TAATGTTCCCTTCAGATATATAAAATCCTGCATACCTTCATTTCTGTGAGCTTGAACAGCTGCTGTTGTGTTTTG  
GGGATGCTTGATCATCTTTGCACTCTGCCTTAAAGATTGAAAAATCAAACTCTTGTTAGGGTATCTAAACATTT  
TTGAGTGTGAAGTGGGGATTGGAAGTTAATACAAAAAATTTCAAATTATTTCTATTGTAAATGAATAAGCTAGT  
CATGGCTAGGATAATCCATTTTCATGTATTTATGCAATAAACTGAATTTTAAAGGCAAAAACAACACTTTTCTATA  
TAGTGTATGCAGGACAGATTTTAGAACTTAGATTAAATACAAATCCCATTACATTTGGTTAAATGAATCTCT  
GCTTAATGAAAAAATACTAATCTTTAGCCTATTTTGAGTCTATAAGATATATTTCAATTTAGACATGCCTTCTA  
AGTTGTTACAGATTTTACCTGCTAAAACAATATTATTTCCAGTAAACCTCTCCTAACAGGAAAAGTGGAGTT  
CAAAATATCCAATTGGAGAAAAATTCAGAGTTCCTTCATTAAATATAATTTTTTTCATCTAGTATGTACTATTTT

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**FIGURE 1252B**

AAGAAGTGCAAAAAGTAATGATAGTGAATGTGATACCATACTTAACTAAGGTAATATATATCCTTAGTTTGCTCA  
AAAGAGTCCTGGTTATTCCTGTTTTCTCAGCTTAATAGTGCCTCATCGTACTCTCAAAGTGTTCTAATTTGGAG  
GATAAGTTATATGATCATCCTGTGTATAATTGTAGACTGTACCAAGAAGCAACTACCTTAGCTCCACTGCCCTTT  
GAGGGATGGAAGTGGGGTAAGGGCAGGAGCCAGTTATTATTGCCACAGTGTTTTCTAATGAACCATTTGGCCTGT  
AGAAGAGGAATAGTATTTTTTTTTTAATAGTTGTATTTGAATGATTCCAGCTTATCGTAAATACTAAACTGAATGGC  
TTTTATATTTTAACTGCTGTTAAATGTTATTTTAGCATTTATTAGTTGTTTATTATTTAATTCTTCAAATAGTC  
ATATGAAAACATATATTTGATAAAGGTCAATTGTTAGATGATAATGTGCCATTCAATTATCATAGGAATGTCCTTG  
CCCATATATAAAACATGCTGGCATGTATTTTACTTGTTAATAAAGTTGTATAGATGTGGAAGTGGAACCTGTGA  
TGCATCCTTTTCAAATCAGTTTAAAGATTGCGATATTATCATGACTGTGACCTCACTAAACTGTTTATGTGACAA  
ACCTTTCAAGATTGGAGATGAAAACAACACTTGTGAAATTAGGTTGGGGTTGCAACATCTTTTAACTTCTCAGTT  
ATTTGTATGTCAGGAAACAGATTGTGGTTTAATTTAATAAACAAAATATCATCTTTTTGAAAAT

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**FIGURE 1253**

DRGCRNGGGRGPAATTSSSTGVAVGAEHGEDSLSRKPDPEPGRMDHHQPGTGRYQVLLNEEDNSESSAIEQPPTSN  
PAPQIVQAVSSAPALETDSSPPPYSSITVEVPTTSDTEVYGEFYVPPPYSVATSLPTYDEAEKAKAAAMAAAAA  
ETSQRIQEEECPPRDDFSDADQLRVGNDGIFMLAFFMAFIFNWLGFCLSFCTINTIAGRYGAICGFGLSLIKWIL  
IVRFSDYFTGYFNGQYWLWWIFLVLGLLLFFRGFVNLYLKVRNMSESMAAAHRTRYFFLL

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**FIGURE 1254A**

GACCGCGGCTGCAGGAACGGAGGCGGAAGGGGCCCTGCGGCGACGACGTCGTCGACGGGGGTGGCCGTGGGAGCT  
GAGCACGGAGAAGACTCCCTCTCTCGGAAGCCGGATCCCGAGCCGGGCAGGATGGATCACCACCAGCCGGGGACT  
GGGCGCTACCAGGTGCTTCTTAATGAAGAGGATAACTCAGAATCATCGGCTATAGAGCAGCCACCTACTTCAAAC  
CCAGCACCGCAGATTGTGCAGGCTGTGTCTTCAGCACCAGCACTTGAAACTGACTCTTCCCCTCCACCATATAGT  
AGTATTACTGTGGAAGTACCTACAACCTCAGATACAGAAGTTTACGGTGAGTTTATCCCGTGCCACCTCCCTAT  
AGCGTTGCTACCTCTCTTCTACATACGATGAAGCTGAGAAGGCTAAAGCTGCTGCAATGGCAGCTGCAGCAGCA  
GAAACATCTCAAAGAATTGAGGAGGAAGAGTGTCCACCAAGAGATGACTTCAGTGATGCAGACCAGCTCAGAGTG  
GGGAATGATGGCATTTCATGCTGGCATTTCATGGCATTATTTTCAACTGGCTTGGATTTTGTATCCTTC  
TGTATACCAATACCATAGCTGGAAGGTATGGTGCTATCTGCGGATTGGCCTTTCCTTGATCAAATGGATCCTT  
ATTGTCAGGTTTTCTGATTATTTTACTGGATATTTCAATGGACAGTATTGGCTTGGTGATATTTCTTGACTT  
GGCCTGCTCCTTTTCTTCAGAGGATTGTTAATTATCTAAAAGTCAGAAACATGTCTGAAAGTATGGCAGCTGCT  
CATAGAACAAGGTATTTCTTCTTATTGTAGAGACTGCATCAACCCGACATTCCTTTCTTATACCAATGTGAAATT  
TCCAGATCATCTGTAAACCTACAACCTTTAATAGAAGACTACTAATAACAGAAGACAAATTAGTGAAGAAAAGACG  
GAGTTTCGAAATTGAATGGCAGGGTGGTTTTTGCTTACAAGCCATTTCTGTTTATTCTTTAAGTATCTATATTTT  
ATTTGTTTTGCACATATGCATATGTGCCATTTAAGATATTTGCATATACTTGATAGAAACCATAAAGTTGTAGC  
AGTTAAGTCCAGTCACATTTGGTTAATCAGTGTTTGATATAATTGAAAGAGTTGAGTGGATAAACAGTCTTCCAG  
CTTGTAATGCCATTGACTTCTGACCTGACATTTAGTATAATAAAATGAAATCTTAACCATGTCAAATGATTT  
AGTTTCTGGCTCTTAGACTCATCTGGCAGTTCTACACATGAAACATCTTTTGTATATAAGGTGTATTGAAACCT  
GCAGTGCTGATTATTAGAAAGGATTTGTCGGATTTTGAACATGATATTACATTATTATTTAGGAAAACCTTTC  
CTGTAAATAACCATGCATAACTTACTTTCTGCAATGTTTTCTTAGAAATTGTGTCCAGATAGCTTTCCTAATTT  
TAAATTAAGTGAACATAATATATATGTGTATATGTATACACATATATATACACACACATATATATATTTAGAA  
ACGTGAGTGTTAAAGATAGAATTTGTTTTAGGACAAATTTTAAAGAAATGTGGGAATACCAAATGTCCTTTATAA  
GAAAAATAAATTTTGTTTTAAAGGACATACCAGTTTTAGGGATTTTCAGATGGGAAGCTGCATTTTLAGGATTGC  
CCATCTTAAGAGATCTTGACGGAAGAGATTGTATTAGATATTATATTTATTTTCAATTAAGATAATTTTCAAAGTT  
AATTTTCTAAATAAGATAATTCTCATTGTGTTGTCTTTTAAAGGCCAATAAAATATCTTTCAGTATCATTGT  
AATAATTTTTTAGAGTTTAAATTTGTAAAGCTTAGCAAATAAAATCTTGACTATGAATAGCTTCTTGCTTTATGA  
CTTTAGGATTAACCTTGTAATAAACATATCCTGAACCTGAGATATGCAAAATACTCATTTCAGTTATGGAAATGT  
GTTTGTGGCATATAGGACTGTGGGTCTGTGTGTGTAGTGAGAGTGTTAGCCACTATTATAACTGGAATTTAAT  
TTACATTCATAAACTACTATATTTCCCATCTTGCAATCATTTTATGTCTCATCTGTTTTTCTTTTCGGTTATAT  
CTTTGGTTTTGAATACCAACATTTAAATGATGGTATTTTATCTTTTAACTTAAATTTAATATACAGCTAT  
ATGGACCTTATAAAATGATTTCTTATTTATTATTAGACATTACTACTAAAAGGTACATCTAACTATTTCAGGGAC  
ATTTTTCATTTCCAAAAATAAAATTTATTATGCTTTATAACCTCTTCTGTATTTTCTAATTTTTCATTGTCT  
TTGATAAATAAAACAGTTTTGTTTTGCTAATATAGCCTATTTTGTGTTGCTCATTTCAGTTTACTTTCTGCG  
TAGAATTTTATTGTTATATTAAATTTTATTGTTGTATTAAAGTACCTGTGTTACACCCCTTGAAGTAAGACA  
GTAGCATGGGGTAAAGAAAAATATTAGTTTAGTTGCCTAATTTGGAAGTTAATTTAAATTTAACTGTACTAAT  
AACATATTCAAACCTCATGCTGGATCTCTTTCATATTAATTTCTTATAGACCTGTACTTTATCTTTCAATAATTT  
TTAAATGAAATTAAGCTTTTGCTACATGGTAATTAATAATTACTAGGAAGCTTAGCTATCAAACATCGACTTACT  
AAAATTTTCAATTTTATGCTTTTATGGTATATGTGCTTGTGTTTTCTGAATATGGATACATGTTACTTTTGATCCAGCAT  
CAAACTTTCATTTTGTGTTTTGACTTTTCCCCCAATCTGTAAGGTTCAAGTATACATATTACTGAATCCTCTA  
TAATTTGGCATAATTCAATGGTAGCCTTAAATCTCATCATGTAAGCAGGGGAATCAGAATGTTATTTTCAAGAACT  
TAATGTTCCCTTCAGATATATAAAATCCTGCATACTTCATTTTCTGTGAGCTTGAACAGCTGCTGTTGTGTTTTG  
GGGATGCTTGATCATCTTTCAGCTCTGCCTTAAAGATTGAAAAATCAAACTCTTGTTAGGGTATCTAAACATTT  
TTGAGTGTAAGTGGGATTGGAAGTTAATACAAAAAATTTCAAATTTATTTCTATTGTAAATGAATAAGCTAGT  
CATGGCTAGGATAATCCATTTTATGTATTTATGCAATAAACTGAATTTTAAAGGCAAAACAACACTTTTCTATA  
TAGTGTATGCAGGACAGATTTTAGAACTTAGATTAAATACAAATCCCATTACATTTGGTTAAATGAATCTCT  
GCTTAATGAAAAAATACTAATCTTTAGCCTATTTTGAGTCTATAAGATATATTTTCAATTTTAGACATGCCTTCTA  
AGTTGTTACAGATTTTACCTGCTAAACAATATTATTTCCAGTAAACCTCTCCTAACAGGAAAAGTGGAGTT  
CAAAATATCCAATTGGAGAAAAATTCAGAGTTCTTTCATTAAATATAATTTTTTTCATCTAGTATGTACTATTTT



**FIGURE 1254B**

AAGAAGTGCAAAAAGTAATGATAGTGAATGTGATACCATACTTAACTAAGGTAATATATATCCTTAGTTTGCTCA  
AAAGAGTCCTGGTTATTCCIGTTTTCTCAGCTTAATAGTGCCTCATCGTACTCTCAAAGTGTTCTAATTTGGAG  
GATAAGTTATATGATCATCCTGTGTATAATTGTAGACTGTACCAAGAAGCAACTACCTTAGCTCCACTGCCCTTT  
GAGGGATGGAAGTGGGGTAAGGGCAGGAGCCAGTTATTATTGCCACAGTGTTCCTAATGAACCATTGCGCTGT  
AGAAGAGGAATAGTATTTTTTTAATAGTTGTATTTGAATGATTCCAGCTTATCGTAAATACTAACTGAATGGC  
TTTTATATTTTAACTGCTGTAAATGTTATTTTAGCATTATTTAGTTGTTTATTATTTAATTCTTCAAATAGTC  
ATATGAAAACATATATTTGATAAAGGTCAATTGTTAGATGATAATGTGCCATTCAATTATCATAGGAATGTCCTTG  
CCCATATATAAAACATGCTGGCATGTATTTTACTTGTTAATAAAGTTGTATAGATGTGGAAGTGTGAACCTGTGA  
TGCATCCTTTTCAAATCAGTTTAAGATTTCGCATATTATCATGACTGTGACCTCACTAACTGTTTATGTGACAA  
ACCTTTCAAGATTGGAGATGAAAACAACACTTGTGAAATTAGGTTGGGGTTGCAACATCTTTTAACTTCTCAGTT  
ATTTGTATGTCAGGAAACAGATTGTGGTTTAATTTTAATAAACAAAATATCATCTTTTTGAAAAT

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**FIGURE 1255**

ACAGGAAGTGAAGAGCTTCCGCCGGGAGACCGCGGCTGCAGGAACGGAGGCGGAAGGGGCCCTGCGGCGACGACG  
TCGTCGACGGGGGTGGCCGTGGGAGCTGAGCACGGAGAAGACTCCCTCTCTCGGAAGCCGGATCCCCAGCCGGGC  
AGG**ATG**GATCACCACCAGCCGGGGACTGGGCGCTACCAGGTGCTTCTTAATGAAGAGGATAACTCAGAATCATCG  
GCTATAGAGCAGCCACCTACTTCAAACCCAGCACCGCAGATTGTGCAGGCTGCGTCTTCAGCACCAGCACTTGAA  
ACTGACTCTTCCCCCTCCACCATATAGTAGTATTACTGTGGAAGTACCTACAACCTCAGATACAGAAGTTTACGGT  
GAGTTTTATCCCGTGCCACCTCCCTATAGCGTTGCTACCTCTCTTCTACATACGATGAAGCTGAGAAGGCTAAA  
GCTGCTGCAATGGCAGCTGCAGCAGCAGAAACATCTCAAAGAATTGAGGAGGAAGAGTGTCACCAAGAGATGAC  
TTCAGTGATGCAGACCAGCTCAGAGTGGGGAATGATGGCATTTCATGCTGGCATTTCATGGCATTATTTTC  
AACTGGCTTGGAATTTGTTTATCCTTCTGTATCACCAATACCATAGCTGGAAGGTATGGTGCTATCTGCGGATTT  
GGCCTTTCTTGATCAAAATGGATCCTTATTGTGAGTTTTCTGATTATTTTACTGGATATTTCAATGGACAGTAT  
TGGCTTTGGTGGATATTTCTTGTACTTGGCCTGCTCCTTTTCTTCAGAGGATTTGTTAATTATCTAAAAGTCAGA  
AACATGTCTGAAAGTATGGCAGCTGCTCATAGAACAAAGGTATTTCTTCTTATTG**TAG**AGACTGCATCAACCCGAC  
ATTCTTTCTTATACCAATGTGAAATTTCCAGATCATCTGTAAACCTACAACCTTTAATAGAAGACTACTAATAAC  
AGAAGACAAATTAGTGAAGAAAAGACGGAGTTTTCGAAATTGAATGGCAGGGTGGTTTTTGCTTACAAGCCATTTT  
TGTTCAATCTTTAAGTATCTATATTTCAATTTGTTTTGCACATATGCATATGTGCCCATTTAAGATATTTGCATAT  
ACTTGATAGAAACCATAAAGTTGTAGCAGTTAAGTCCAGTCACATTTGGTTAATCAGTGTTTGATATAATTGAAA  
GAGTTGAGTGGATAAACAGTCTTCCAGCTTGTAATGCCATTGACTTCTGACCTGACATTTAGTATAATAAAAT  
GAAATCTTAACCATGTCAAATGATTTAGTTTCTGGCTCTTAGACTCATCTGGCAGTTCTACACATGAAACATCT  
TTTGTTATATAAGGTGTATTGAAACCTGCAGTGCTGATTATTAGAAAGGATTTGTCAGATTTTGAACATGATAT  
TTACATTATTATTTAGGAAAACCTCTCCTGTAAATAACCATGCATAACTTACTTTCTGCAATGTTTTCTTAGAAA  
TTGTGTCCAGATAGCTTTCACTAATTTTAAATTAAGTGAACATAATATATATGTGTATATGTATACTCATATATA  
TACACACACACATATATATATCTAGAAACGTGAGTGTTAAAGATAGAATTTGTTTTAGGACAAATTTTAAGAA  
AATGTGGGAATACCAAATGTCCTTTATAAGAAAAATAAATTTTATTTTAAGGGACATACTAGTTTTAGGGATTTT  
CAGATGGGAAGCTGCATTTTTAGGATTGCCATCTTAAGAGATCTTGCAGGAAGAGATTGTATTAGATATTATAT  
TTATTTCAATTTAAGATAATTTTCAAAGTTAATTTTCTAAATAAGATAATTCTCATTGTGTTTGTCTTTTAAAG  
GCCAATAAAATATCTTTCAGTATCATTGTAATAATTTTTTAGAGTTTAATTTGTAAAGCTTAGCAAATAAAATCT  
TGTACTATGAATAGCTTCTTGCTTTATGACTTTAGGATTAACCTTGTAACCAACATATCCTGAACTGAGATATGCA  
AAATACTCATTTCAGTTATGGAATGTGTTTGTGGCATATAGGACTGTGGGGTCTGTGTGTGTAGTGAGAGTG  
TGTAGCCACTATTATAACTGGAATTTAATTTACATTCAATAAACTACTATATTTCCCATCTTGCAATCATTATTTAT  
GTCTCATCTGTTTTTCCCTTCGGTTATATCTTTGGTTTTGAATACCAACATTTAAATGATGGTATTTTATCTTT  
TAACTTAAAAATTATTTAATACAGCTATATGGACCTTATAAAATTGATTTCTTATTTATTATTAGACATTACTA  
CTAAAAGGTACATCTAACTATTCAGGGACATTTTCCATTTCCAAAAATAAAATTTATTATGCTTTATAACCTC  
TTCTGTATTTTCTAATTTTTTTCATTGTCTTTGATAAATAAAACAGTTTGTGTTTGCT

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**FIGURE 1256**

MDHHQPGTGRIYVLLNEEDNSESSAIEQPPTSNPAPQIVQAASSAPALETDSSPPPYSSITVEVPTTSDTEVYGE  
FYPVPPPYSVATSLPTYDEAEKAKAAAMAAAAAETSQRIQEEECPPRDDFSDADQLRVGNDGIFMLAFFMAFIFN  
WLGFLSFCITNTIAGRYGAICGFGLSLIKWILIVRFSYFTGYFNGQYWLWWIFLVLGLLLFFRGFVNYLKVRN  
MSESMAAAHRTRYFFLL

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**FIGURE 1257A**

GCCTTATAAGTGGTTTAGTGCTCAGTTGGCTCTAGTAACCAGAGGACACAGAAAGTATCTTTTGGAAAGTTTAGC  
CACCTGTGCTTTCTGACTCAGAGTGCATGCAACAGTTAGATCATGCAACAGTTAGATTATGTTTAGGGTTAGGAT  
TTTCAAAGAATGGAGGTTGCTGCACTCAGAAAATAATTCAGATCATGTTTATGCATTATTAAGTTGTAAGTGAATT  
CTTTGCAGCTTAATGTGATATATGACTATCTTGAACAAGAGAAAAAACTAGGAGATGTTTCTCCTGAAGAGCTTT  
TGGGGTTGGGAAGTATTCTTTTTTAATTGCTGTACTACTTAACATTGTTCTAATTCACTAGCTTGAGGAACAGGA  
ACATTGTTTTCTAGAGCAAGATAATAAAGGAGATGGGCCATACAAATGTTTTCTACTTTCTGTTGTGACAACATTG  
ATTAGGTGTTGTCAGTACTATAAATGCTTGAGATATAATGAATCCACAGCATTCAAGGTCAGGTCTACTCAAAGT  
CTCACATGGAAAAGTGAGTTCTGCCTTTCTTTTGATCGAGGGTCAAAAATACAAAGACATTTTTTGCTAGGGCCTAC  
AAATTGAATTTAAAACTCACTGCCTGATTCATCTGAGCTTTTGGTTAGTATTCAAGGCTAGAGTGAACATAGC  
TTTAGTTTTTGTCTGTGTAAGTGTTCATAAGTTCACTCAAGAAAAATGCAGCTGTTCTGAAGTGAATTTTT  
CAGCATTCTTTAGAATTTTAAATGAGTAGAGAGCTCAACTTTTTATTCTTAGCATCTGCTTTTGACTCATTTCTAG  
GCAGTGCTTATGAAGAAAAATTAAAGCACAAACATTCTGGCATTCAATCGTTGGCAGATTATCTTCTGATGACAC  
AGAATGAAAGGGCATCTCAGCCTCTCTGAACCTGTAAAAATCTGTCCCCAGTTCTTCCATCGGTGTAGTTGTTGC  
ATTTGAGTGAATACTCTCTTGATTTATGTATTTTATGTCCAGATTGCGCATTCTGAAATCCAGATCCAACACAA  
GCAGTCTTGCCGTTAGGGCATTGTGAAGCAGATAGTAGAGTAAGAACTTAGTGACTACAGCTTATTCTTCTGTAA  
CATATGGTTTTCAAACATCTTTGCCAAAAGCTAAGCAGTGGTGAAGTGAAGGAGGATATTGCCCCAAGGTTACAC  
TGAAGCAGCTCATAGCAAGTTAAATATTGTGACAGATTTGAAATCATGTTTGAATTTCATAGTAGGACCAGTAC  
AAGAATGTCCCTGCTAGTTTCTGTTTGATGTTTGGTTCTGGCGGCTCAGGCATTTTGGGAAGTGTGACAGGGT  
GGAGTCAAAAACAACCTACATATAAAAAGAGAAAAAGAGAACTTGTCATTAGCTTTTATAAGAAATCCCATGG  
CAAAGGGTAATAAAAAGGACCTAATCTTAAAAATACAATTTCTAAGCACTTGTAAGAAGGAGTGGGTTGGAGCC  
TCCCACCTTTGTCCCTCTTTGAAGTGGATGGGAAGTCAAGGTGCAAGAACCTGTTTGGGAAGAAAGCTTGGGGC  
CATTTCAAGCCCCCTGTATTCTCATGATTTTCTCTCAGGAAGCACACACTGTGAATGGCAGACTTTTCATTTAGCC  
CCAGGTGACTTACTAAAAATAGTTGAAATATTTCACCTAAGAATAGAATCTCAGCATTGTGTTAAATAAAAAATG  
AAAGCTTTAGAAGGCATGAGATGTTCTATCTTAAATAAAGCATGTTTCTTTTCTATAGAGAAATGTATAGTTTG  
ACTCTCCAGAATGTACTATCCATCTTGATGAGAAAACCTCTTAAATAGTACCAAACATTTTGAAGCTTTAAATTATG  
TATTTAAAGTGAGTGTAAAGAACTGTAGCTGCTTCTTTTACAAGTGGTGCCTATTAAAGTCAGTAATGGCCAT  
TATTGTTCCATTGTGGAAATTAAATTATGTAAGCTTCTTAATATCATAAACATATTAAATTTCTTCTAAAAATATT  
GCTTTTCTTTTAAAGTGACAATTTGACTATTCTTATGATAAGCACATGAGAGTGTCTTACATTTTCCAAAAGCAGG  
CTTTAATTGCATAGTTGAGTCTAGGAAAAATAATGTTAAAGTGAATATGCCACCATAATTACTTAATTATGTT  
AGTATAGAACTACAGAAATTTTACCCTGGAAAGAAAATATTGGAATGTTATTATAAACTCTTAGATATTTATAT  
AATTCAAAAGAATGCATGTTTCACATTGTGACAGATAAAGATGTATGATTTCTAAGGCTTTAAAAATTATTTCATA  
AAACAGTGGGCAATAGATAAAGGAAATCTGGAGAAAATGAAGGTATTTAAAGGGTAGTTTCAAAGCTATATATA  
TTTTGAAGGATATATTCTTTATGAACAAATATATTGTAAAAATTTATACTAAGGTATCTGGTAACTGTGGGATT  
AATATGGTTCGAAAACAAATGTTATGGAGAAGCTGTCCCAAGCAAACTAAATTACCTGTACTTTTTTCCCATTTCA  
AGGGAAGAGGCAACCACATGAAGCAATACTTCTTACACATGCCTAAGAACGTTTATTGAAAAATAAATTTTTAA  
AAGGCATGTGTTTCTATGCCACCAATACTTTTGAAGAAATGTGAACCTTACCCAAAACCATTTATCATGTCCAT  
TAAGTATATTTGGGTATATAATTAGGAAGATATTTACATGTTCCATCTCCACAGTGGAAAACTTATTGAGGCTA  
CCAAAGTGTGCCAAGAAATGTAAGTCTTAGAGTAATTAGAAATGCTGTTTTCTCAAAAGCATGAGAACTAGC  
ATTTTCATTTCTTATTTACTCCCTTTCTATATCAATGCAATTCACAACCCCAATTTTAAATACATCCCTATATCTCA  
AGCATTTCTATCTTGACTTTTTTCAGAAAATAAACCAAAAATAATCCTTGGTCTCTCTATCTTCTGACCTTGTA  
GCAACAGAAATGTAAAAACAGAAGGGGTCCAATTTTTTACACGTTTTTTTTCTCAAGTAGCCTTTCTGGGGATTTTT  
ATTTTCTTAATGAAGTGCCAAATCAGCTTTTCAAATGTTTTCTATTTCTCAGCATTTCAGGAAGTGATAACGTT  
TAGCTAAATGAGTAGAAGTGGACTTCTTCAACATATTGTTACCTTGCTAGCCTTAGGAAGAAAACAAGAGCCA  
CCTGAAAATAAATACAGGCTCTTTTCGAGCATCTGCTGAAATACTGTTACAGCAATTTGAAGTTGATGTGGTAGG  
AAAGGAAGGTGACTTTTCTTGCAAAGTCTTTCTAAACATTCACACTGCTTAAGAGATGAGCTTTCTTGTTTTA  
TTCCGGTATATTCCACAAGGTGGCACTTTTAGAGAAAAACAATCTGATGAAGACTAAAGAGGTACTTCTAAAAG  
AGATTTCAATTCTAAGTTTATTTTTCTGCGCATATTTAACTCTTCTTAGCACTTGTTTTTTGGGATGATTAATAG  
TCTCTATAATGTTCTGTAACCTCAATATTTTACTTGTTACCTAGGTTCTGAACAATTGTCTGCAATAAATTGTT

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**FIGURE 1257B**

CTTAAGGATGGATAATACACCCATTTTGATCATTTAAGTAAAGAAAGCCTAGTCATTTCATTTCAGTCAAGAAAAA  
 TTTTGAAGTACCCAGTTACCTTACTTTTCTAGATTAAAAACAGGCTTAGTTACTAAAAAGGCAGTCCTCATCTGT  
 GAACAGGATAGTTTCGTTAGAAGTATAAACTCCTTTAGTGCCCCAGTTAAACACACATACCCTCTCTGCTGC  
 TTTCAAATTCCTTAGCATGGTGGCCTTTCAACATTGATTAAATTTTAAATCCTAATTTAAAGATCAGGTGAGCA  
 AAATGAGTAGCACATCAGTAATTCAGTAGACAAAACCTTTGTCTGAAAAATTGCTGTATTGAAACAGAGCCCTAA  
 AATACCAAAAGACCAGGTAATTTTAAACATTTGTGGAATCACAAATGTAAATTCATAAGAAGCTCTAATTAAGAAA  
 AAAAAGTCTGAAGTATATGAGCATAACAACCTTAGGAGTGTGTCTACATACTTAACTTTTGAAGTTTTTGGCAAC  
 TTTATATACTTTTTTTTAAATTTACAAGTCTACTTAAAGACTTCTTATACCCCAAATGATTAAAGTTAATTTAGAG  
 GTCACCTTTCTCACAGCAGTGTCACTTGAAATTTAGTAGGGAAGGATATTGCAGTATTTTTCAGTTTCCTTAGCA  
 CAGCACCACAGAAAGCAGCTTATTCCTTTTGAAGTGGCAGACACTCGACGGTGCCTGCCCAACTTTCTCTCTGAGT  
 GGCAAGCAGATGAGTCTCAGTAATTCATACTGAACCAAAATGCCACATACACTAGGGGCAGTCAGAACTGGCTG  
 AGAAATCCCCCGCCTCATTGCCCCCTCTGCTCCCAGGAACTAGAGTCCAGTTAAAGCCCCCTATGCGAAAGGCCGA  
 ATTCCACCCCAGGGTTTGTATAACAGTGGCCAGTCTGAACCCCATTTGCTCGTGCTCAAACTTGATTCCCCT  
 TGAAAGCCTTCCGGGCGCGCTGCCTCGTTGCCCCGCCCTTTGGCAGGAGAGAGGCAGTGGGCGAGGCCGGGCTG  
 GGGCCCCGCCTCCCACTCACCTGCCGGTGCCTGAAATTATGTGCGGCCCGCGGGCTGCTTTCCGAGGTGAGAGT  
 GCCCTGCTGCTGTCTCAGAGGCATCTGTTCTGCAAATCTTAGGAAGAAAAATGTCCCTAGTAGCAAACGGGTGTC  
 TTCTGTGCATAAATAAGTACAACAATTTCTCCGAAAGTTCGGGTAAAAAGAGATGCGGTAGCAGCTGCCCTGTG  
 TGAAGCTGTCTACCCCGCATCTCTCAGGCGCTAAGCTCAGTTTTTGTGTTTTGTTTTGTTTTTAAAGAAAAGA  
 TGTATAATTGCAGGAATTTTTTTTTTATTTTTTATTTTCCATCATTCTATATATGTGATGGTGAAAGATATGCCT  
 GGAAAAGTTTTGTTTTGAAAAGTTTATTTTCTGCTTCGTCTTCAGTTGGCAAAAGCTCTCAATTCCTTAGCTTCC  
 AGTTTCTTTTCTCTCTTTTTCTTTGTTAGGTAATTAAGGTATGTAAACAAATTATCTCATGTAGCAGGGGATTT  
 TCATGTTGAGAGGAATCTTCCGTGTGAGTTGTTTGGTCACACAAATAACCCTTTCTCAATTTTAGGAGTTTGGAT  
 TGTCAAATGTAGTTTTTTCTCAAAGGGGGCATATACTACATATTGACTGCCAAGAACTATGACTGTAGCACTAA  
 TCAGCACACATAGAGCCACACAATTATTTAATTTCTAACTCTCTGTGGTCCCTAGAAAAATTCCGTTGATGTGCT  
 TAGGTTAAAGTTCTGAAGATA<sup>Δ</sup>CCGTTGTACCCTTACTTGAAAGTTTCTAATCTTAAGTTTTATGAAATGCAATA  
 ATATGTATCAGCTAGCAATATTTCTGTGATCACCAACAACCTCTCAGTTTGATCTTAAAGTCTGAATAATAAAACA  
 AATCCCAGCAGTAATACATTTCTTAAACCTCACAGTGCATGATATATCTTTTCTATTCTGATCCTGTGTTTGCAAA  
 AATATACACATGTATATCATAGTTCCCTCACTTTTTATTTCATTTGTTTTCTATTACCTGTAGTAAATATATTAGT  
 TAGTACATGGAATTTATAGCATCAGCTACCCCCAGGAACAGCACCTGACAGGCGGGGGATTTTTTTTCAAGTTGT  
 TCTACATTTGCATAAATTATTTCTATTATTATTTCATGTATGTTATTTATTTCTGAATCACACTAGTCCTGTGAAA  
 GTACAACTGAAGGCAGAAAGTGTAGGATTTTGCATCTAATGTTTCATTATCATGGTATTGATGGACCTAAGAAAA  
 TAAAAATTAGACTAAGCCCCCAAATAAGCTGCATGCATTTGTAACATGATTAGTAGATTGAAATATATAGATGTA  
 GTATTTGGGTATCTAGGTGTTTTATCATTATGTAAAGGAATTAAGTAAAGGACTTTGTAGTTGTTTTATTAA  
 ATATGCATATAGTAGAGTGCAAAAATATAGCAAAAATAAAACTAAAGGTAGAAAAGCATTTTAGATATGCCTTA  
 ATTTAGAACTGTGCCAGGTGGCCCTCGGAATAGATGCCAGGCAGAGACCAGTGCCTGGGTGGTGCCTCCTCTTG  
 TCTGCCCTCATGAAGAAGCTTCCCTCACGTGATGTAGTGCCCTCGTAGGTGTCATGTGGAGTAGTGGAACAGGC  
 AGTACTGTTGAGAGGAGAGCAGTGTGAGAGTTTTTCTGTAGAAGCAGAACTGTCAGCTTGTGCCTTGAGGCTTCC  
 AGAACGTGTCAGATGGAGAAGTCCAAGTTTCCATGCTTCAGGCAACTTAGCTGTGTACAGAAGCAATCCAGTGTG  
 GTAATAAAAAAGCAAGGATTGCCTGTATAATTTATTATAAAAAATAAAGGGATTTTAAACAACCAACAATCCCAACA  
 CCTCAAAAAGCTTGTGCAATTTTTTGGTATTTGAGGTTTTTATCTGAAGGTTAAAGGGCAAGTGTGTTGGTATAGAA  
 GAGCAGTATGTGTTAAGAAAAGAAAAATATTGGTTCGCGTAGAGTGCAAATTAGAACTAGAAAGTTTTATACGAT  
 TATCATTTTGAAGATGTGTTAAAGTAGGTTTTCTACTGTAAATGTATTAGTGTCTGCAATGCCATAGGGCCTGG  
 TTAACACTTTCTCTTAGGTTTTCAGGAAGACTGTCACATACAGTAAGCTTTTTTCTCTGACTTATAATAGAAAA  
 TGTTTTGAAAGTAAAAAATAAATCTAATTTGGAAATTTGACTTGTTAGTTTCTGTGTTTGAATCATGGTTC  
 TAGAAATGTAGAAATTGTGTATATCAGATACTCATCTAGGCTGTGTGAACCAGCCCAAGATGACCAACATCCCCA  
 CACCTCTACATCTCTGTCCCTGTATCTCTTCTTCTACCCTAAAGTGTTCCTGCTACCATCCTGGCTTGTGTC  
 CACATGGTGTCTCCATCTTCTCCACATCATGGACCACAGGTGTGCCTGTCTAGGCCTGGCCACCCTCCCAAC  
 TTGACCTAGCCACATTCATCTAGAGATGGTTCCTGATGCTGGGCACAGACTGTGCTCATGGCACCCATTAGAAAT

**FIGURE 1257C**

GCCTCTAGCATCTTTGTATGCATCTTGATTTTTAAACCAAGTCATTGTACAGAGCATTTCAGTTTTGGCTGTGGTA  
CCAAGAGAAAACTAATCAAGAATATAAACACATTCCAGGCTGCTGTTTTCTCTCCATCTACAGGCCACACTTT  
TACTGTATTTCTTCATACTTGAAATTCATTCTGCTATTTTCATATCAGGTACAGACTTATAAGGGTGCATGTTT  
CTTAAAGGTGCATAATTATTCTTATTCCGTTTGCTTATATTGCTACAGAATGCTCTGTTTTGGTGCTTTGAGTTC  
TGCAGACCCAAGAAGCAGTGTGGAAATTCAGTGCCTGGGACACAGTCTTATAAGAATGTTGGCAGGTGACTTTGT  
ATCAGATGTTGCTTCTCTTTTTCTCTGTACACAGATTGAGAGTTACCACAGTGGCCTGTCGGGTCCACCCTGTGGG  
TGCAGCACAGCTCTCTGAAAGCAAGAACCCTTCCTACCTATTCTAACGTTTTTGCCCTCTAAGAAAAATGGCCTCA  
GGTATGGTATAGACATAGCAAGAGGGGAAGGGCTGTCTCACTCTAGCAACCATCCCTCCATTACACACAGAAAGC  
CCTCTTGAAGCAAAAGAAGAAGAAAGAAAGCTTATCTCTAAGGCTACTGTCTTCAGAATGCTCTGAGCTGA  
ATGCTCTTGCTCCTTTCCCAAGAGGCAGATGAAAATATAGCCAGTTTATCTATACCCTTCCTATCTGAGGAGGAG  
AATAGAAAAGTAGGGTAAATATGTAACGTAAAATATGTCAATTCAAGGACCACCAAACTTTAAGTACCCTATCAT  
TAAAAATCTGGTTTTTAAAAGTAGCTCAAGTAAGGGATGCTTTGTGACCCAGGGTTTTCTGAAGTCAGATAGCCATT  
CTTACCTGCCCCTTACTCTGACTTATTGGGAAAGGGAGAAGTGCAGTGGTGTTTTCTGTTGCAGTGGCAAAGGTAA  
CATGTCAGAAAATTCAGAGGGTTGCATACCAATAATCCTTTGGAAACTGGATGTCTTACTGGGTGCTAGAATGAA  
AATGTAGGTATTTATTGTCAGATGATGAAGTTCATTGTTTTTTTCAAAATTGGTGTTGAAATATCACTGTCCAAT  
GTGTTCACTTATGTGAAAGCTAAATTGAATGAGGCAAAAAGAGCAAATAGTTTGTATATTTGTAATACCTTTTGT  
ATTTCTTACAATAAAAAATATTGGTAGCAAATAAAAAATAATAAAACAATAACTTTAACTGCTTTCTGGAGATGA  
ATTACTCTCCTGGCTATTTTCTTTTTTACTTTAATGTAAAATGAGTATAACTGTAGTGAGTAAAATTCATTAAAT  
TCCAAGTTTTAGCAGAAAAA

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**FIGURE 1258**

PYKWFSAQLALVTRGHRKYLLESLATCAF

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**FIGURE 1259**

GGGGCGGAGAGAGGCGAGCACCGGGAAGGGGAGCGTGGGGCCGCTGGAATGGGTGAATTTAAGGTCCATCGAGTA  
CGTTTCTTTAATTATGTTCCATCAGGAATCCGCTGTGTGGCTTACAATAACCAGTCAAACAGATTGGCTGTTTCA  
CGAACAGATGGCACTGTGGAAATTTATAACTTGTGAGCAAACTACTTTCAGGAGAAATTTTCCAGGTCATGAG  
TCTCGGGCTACAGAAGCTTTGTGCTGGGCAGAAAGGACAGCGACTCTTTAGTGCTGGGCTCAATGGCGAGATTATG  
GAGTATGATTTACAGGCGTTAAACATCAAGTATGCTATGGATGCCTTTGGAGGACCTATTTGGAGCATGGCTGCC  
AGCCCCAGTGGCTCTCAACTTTTGGTTGGTTGTGAAGATGGATCTGTGAAACTATTTCAAATTACCCAGACAAA  
ATCCAGTTTGAAAGAAATTTTGATCGGCAGAAAAGTCGCATCCTGAGTCTCAGCTGGCATCCCTCTGGTACCCAC  
ATTGCAGCTGGTTCCATAGACTACATTAGTGTGTTTGATGTCAAATCAGGCAGCGCTGTTTCATAAGATGATTGTG  
GACAGGCAGTATATGGGCGTGTCTAAGCGGAAGTGCATCGTGTGGGGTGTGCGCTTCTTGTCCGATGGCACTATC  
ATAAGTGTGGACTCTGCTGGGAAGGTGCGATTCTGGGACTCAGCCACTGGGACGCTTGTGAAGAGCCATCTCATC  
GCTAATGCTGACGTGCAGTCCATTGCTGTAGCTGACCAAGAAGACAGTTTCGTGGTGGGCACAGCCGAGGGAACA  
GTCTTCCATTTTCAGCTGGTCCCTGTGACATCTAACAGCAGTGAGAAGCAGTGGGTGCGGACAAAACCGTTCCAG  
CATCACACTCATGACATGCGCACTGTGGCCACAGCCCAACAGCGCTGATATCTGGAGGCACTGACACCCACTTA  
GTCTTTTCGTCTCTCATGGAGAAGGTGGAAGTAAAGAATTACGATGCCGCTCTCCGAAAAATCACCTTTCCCCAC  
CGATGTCTCATCTCCTGTTCTAAAAAGAGGCAGCTTCTCCTCTCCAGTTTGCTCATCACTTAGAACTTTGGCGA  
CTGGGATCCACAGTTGCAACAGGCAAGAATGGGGATACTCTTCCACTCTCTAAAAATGCAGATCATTTACTGCAC  
CTAAAGACAAAGGGTCCTGAGAACATTATCTGTAGCTGTATCTCCCCATGTGGAAGTTGGATAGCCTATTCTACA  
GTTTCTCGGTTTTTTCTCTATCGGCTGAATTATGAACATGACAACATAAGCCTCAAAGGGTTTTCCAAATGCCA  
GCATTCTTCGCTCTGCCCTTCAGATTTTGTCTTCTGAAGATTCAACAAAGCTCTTTGTAGCATCAAATCAAGGA  
GCTCTGCATATTGTTTCAGCTGTCAGGAGGAAGCTTCAAGCACCTGCATGCTTTCCAGCCTCAGTCAGGAACAGTG  
GAGGCCATGTGTCTTTTGGCAGTCAGTCCAGATGGGAATTGGCTAGCTGCATCAGGTACCAGTGCTGGAGTCCAT  
GTCTACAACGTAAAAACAGCTAAAGCTTCACTGCACGGTGCCTGCTTACAATTTCCCAGTGAAGTGTATGGCTATT  
GCCCCCAATACCAACAACCTTGTCTATCGCTCATTTCGGACCAGCAGGTATTTGAGTACAGCATCCCAGACAAACAG  
TATACAGATTGGAGCCGACTGTCCAGAAGCAGGGCTTTTACCACCTTTGGCTCCAAAGGGATACTCCTATCACA  
CACATCAGTTTTCATCCCAAGAGACCGATGCACATCCTTCTCCATGATGCCTACATGTTCTGCATCATTGACAAG  
TCATTGCCCCCTTCCAAATGACAAAACCTTACTCTACAATCCATTTCTCCACGAATGAATCAGATGTATCCGG  
AGGCGCACAGCTCATGCTTTTAAATTTCTAAGATATATAAGCCTCTACTCTTCATGGATCTTTTGGATGAAAGA  
ACACTCGTGGCAGTAGAACGGCCTCTGGATGACATCATTGCTCAGCTCCCACCACCCATTAAAAAGAAGAAATTT  
GGAACCTTAAACAGGGCACTGTCTGTGTCCTTCCTTGAAGTGTCTACCCTGTTGCTTTTACAAATCATGGTAAT  
AAAACAAGTTATCTTG



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**FIGURE 1260**

MGEFKVHRVRFFNYVPSGIRCVAYNNQSNRLAVSRDGTVEIYNLSANYFQEKFFPGHESRATEALCWAEGQRLF  
SAGLNGEIMEYDLQALNIKYAMDAFGGPIWSMAASPSGSQLLVGCEDGSVKLFQITPDKIQFERNFDRQKSRLS  
LSWHPSTHIAAGSIDYISVFDVKSGSAVHKMIVDRQYMGVSKRKCIVWGVAFSLDGTIISVDSAGKVQFWD SAT  
GTLVKSHLIANADVQSI AVADQEDSFVVGTAEGTVFHFQLVPVTSNSSEKQWVRTKPFQHHTHDMRTVAHSPTAL  
ISGGTDTHLVFRPLMEKVEVKNYDAALRKITFPHRCLISCSKKRQLLLFQFAHHLELWRLGSTVATGKNGDTLPL  
SKNADHLLHLKTKGPENIICSCISPCGSWIAYSTVSRFFLYRLNYEHDNISLKRVS KMPAFLRSALQILFSEDST  
KLFVASNQALHIVQLSGGSFKHLHAFQPQSGTVEAMCLLAVSPDGNWLAASGTSAGVHVYNVKQLKLHCTVPAY  
NFPVTAMAIAPNTNNLVIAHSDQQVFEYSIPDKQYTDWSRTVQKQGFHHLWLQRDTPITHISFHPKRPMHILLHD  
AYMFCIIDKSLPLPNDKTL LYNPFPPPTNESDVIRRRTAHAFKISKIYKPLL FMDLLDERTLVAVERPLDDIIAQL  
PPPIKKKKFGT

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**FIGURE 1261**

GAATTCGGCACGAGAATGAGCCCCACAGAATAAAGGTTTTTCTCTTGCTGTGGCCTACTGGAAGCCTTCCTAAC  
TCTATAGCTGGTAAAGTAGAGCAGAAAGGGCCAGAATGGCTTAAGATGGAGCTAAATCCCTATAGCATTCCATTT  
TCTGCTCTTGCTCTTGAACCTAGAAAGGCTTGCCCATATATCCTAACAACTCTGTTCTCTGAGCTGTTAGGCCAAT  
CCCTGGTCTCAAACCTCCTGACCTCAGGTGATCCACCCACTATGGCCTCCCAAGGTGCTGGGATTGCAGATGTGAG  
CCACCGTGCTGGCCAGAAAACTGGATTCTTATTCCTAGTTCTTCATTCTGTGCACATGCACCTTAGTTGACATT  
ACATCTACATATATTAGCTTTTTCTACATGAGCCATCTATTTACTTAGTAACCAAGTGTCTTAATGAAGTATTT  
AGTCTTGGGTTTTCTTGTAATAATTTCTCTGCATTCTCTTAGACAGTGTACTATACATGAAATATTCTTGTTGACCTA  
GTAATTTATATTATTCCATTTAATTCTTAAACCTATGGCCTTTTTATTGAGCACACTCTTAAATCATTATTTGGC  
TTGTAAACATTTCATCTGAATTGTGGCTACAATCCTCTTTAAATAATCTAGGAAAAAAGAAAGATAAAGCTTACAT  
TTTCACAGTTTTTGGCTCTTAAACACATTCCACAAATGCCATTAAGAATTTATTTTGTGTTTTAGGCCAGTCATGGTG  
GCTCATGCCTGTAATCCCAGCAATTTGGGAGGCTGAGGCAAGAACTGCTTGAGCCCAGGAGTTTGAGACTAGCCT  
GGGCAACATAGCAAGACCCTGTCTCTACCAAAAAAAAAAAGTTTTATTTTGTGTTTTAGAGTCATTTAATGTGTTTT  
TATGCACAATAATAGTGGGAGGTTGTTTTGTGTCATTTGTTTGTGTTTTGTTTTGTTTTGTTTTGTTTTGCCAT  
GTGGGAAAAGTTAACATTGGAAGTGTCTTAGTAAAAGATTTTTTTCAGGCTGGGCACGGTGGCTCATGCCTGTG  
ATCCCAACACTTTGGGAGACCGAGGGAGCTGGATCACCTGAGGTCAGGAGTTCGAGACCAGCCTGGCCAACATGG  
AAAACTCCATCTCCACTAGAAATACAAAAGTAGCCTGGTGTGGTGGCACATGCCTGTAATCCCAGCTACTTGGG  
AAGCTGAGGCAGGAGAATCACTTGAACCTGGGAGGTGGAGGTTGCAGTGAGCCAAGATCACGCCATTGCACTCCA  
GCCTGGGCAACAAGAGTGAACTCCGTCTCAAAAAAAAAAAAAAAAAAAGATGTTTTTCATTTTTTCATGTTATC  
TATCCAAGCACTGTTCCATGGTCAGCAAGTCATATTTTATAATGTGGATTTTCCAAAATAATTATTGAATACAGC  
TATTCTATGGCTACTTTTAGTGTTTTTGTGGTATGTGGTGTGGGAGTGTGTTATGGAATTACCAGTATCTTAAATT  
TTCAAAGGAACCTTGGAAGTCTATCACTCTAAATGAAAGTCTGTCACTCTACATGAATTATGTGCTCAAATTTGA  
CCAACCTCAGTTTAAAGACACAAAACAGTAATTTGAAGAAGGAAAAATGAAGAGAGTTTCTAGTTTAAATGGGTAA  
TTTTTGTGTTGCAATAGTAAGTTTAGTCTTCTTATAATATTTCTAAATGAAAAATCATAGGTATTTGTTACCAT  
GTGTGAAGATTACTTTGTGTTAAAGCAAAAGTGGTCTGTGTGATATGCTAAATGTTAATTACTGATTTTATATGTTT  
AAATCACGCCAAACAAATTATGTCTGTGCCATCCAGGGTCTGTTGTTAATCTTTTTCTGAGTACTTGGATTGGGA  
TAAAGGGCTTGTAATATGCACTTTTTTATTAATGAATAAATAGAAAACGTTAGTAACACTTTGTGTTTTCTGTTTG  
GCTTTTTGTGGGAAGAGAAGCAAGCATCTTTTGCCTAGTAGATGTTAACATTGTGTATTAAACAGTTTCTTTGTAA  
GACCTAACTAAAGACATTCTTAAGAGAGAACTTAAGTTTTAAGAAAAGTTGTGAGAAAAATATTCATAAAATATG  
CAGTATGGGGCCAGTATTCAGAAGTAGAGTTTCTCTCTTGGAATTAGATTGCAGTCACATTTCTTTGGTTATTT  
TCTTTCTCTCTCTCTTCTCTAGAAATACCAGGTAAATAGACATTTACTTTGAGGGACTAATATCCAATAGTGTTAA  
TTATTTAAGCAGATATATCTAGCTCAAAAGGAACCAGACATGTCACTGTACCAAAAACACACAAAAGTGAAAATT  
TGCTTCTGTTCTGTGACCTAGAATGTGTCCAGACATTAAAGATCATGAATACTCATATACATGTAAAAATAGTAA  
CACTGCTCTGGCATGATTTTGACGTCAGTGTGTTATGTAATAACTTCAGTGTTATATTTAAATAGATAAAATTTGT  
GAAATAACAATTTCTTGAGACAGTCAACTTTTTATGATTTAATCTAAAGATTGTGATGTACATGTCAACGGATA  
TCTGAATCCTCAGTGAACTGTAAAGTTTTTATTAAATGACTCTGCTGCAATACTAGTTTTCTTCTCAGAAAATG  
GAATTCAAATAAAATAAGTTTTTTGGTCTTGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1262**

MHLVDITSTYISFFLHEPSIYLVTSVLNEVFSLGFLVKFLCIP

ACGCGGCCCAACGACGCCGCCGACTGGAGCCCTGACATTGCTGCGCTCGGGGGGCTCCAGGACGCCCGTATCGGG  
GCCTTTATTTCTCGTCGGCGGGCGCCCTGCACCGCGCCTCGCAAAGCCAAACACCAGAGCACCTAGAAAGGTTTAA  
CTAAAAGAATGCTCATGTTTGACCCAGTTCCTGTCAAGCAAGAGGCCATGGACCCTGTCTCAGTGTACATCCCAT  
CTAATTACATGGAATCCATGAAGCCTAAACAAGTATGGGGTCATCTACTCCACACCATTGCCTGAGAAAGTTCTTTT  
AGACCCCAGAAGGTCTGTGCGACGGAATACAGATGGAGCCAGTGGACCTCACGGTGAACAAGCGGAGTTACCCCC  
CTTCGGCTGGGAATTTCGCCCTCCTCTCTGAAGTTCCCGTCTCTACACCGGAGAGCCTCGCCTGGGTTGAGCATGC  
CTTCTTCCAGCCCACCGATAAAAAAATACTCACCCCCCTTCTCCAGGCGTGCAGCCCTTCGGCGTGCCGCTGTCCA  
TGCCACCAGTGATGGCAGCTGCCCTCTCGCGGCATGGAATACGGAGCCCGGGGATCCTGCCCGTCATCCAGCCGG  
TGGTGGTGCAGCCCGTCCCCTTTATGTACACAAGTCACCTCCAGCAGCCTCTCATGGTCTCCTTATCGGAGGAGA  
TGGAAAATTCCAGTAGTAGCATGCAAGTACCTGTAATTGAATCATATGAGAAGCCTATATCACAGAAAAAAATTA  
AAATAGAACCTGGGATCGAACCACAGAGGACAGATTATTATCCTGAAGAAATGTCACCCCCCTTAATGAACTCAG  
TGTCCCCCCCCGAAGCATTGTTGCAAGAGAATCACCCCTTCGGTCATCGTGCAGCCTGGGAAGAGACCTTTACCTG  
TGGAATCCCCGGATACTCAAAGGAAGCGGAGGATACACAGATGTGATTATGATGGATGCAACAAAGTGACACTA  
AAAGCTCCCACCTTGAAAGCACACAGAAGAACACACACAGGAGAAAAACCCTACAAATGTACATGGGAAGGGTGCA  
CATGGAAGTTTGCTCGGTCTGATGAACTAAACAAGACATTTCCGAAAACATACTGGAATCAAACCTTTCCAGTGCC  
CGGACTGTGACCGCAGCTTCTCCCGTTCTGACCATCTTGCCCTCCATAGGAAACGCCACATGCTAGTCTGATTGTC  
CTCTGTGTCTTGCCCTCAGCGTGACTCCCCACTCACCTGGCTCTCTCTCTGTCTTGCCCTCCATTATCTAACACAT  
TTTTTACATGTACATTTTAATTTGATTGAGCTGGTCTGAATCTCTGAATTTATATCATCCAAAACCTTCCATATGG  
TCAGTAGTAGATGTTCTCTAATCCTCCCTCTCCTTACCACGGGTGAGACCTAAAGAATGTGAACACTTTTTTTTT  
TTTTTCTGGGGATGCTAAGCAAACCCCTTCTTACAGATACGTTTAAATGTAATAAGAACAAGGGAACATGTAAACTA  
ACATAACCAATTGTGAGTTCTCCATGTATTCTTCAAAGAATGTGAGAGTAAATGTATTAGAAATACAGTATCCA  
GACTGCTAGTCTTTGCCAGAGACATTCTTACCTCTGCCCTGTGATAATATTTTATGCTTGACAGTGAAAAACAAGT  
GTGGCCCCCTTGACCGGTTAGCTAGAAGTACAGCCAGATTTCAAGCTAGTGCAGTCACCTCTTCCGTCAATTCTTC  
ACAAATCTTGTCAACCTGGATCTTAGACTTCATCTGAATCGAGTTCTTTGCCCTCCTTTGTGCCTGCAGCTCATA  
TGGAGGTCTTTGCCACCAATGGGAGATGAGCCCAAACCTTCGATCTAGGTGGGTGATGTGTAGCAGTTCAAGGGA  
AGGGTGCTGTGTTTTTCATAGCATGGAGTCGGAGGAGAGGGCCATTTAGCAGGGGGAGCAGAAGAGGCAATTCCTC  
CTGGGCTAGGGGTGTCAATGAGGTTTCAACATTTTGTTAGCTGTGTGCAGCATTCCAGAGCTTCAGTCTCTGT  
GCATACTCAGCTTTGTAGAACCATGCTGCAAAGCCATATACCGATGGGGTTATCCATGCAACTATCTCCATTCTC  
ACAATGTCCTTAATATGAGATCATCAAACATTGATAGTAGGGACTCCATGGAATATTTGCCAGTAATGGTAAGA  
AATCTTTCGGGTAAAGAGTATGGATGGTTCTTCTTTTACCCAATCTGCTTATAGCTTTTTTTGTAAACAGGGAAAT  
GTTGAGTGGTACTTGTATTCCCTTATCAAATTAATCACATAGCTTTTATACAGAACTCTTCCTGTGTGAGCTGT  
TAAGGTGCCAAATTGGCTGTCAATTTGTATTATGACACATACCATAAAGCATCTGCTAATGCTTTAATGGATTGA  
TTCAATTAAGACCTGAGTGACACTATTTGTAAATATAACTAGTTGTGAAGCACACATACCTTTATTTTGGGAATT  
TATGAGAAAATATAGAAAACCACAGATCAGGGATTCATATATGTAGCTCAAAAATTTCCAAAAGTTTACTGTTAG  
AGTTGGCAATTTCTATCACTATTTAGTGTGAGAACAACTGAAAATAATGGCTCGTGTTTATGTTGAAGATAA  
ATAGCACCATTATTGGGGGAAGTTATTCAAAGCAGGCTTTTGAGCACCATAGTCTAAATGCCAATAAAAAATAAT  
TCATACATAGAAATGTCAATTGGTCCTGAATTTGAAGAAAAGTGAGCAACAGTAGTTAAATGTGGGTGCATATAACC  
AAATTTCCCTTTCATCAAGAATGGAGGAGAAGAGAGAAGAATGAAATCCTGAAGATTATCCAGCCGCAACTCAG  
GATCCAACACAACCTTTAACTGGGAGGAATACATTGTTTGATCATTTTTTAAACATCTGTGAATGAGTGATTCCGG  
AGGCCTGTGAATTGTGTGGGGAGCTTGCTTTGATGGCACTGTGTTAATAAAAGTTGTAGGGACTGTGCACCTAAG  
AGGCTAAGAGGTCCCCTCATCCGCCCTGTGAACCAGCTGTAAAGAAATGTAGTTAAGAAATGCAAAGAAATGTG  
TTATCTTGGCACTTGGGTTTGATTTTCTTTTTTTTAAAGCACTGCAAACTTCTTTAGGATACTAAACATCCTA  
ATTGGGCTGTTTTTTTGTGTTTTGTTTTGTTTTTTCAGCTAAAGGCAAAGATAATTTTTTTTTTTCAGCTGAAGTTTTTC  
TTTTTTGCAACTATGACATGAATTGAGTGATAAAATGGCTCTTTGAAAAGTAGATATTGTCTGTATTGTAAATGC  
TTAGTCATATTATGGAAGGTGTTTCAATTTCTTGAGATGGTTCTTTTCAACACACAAGAATCAAGATGGAACGC  
AAGGAAAATCTTTTTGTTTTGACCGAGGTAACCAGTTTATGTGTGTTCCAATCCATAGAGAAGTGGGGGAAAGGG  
CGAGAAAGGATCAGATTGATCTGGGATCAGCTTTGAGCCTGAGTTTCAAGTATAGCCTCATGGGCATCTCATGGA  
ATTGATGCATTTGCTGTGGCATATTTAAATTTTGTTCAAAAGATTGAAAGCAAGACCTTGCAAGACTCTTAACA

**FIGURE 1263B**

TTACTGTTTCAGCTTGCTTAGATTGTGTTAACAGTTCATTTAACAAAGATCCGTTTTAACTCTGAACAAAAGCAAC  
CCAGAGCGGCCATTCTCTATTCCCATGCTGGTCAATACGCTTTCATTACCAATTGGCCCTTACCAAACTTTTCTT  
ATATATATATTTGTATTTTACTATGATAGTTGAGAAATTTAGCCTCTTAGTCATTTTTAGCTGTTATTGTGGAAG  
ACCTCAAATACAAGATTAGATGCCCTTGAACATGTTTTAATGATGTGTGTCATGTTACTATCAATGGTGATTTC  
ATCGCAATATTTTAAATTGATGAGAATGATTTGTAAACATGAAGTTACTATTACGTAAATTCTGTTTGTTATAGA  
GTTTCTTCAGTTGTTACCCAAGTGTCATCCTAGAGAAGTCAGAAGAATCAGAATCCATCGTATTTTAGAGTTATG  
TGAATCTACATCATAAATGGGCATTAACATTCTAAATTGCTTGGTTTGGAGAATGTGTTAGCAGCATAGCTATAT  
TCAACTAGGGAGATGCTAAATACACAGAAGTTTCAAGAGCCTTGGAACAGAATTACAGGGGAAGTATATATGTAT  
ATGTATATTTTATTAAACACCCATCTGCACTATCAGTATTGCACTAATGTGGAATTTGAAAGACTATTTTGCTGA  
TACTGTATATATGCGCATCTTCCTGATTAGATTGTTGTAAAGACAATCTGAAAGATCTAAGGTTTTAAATAAT  
TTGGTTTGAAAATATACAGTTGTCTTGAAGGAATTGCTGTACATGAAGTTGCTCCGAGCTGTCTTTATTCTC  
TTCTTGGTCAAGGTTAACAATTGCTAAATGATCGCAAATTCACCTAAACAATACATTTACAAAGCCATCTTTACA  
TGCATTAAACGAGGGCTACAACAATATTGTTTTACAAATACTAGCACTTTTTTTTCTGTTATGTACTTAGTGTTA  
GAGGGTCAAATAATCTTTCTGCTTAGCATCTCTTAAACCATACTGCAAATATAGCAGGATTATTACATTTACA  
GTACTTTAATACTTGTATAAACTATGCAGAAATTTTAAATAAAGTGTAATATATTTTATAAGCTAATAAGACTGA  
ATGGGTAAAGGTTTTTAGCATGCGTTAGTATACTTGCAGATACTGAAACATTTTGGTAATCTTTCTTACTAAAGA  
TGTGAATGTTAATGTACCTTCTCTGTTTCTACTCTGTAGTCCAATGGGAATTCAGTAATGACATTTTGTCTATGT  
CAAAGTGTGAACATAAATTTGTACTGTACAGTCCTCATATACTATATACAGTATGCAATATATATTATATACTTG  
TTAATAAAACCATCAGAATATTAAAAAAATCTATGTCGGGTGCGGAGAAAGAGGTAATGAAATGGCAGGAATTC  
GATATCAGC

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**FIGURE 1264**

MLMFDPVPVKQEAMDPVSVSYPSNYMESMKPNKYGVIYSTPLPEKFFQTPEGLSHGIQMEPVDLTVNKRSSPPSA  
GNSPSSLKFPSSHRRASPGLSMPSSSPPIKKYSPPSPGVQPFQVPLSMPPVMAAALSRHGIRSPGILPVIQPVVV  
QVPFMYTSHLQQPLMVSLSEEMENSSSSMQVPVIESYEKPI SQKKIKIEPGIEPQRTDYYPEEMSPPLMNSVSP  
PQALLQENHPSVIVQPGKRPLPVESPD TQRKRRIHRCDYDGCNKVYTKSSHLKAHRRHTTGEKPYKCTWEGCTWK  
FARSDDELTRHFRKHTGIKPFQCPDCDRSFSRSDHLALHRKRHMLV

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**FIGURE 1265**

GGCACGAGGCCTTCGGCCACCCCGCTGACCATGGCAGTGTTTCATGACGAGGTGGAAATCGAGGACTTCCAATA  
TGACGAGGACTCGGAGACGTATTTCTATCCCTGCCCATGTGGAGATAACTTCTCCATCACCAAGGAAGATTTGGA  
GAATGGGGAAGACGTGGCAACGTGTCCTAGCTGCTCTCTCATTATAAAAAGTGATTTATGACAAAGATCAGTTTGT  
GTGTGGAGAAACAGTCCCAGCCCCTTCAGCCAACAAAGAATTAGTTAAATGCTTGAAGAAGCCTTCAGGAATCCAA  
ATCCTGAACATTTGGAATGAGCCAGATAGAAATATCGAATGCAAAGCTACTGGCTTCACAGAGACAACCATTTA  
TGATTTGCTGTTCTGTAAGAGTGTGGATTCTTTCTATCAACTGCTGATATCATCTTCAGGAAGCAAGTCCATAAC  
ATGACATATCTGGATTTTGTGCTTAGAACCTTAAATTGGAAGCATTCTTAATTATGCATCTAAATTTAAAAGAAG  
ATAATTTCAAAACAGTAAAAAAAAAAAAAAAAA

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**FIGURE 1266**

MAVFHDEVEIEDFQYDEDESETYFYPCPCGDNFSITKEDLENGEDVATCPSCSLIIKVIYDKDQFVCGETVPAPSA  
NKELVKC



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**FIGURE 1267**

GGCACGAGGCCAGATACTACTGGCCATCAAGGGACAGAAGAAAAAGGCGCTCATTGTGGGGCACTGCATGCCTGG  
CCCCCGAATGACCCCCAGATTGACTCCAACAACGTGGTCCTCATTGAGGACAACGGGAACCCTGTGGGGACACG  
AATTAAGACACCCATCCCCACCAGCCTGCGCAAGCGGGAAGGCGAGTATTCCAAGGTGCTGGCCATTGCTCAGAA  
CTTTGTGTGAGTTGAGCCCAGGCCTCTGGTTGCAGGACTCGTGAATGGAGCAGTTCTGAGAACCACCCTTTTGCT  
AAGGGAGCTTGGGAGCCACATGGCTGCTCCCTTCACACTGGGTAACAGTGTAGTATCCTGTGAGAGAATAAATGT  
ATTCATTTAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1268**

TCATGGCCGGCTCCTACCCTGAAGGTGCACCTGCAATCCTCGCCGATAAGAGGCAGCAGTTCGGAAGCCGGTTCC  
TGAGCGATCCGGCGCGGGTCTTCCACCACAATGCCTGTTGATTATGAGATCAATGCCACAAATACTGGAATGAC  
TTCTACAAATCCACGAAAATGGGTTTTTCAAGGATAGACATTGGCTTTTTTACCGAATTCCTGAGCTGGCACCT  
AGCCAAAATCAAAATCATTGAAGGATTGGTTCTTGGAGAACAAGAGTGAAGTATGTGAATGTAGAAACAATGAG  
GATGGACCTGGTTTAATAATGGAAGAACAGCACAAAGTGTTCTTTCGAAGAGCCTTGAACATAAAACACAGACACCT  
CCTGTGGAGGAGAATGTAACCTCAGAAAATTAGTGACCTGGAAATTTGTGCTGATGAGTTTCCTGGATCCTCAGCC  
ACCTACCGAATACTGGAGGTTGGCTGTGGTGTGGGAAACACAGTCTTTCCAATTTTACAAACGAACAATGACCCA  
GGACTCTTTGTTTATTGCTGTGATTTTTCTTCCACAGCTATAGAACTGGTCCAGACAAATTCAGAATATGATCCT  
TCTCGGTGTTTTGCCTTTGTTTCACGACCTGTGTGATGAAGAGAAGAGTTACCCAGTGCCCAAGGGCAGTCTTGAT  
ATTATCATTCTCATATTTGTTCTTTCAGCAATTGTTCCAGACAAGATGCAGAAGGCTATCAACAGGCTGAGCAGG  
CTTCTGAAACCTGGGGGGATGGTACTTCTGCGAGATTACGGCCGCTATGACATGGCTCAGCTTCGGTTTAAAAAA  
GGTCAGTGCTATCTGAAAATTTCTATGTGAGAGGTGATGGAACCAGAGTTTACTTCTTCACACAAGAGGAACTG  
GACACGCTTTTACCACCTGCTGGACTGGAAAAAGTTTCAAGACCTGGTGGACCGCCGACTGCAGGTGAACCGAGGG  
AAGCAACTGACAATGTACCGGGTTTGGATTCAAGTCAAAATACTGCAAGCCCCTTCTGTCCAGCACCAGCTAAGAG  
GCACCTGCTGCCAACACGATGCAAGCCCGTTGTGTTTCCGAGCTTTTTTAAAAAAAATTTGTAGCACCGGGCA  
TGGTGCATGCCTGTAATCCCAGCCACTCAGGAGGCTGAGGCAGGGAGGATCCATTGAGCCCAGGAGTCCAGCCTG  
GGCAAAATAGCGAGAGACCCTGAATCTGAAAGTAATGATAAAATAAAAAGAATATAAATGAGGTCTCGTTGATGC  
TGGACAATTCAAGAATTCAGACTTGAACCTTAAACCTAGGAAAAGTTACTTTGTATCAGGATTCTAACAATTATG  
CTTCATATTTGTGAAGTCCTTTAAAACATAATTTTCTCAAGTTCTTTCTTTGAGACCTCAATCTGTCTTAGCATT  
TTGTAACATAAATACTGAAATTTTATTCAAAGGAATTGTAAACCTTAAACCACCAATTTATTTCATGTGAAAAAG  
TGTTATATATGACAAGTGTTTTTTGATTGTAATTGCGTTAAATCTTTGAGAGTGTAATGCCGGGCTAGGCAAT  
TGCAGTTAATACATACAGGGGTTAGTGAAGGGCTTATTAAGTTGTAGGGGAAGCAAGCTGGGAAGAATCAGATCA  
GATATTTTCTGAC

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**FIGURE 1269**

MPVDYEINAHKYWNDFYKIHENGFFKDRHWLFTEFPELAPSQNQNHLKDWFLLENKSEVCECRNNEDGPGLIMEEQ  
HKCSSKSLEHKTQTPPVEENVTKISDLEICADEFPGSSATYRILEVGCVGNTVFPILQTNNDPGLFVYCCDFS  
STAIELVQTNSEYDPSRCFAFVHDLCDDEKSYVPKGSLDIIILIFVLSAIVPDKMQKAINRLSRLLKPGGMVLL  
RDYGRYDMAQLRFKKGQCLSGNFYVRGDGTRVYFFTQEELDTLFTTAGLEKVQNLVDRRLQVNRGKQLTMYRVWI  
QCKYCKPLLSSTS

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**FIGURE 1270**

GC GCGGACCTTTCAACAAGGGCTTTATTAATTCTCACGCTGCGGCCCTGGAAAGCGATGGAGGTGGCGGCTAATT  
GCTCCCTACGGGTGAAGAGACCTCTGTTGGATCCCCGCTTCGAGGGTTACAAGCTCTCTCTTGAGCCGCTGCCTT  
GTTACCAGCTGGAGCTTGACGCAGCTGTGGCAGAGGTAAAACTTCGAGATGATCAATATACACTGGAACACATGC  
ATGCTTTTGGAAATGTATAATTACCTGCACTGTGATTTCATGGTATCAAGACAGTGTCTACTATATTGATACCTTG  
GAAGAATTATGAATTTAACAGTAATGCTGGACACTGCCTTAGGAAAACCACGAGAGGTGTTTCGACTTCCTACAG  
ATTTGACAGCATGTGACAACCGTCTTTGTGCATCTATCCATTTCTCATCTTCTACCTGGGTACCTTGTCAGATG  
GAACTGGAAGATTGTATGTCATTGGAACAGGTGAACGTGGAAATAGCGCTTCTGAAAAATGGGAGATTATGTTTA  
ATGAAGAACTTGGGGATCCTTTTATTATAATTACAGTATCTCACTGCTAAATGCTGAAGAACATTCTATAGCTA  
CCCTACTTCTTCGAATAGAGAAAGAGGAATTGGATATGAAAGGAAGTGGTTTCTATGTTTCTCTGGAGTGGGTCA  
CTATCAGTAAGAAAAATCAAGATAATAAAAAATATGAAATTATTAAGCGTGATATTCTCCGTGGAAAGTCAGTGC  
CACATTATGCTGCTATTGAGCCTGATGGAAATGGTCTAATGATTGTATCCTACAAGTCTTTCACATTTGTTTCAGG  
CTGGTCAAGATCTTGAAGAAAATATGGATGAAGACATATCAGAGAAAATCAAAGAACCTCTGTATTACTGGCAAC  
AGACTGAAGATGATTTGACAGTAACCATACGGCTTCCAGAAGACAGTACTAAGGAGGACATTCAAATACAGTTTT  
TGCCTGATCACAATCAACATTGTACTGAAGGATCACCAGTTTTTAGAAGGAAAACCTCTATTCATCTATTGATCATG  
AAAGCAGTACATGGATAATTAAAGAGAGTAATAGCTTGGAGATTTCTTGATTAAGAAGAATGAAGGACTGACCT  
GGCCAGAGCTAGTAATTGGAGATAAACAAGGGGAACCTTATAAGAGATTCAGCCCAGTGTGCTGCAATAGCTGAAC  
GTTTGATGCATTTGACCTCTGAAGAACTGAATCCAAATCCAGATAAAGAAAAACCACCTTGCAATGCTCAAGAGT  
TAGAAGAATGTGATATTTTCTTTGAAGAGAGCTCCAGTTTATGCAGATTTGATGGCAATACATTAAAACTACTC  
ATGTGGTGAATCTTGAAGCAACCAGTACCTTTTCTCTGTCATAGTGGATCCTAAAGAAATGCCCTGCTTCTGTT  
TGCGCCATGATGTTGATGCCCTACTCTGGCAACCACACTCCAGCAAACAAGATGATATGTGGGAGCACATCGCAA  
CTTTCAATGCTTTAGGCTATGTCCAAGCATCAAAGAGAGACAAAAATTTTTTGCCTGTGCTCCAAATTACTCGT  
ATGCAGCCCTTTGTGAGTGCCTTCGTCGAGTATTCATCTATCGTCAGCCTGCTCCCATGTCCACTGTACTTTACA  
ACAGAAAGGAAGGCAGGCAAGTAGGACAGGTTGCTAAGCAGCAAGTAGCAAGCCTAGAAACCAATGATCCTATTT  
TAGGATTTACAGGCAACAAATGAGAGATTATTTGTTCTTACTACCAAAAACCTCTTTTTAATAAAAGTAAATACAG  
AGAATTAAATTATTCTAACATATTGGCCTCTTTGTACTGGAAAAGTATTCAGTGGTACCTGGAGGTCTGGACAGTT  
ATACTGTAAACCTCTTAAGTTTTAATGTGCTAAATATATCTTGTATGATTTTTTTATTTTTTAATAACATTGGAAAT  
ATATTCAAGAGATTATGATTCTGTAAAGCTGTGGAATGAAGCTGCAGATTTAGAGAACATTGGCTTCTGAAAAAA  
AAAAAGAGTGAAGATAGTACTAGCAAGTATACTTATTTTTTAAACAGGCTAGAATCTCATGTTTTATATGAAAG  
ATGTACAATTCAGTGTTTAAAAATAAAAAATTTTATTGTGTAAAAAAAAAAAAAAAAA

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**FIGURE 1271**

ADLSTRALLILTLRPWKAMEVAANCSLRVKRPLLDPRFEGYKLSLEPLPCYQLELDAAVA EVKLRDDQYTLEHMH  
AFGMYNYLHCDSWYQDSVYYIDTLGRIMNLTVMLDTALGKPREVFRLPTDLTACDNRLCASIHFSSSTWVTLSDG  
TGRLYVIGTGERGNSASEKWEIMFNEELGDPFIIHSISLLNAEEHSIATLLLRIEKEELDMKSGGFYVSLEWVT  
ISKKNQDNKKYEIIKRDILRGKSVPHYAAIEPDGNGLMIVSYKSFTFVQAGQDLEENMDEDISEKIKEPLYYWQQ  
TEDDLTVTIRLPEDSTKEDIQIQFLPDHINIVLKDHFLEGGKLYSSIDHESSTWIIKESNSLEISLIKNEGLTW  
PELVIGDKQGELIRDSAQCAAIAERLMHLTSEELNPNPDKEKPPCNAQELEECDIFFEESSSLCRFDGNTLKTTH  
VVNLGSNQYLF SVIVDPKEMPCFCLRHVDALLWQPHSSKQDDMWEHIATFNALGYVQASKRDKKFFACAPNYSY  
AALCECLRRVFIYRQPAPMSTVLYNRKEGRQVGQVAKQQVASLETNDPILGFQATNERLFLVLT TKNLFLIKVNTE  
N

## FIGURE 1272A

GGGTGGCGGGGGTTGCAAGTGGGAAGCCTGCTGTTTCAGCTGCCCCGGCTCTCCGCCTCCCCCACCCTGTATTG  
AGGCTGGGTCTGGGGAACCTGTGCTCAGCATTCCACCCCCTGGAGCTTGGGCTTGGTCTTCCCTGCGGGTCCCTG  
CGCTGACATTCAGGCGGGGAGCCAGGAGGCCTGGGCGCCTCCAGAGCCCCCGGGGGAGCCGGGCGAGGGTTCTG  
GGCTCTGACGGCGGGGTCGAGGGTCGCCCCGCTCCTGGACACGTCTGTAGGCCTAGGGAAGCCTGCCGGCCCCG  
GAGGTACAGAGTAGGAGAAGCCAGATCCCAGGGCGGACAACGAGAAGTCGTCAGGCTAAGAAATGCGATTTCAAA  
AGGCAGTGAAAGGGACGATTCTTGTGGAGGAGGTGCTCTTGCAACTGTTTTAGGACTTTCTCAGTTTGCTCATT  
ACAGAAGGAAACAAATGAACCTGGCCTATGTTAAAGCAGCAGACTGCATTTAGAACCAGTTAACAGGGAGCCTC  
CTTCCAGAGAAGCTCAGCTACTGACTTTGCAAAACACATCTGAATTTGATATCCTTGTATTGGAGGAGGAGCAA  
CAGGAAGTGGCTGTGCGCTAGATGCTGTACCCAGAGGACTAAAAACAGCCCTTGTAGAAAGAGATGATTTCTCAT  
CAGGGACCAGCAGCAGAAGCACTAAATTGATCCATGGTGGTGTGAGATATCTGCAGAAGGCCATCATGAAGTTGG  
ATATTGAGCAGTATAGGATGGTAAAAGAAGCCCTTCATGAGCGTGCCAACTGCTAGAAATTGCTCCCCATTTAT  
CAGCTCCATTGCCTATAATGCTTCCAGTTTACAAGTGGTGGCAGTTACCTTACTACTGGGTAGGAATCAAGCTGT  
ATGATTTGGTTGCAGGAAGCAATTGCCTAAAAAGCAGTTATGTCTCAGCAAATCAAGAGCCCTTGAACATTTCC  
CAATGCTCCAGAAGGACAACTGGTAGGAGCAATTGTCTACTATGACGGACAACATAACGATGCACGGATGAACC  
TTGCCATTGCTCTGACTGCTGCCAGGTATGGGGCTGCCACAGCCAATTACATGGAGGTAGTGAGCTTGCTCAAGA  
AGACAGACCCCCAGACAGGGAAAGTGCATGTGAGCGGCGCACGGTGAAGGATGTCCTCACAGGGCAGGAATTTG  
ACGTGAGAGCCAAATGTGTTATCAATGCCACGGGACCTTTCACGGACTCTGTGCGCAAAATGGATGATAAAGACG  
CAGCAGCTATCTGCCAGCCAAGTGTGTTGCTCCATATTGTGATGCCTGGTTATTACAGCCAGAGAGCATGGGAC  
TTCTTGACCCAGCGACCACTGATGGGCGAGTTATTTTCTTCTTACCCTGGCAAAAGATGACGATCGCTGGCACTA  
CTGATACTCCAATGATGTTACACACCATCCAATTCCTTCAGAAGAAGATATCAACTTCATTTTGAATGAAGTGC  
GTAATTACCTGAGTTGTGATGTTGAAGTGAGAAGAGGGGATGTCCTGGCAGCATGGAGTGAATCCGTCCTCTTG  
TTACAGACCCCAATCTGCAGATACTCAGTCTATCTCCCGAAATCATGTTGTTGATATCAGTGAGAGTGGCCTTA  
TTACTATAGCAGGTGGAAAGTGGACAACCTATCGGTCTATGGCAGAAGATACCATAAATGCTGCTGTCAAACTC  
ATAATTTAAAAGCAGGACCAAGTAGAACAGTTGGGCTTTTCTTCAAGGGGTAAAGATTGGAGCCCCACACTCT  
ACATTAGGCTTGTGCAGGATTATGGAAGCGAGGTGGCACAGCATCTTGCCGCCACCTATGGTGATAAGG  
CCTTTGAGGTGGCCAAAATGGCAAGTGTGACTGGCAAAAGGTGGCCTATTGTTGGAGTACGTCTTGTGTGAGAAT  
TTCCATATATTGAAGCAGAGGTGAAATATGGGATTAAGGAGTATGCCTGCACTGCTGTGGATATGATTTACGTC  
GTACTCGCCTGGCCTTTCTAAATGTCCAGGCAGCAGAGGAAGCCCTACCCAGGATTGTTGAAGTATGGGCAGGG  
AACTGAATTGGGATGATTATAAGAAGCAGGAACAACCTTGAAACAGCCAGGAAGTTTCTATATTATGAAATGGGCT  
ATAAATCTCGATCAGAACAGTTAACAGATCGCTCTGAAATTAGCCTACTGCCTTCAGACATTGACAGGTATAAGA  
AGAGATTTCTAAGTTTGATGCAGACCAGAAAGGCTTTATTACCATTGTTGATGTTACGCTGTATTAGAGAGTA  
TCAATGTCCAAATGGATGAAAATACACTCCATGAAATTCTAAATGAAGTTGATTTGAATAAAAATGGACAGGTTG  
AACTCAATGAATTTTTGTCAGCTGATGAGTGCTATTCAAAAAGGAAGGGTATCTGGAAGCCGGCTTGCTATACTAA  
TGAAAATGCAGAAGAGAACCTCGACAGAAGAGTTCCAATTCCAGTGGACCGTAGTTGTGGAGGATTGTGAGTCT  
GGGCAGTAAATCCACAGCCAACAACATAGAAACGACAAATCACCATGTAACAACCAGAGATGACTGAAACCACT  
CTGAAATAATGAATGTGGATAGCTGCCTTTTTTAACACTAGAAAACATTCCAAAACTTTAAAGGTGTTGGTGTATT  
TGCCAGCTTTATTTGCTGTACTTTATTTGTATTTGCCATTGCTCTAGCTTTTAAAGTATATTTTTTCTTTTTCT  
CATTTTCAATGCACATTAGTTTTGTCATCTGTTTTGTGACCTGTTAGATGTGACACATTCTTTTTTGTATTATCC  
CTTATTCTAAATGAGTTCTAAAAACATAATTTTTGGCAAAAATTGAAAAAGCTGGAGACATTTTGTGACATGC  
ATACAGATAGCATGTGTTATTAATAAAGAGTTGCCTATTGAAATGATCGTGTCTTGGAGAAATTAAGCTTATAGA  
CAGCATGTGTTATTAATAAAGAGTTACCTATTGAAATGATAGTGTCTGGAGATTTCTCAGCCCCATCTTCTCC  
AGCTTGCTACCTTCCTCATGCAACAATATTCCACATTTTTATATCTAGAGCATGACTGGCTAACTGGAGAGGG  
AAGGAAAAGTTTAGATCTGGTTACTGGAGCAAGTCTCAAAGAGAACTCTGAAAGCTTCCAGAATCACAGGTATA  
AGATAAGGATAGCATTGACATTTGCTGGGAGTTACAGTGATAGTTTCATCTCAGCAGTTCATTTTTTCTTCAGT  
CACTGCTGGTTTTCTTTGACTATTATAGTTGCCAGGAAGATCCTTGCTCTTCTTACTTTTAAACCAGCATTTAAG  
TGGCAATTTGGATGTAATAGGATGAGACCAAATTTATCTAATTATTACAGTAGTAATACATTTAAGAGTTAAAA  
TGTGTTTTTATATATCCACATATGATAACAAAAGATTCAATTTCCCAAGCCTAAATTTTGAAGCATGTGGTATTGT  
CAATCTAGCTTACCATCTTTTTTGGGGGTACTTGCAACCATAGTAAAGGAAGATGGAATAGACTTTAGTTAACT

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**FIGURE 1272B**

TTAATTATAATTATATGTTAAATAAGGCACATAACCAGTTTCCAAGGTCATCATGGTTGCTTAAAGTCTTTCCCC  
TTCTGTACTCCATGGAAATATTCTCAGTAAACCAAAAACAAAATGGAAAAATAATCACCAACCCCCATCCCGAC  
ACACACACACAGTCCAAAGCAAAAGTCAGTGTGATTGAATTTAACAAGTAATGCAGTTTGGGATGCTTTTGCTA  
CATTTTGGTGGCATTTTAACTAGTTATCTGAATATTTATTAATCGTACTTCCTCTTGTAAGTTAACTACTTACT  
TTTTTGTGTGTGTGTGTGTAAACATCAGGTTCTGTATCTAATAGGAGATGTAACACTTTATTTTCATGGCAGGTTTT  
TATTGCAGAGACTTGAAGTCTTAGTTTTTAACTGGCACATAAAACACTTTTTGCTGTTATTTTTATTTATGTC  
AATACTGCAGAGTATCTTTATGCCTTATTCAAGTGGATTCTGAGCCTGTATGTCACAATGTAAACACTGGAGGTT  
CACTCACCTACGCACTCACCCACCACCTCTGAAAGAAACAGAACTGCAGAGAAAGACAGCATCTTAGCTCATTT  
TGTTTTTAAATGAGGTTTTAGACGCTTGCCACTTCCTAAGGGAAATCCTAAACAGAGCAAGTGATGCTCCCAGG  
TATCACTGTGAACTTTTTTCTTTCAAAGTGTGAATTTTTTACACTGGCTTTTTTCATTTTTTTAAAGTAATTGAAGC  
TTGTGGCTTTACAACCTTAGTGTTTTTGTCTATCCAGATAACAAGTTTCATTGTTTAGAACCCAGTGACACTTAAT  
AGGTAGATAAATTGTCTTTTAAATATCCAGATGATATACACAATATGGTACATTTGTGCTCTCTCTCTCTGTT  
TTTCTCTCTTTCTCTTTCTAGTTAGATCAAGATAACGATGACTTGTACCCTCCCTGATTCTGTTACAGTAGGGCC  
CGGGCAGATCTGTGTTTGTAAACAGGCCTTGTTTTGTGTCATGCTTTGCTATGAATGAAGTTCCTTTAAGGACAAA  
GAAAAGCACACTTTTCTTCTTTTGAGCATATCTGCTTTTACTTTAAATCTGCTAATTTCTAAAATGTAGAGTCTT  
TCACCAATCCCAGAGACTCAATTTGGAAATGAAGTGAATTTCAAGCCGTTACTGTCAATAAAGCACCCCCAGCATTT  
TGTATAAGCTCTTAATTAACCTGTACAGCTTCTTTACCTGATTTAAGAAAGGGAGACAAGCAATAGGGGGGAAT  
AAGCTTCTTCAAAATTCATTCCAAGCACAAAAGAAATTTTTTCCCTTTGCATATAAACTTGACATCAGTTGATTC  
TGTTGGGGTCGGGTGGGTATGCAGGGATTGCCTTTTATTATCAAGTGATTTATTTCAAGAGCCTTTGAGGGGAT  
TCAGGTGAAGGAACCCCCATCTGTGCTGGAGAGTTGGATACTCCTTTAAATAGCCCCCACCACAGTCATAACAAT  
AATGATAATGCTGGATTATTTGTTAAGCCAAGGTTGTCTGCCTCATATCCATCATGCTGTTTGCAATATTCTTGC  
TTTCAATCAATTTATACTGAGTGTAACTTTAGGATTTCTGCTATTAAATGCATGCTCTCTATCCTGCTTCAGTTT  
CTGGCTTTGCTTTGTCTGTTTCAAATATGTAGCTTCCTCTTTTGTACAACAAAAAACTCATTCTCACTTTTACT  
AAATATACTGTAGGAGTCATCATTGATGTTATTTTTCTCTTATGTATCTGTAAAGATTTTTTGGCATATGAATGTA  
ATATTAAAGTCAATGATGCTATAAAGTTCAGTGTGCTAGAGTGGATATACACACCGCATGTTTTCATATGTGGCACT  
CTATGTTTTTAAATAGCAAGTGTAAAGCTCAGTGTGCTAGAGTGGATATACACACCGCATGTTTTCATATGTGGCACT  
TTTATGTATCATGTTGGGTTATTGTTCTAGACTGGACTGTTAAATACTATGTTTGAGGCTGGGTTGTCAATTTTTA  
TAACTGTCTTGGTGTTTTATGGCCATTATTTATTACTTTTGATACACAGAATGAGCTGCATGCATTTATAGAGCA  
ATAAGAGGATGTATTTAATGTGCCTTGTTTTTAACTGAATAAGAACTGGAAGCATGAATCAATAAACTGATTAA  
AATGGTCTATTTGCTAGCATTTTGATGTTACTTGCAGTCAGATAACTTTGATTACTGTTGAAGTTTAAAAAAGT  
TTGAAAATATTTTACAACTGTGTTTTTGTATGACACAAAAGTGAATATCTACAGAGATAGATGTAATTTTATA  
AGACTGCCAGAATTATTTGTATTAATTTGTTGCTGTAGCCTTTAGGGCATGACTTCTGTATTTGTGCAATCCTAT  
TCTACAATTACATTCATCCTATTACAACCTCAAAGAAAAACAAAAGTCGACGCGG

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**FIGURE 1273**

MAFQKAVKGTILVGGGALATVLGLSQFAHYRRKQMNLAYVKAADCISEPVNREPPSREAQLLTLQNTSEFDILVI  
GGGATGSGCALDAVTRGLKTALVERDDFSSGTSSRSTKLIHGGVRYLQKAIMKLDIEQYRMVKEALHERANLLEI  
APHL SAPLPIMLPVYKWWQLPYYWVGIKLYDLVAGSNCLKSSYVLSKSRALHFPMQLQDKLVGAIVYYDQGHND  
ARMNLAIALTAARYGAATANYMEVVSLLKKTDPQTGKVHVSGARCKDVL TGQEFDVRAKCVINATGPFTDSVRKM  
DDKDAAAICQPSAGVHIVMPGYYSPEMGLLDPATSDGRVIFFLPWQKMTIAGTTDPTDVTTHPIPSEEDINFI  
LNEVRNYLSCDVEVRRGDVLAWSGIRPLVTDPKSADTQSI SRNHVVDISESGLITIAGGKWTTYRSM AEDTINA  
AVKTHNLKAGPSRTVGLFLQGGKDWSP TLYIRLVQDYGLESEVAQH LAATYGDKA FEVAKMASVTGKRWP IVGVR  
LVSEFPYIEAEVKYGIKEYACTAVDMISRRLAFLNVQAAEEALPRIVELMGRELNWDDYKKQE QLETARKFLY  
YEMGYKSRSEQLTDRSEISLLPSDIDRYKKRFHKFDADQKGFITIVDVQRVLESINVQMDENTLHEILNEVDLNK  
NGQVELNEFLQLMSAIQKGRVSGSRLAILMKTA EENLDRRVP IPVDRSCGGL



TTTTTTTTATCATTGACAATGTTTATTATCAAGAACTTTAGGTTTTTTTAAAGAATGCTCGTTTTAGAATACAC  
CAAGAGGACACTCTGTGACAGGACATATACAAACAAGGATAATTAAAAATATTAAATACTATCTAAATTAAAAGAC  
CATAATTCAAATTGCTAATTATAATATTTGTGTCGGTAGAAATAACTATAGTTCCCCTTCATGAAATTCACCCC  
ACGTTCTCATGAAGACTATGACGTCACCACAATTCAGTTATTTAATTTACAATAATCAATGCTGAGTTTTCT  
GTGCTGAAGCATGCAC TGTTACAGAAAGCACAAAATCCTATTTACAGGGATTTTTAGTTTTCTTTAAAATGTATC  
TCAAGCATCTTTTAAAGTGCGAGCTACAAATAGGTTGTATCCTTAATGAAAAAGGCTTCTTTCTAAAAGAAGTAT  
GAGATAGCTATCCAATACTGCAGGAACAGTTATATAACTAACCGAAGGAACCAGCAGCACTCTGCTAACTCTGTT  
TTAGTGTAGCAACCTCCTTCTTGGTGTTCTACTACCAGCCAXACATGTACTCCATTGCTTTGGATACCAGACTTT  
CATCTTTTTTTGGCGTTTGTCTGTCAGAAATACCCTGATAATCACTAGTAGAGGC



**FIGURE 1275B**

CACATATAAGCCATAGTTACAGTACAGGTGGCAGTATTTAGAGCACTCAGATTTTCAGTTCTGTTAAATGTGAAAG  
AGGGATCGACTGACGTTTCATTGCTGTTCCATAACTAGTGTAATAATATGTATATGTTTATCTTTATTTTATAATA  
TGCAAATACATTTAAATTTATACAGTTTGAAGCTTCTAGCGTTAGTTCACACTGGGTGCAATATTCTGCATGAGA  
ACTGTGCCAAGATGGGGCTGATTTCTTATTTTAGTATAAGACTTTTTTGTCTTTTCTTTATTTCTTTAATCCTCTT  
CACATTAATAAAAAAAAAATCTCTCTGTTAGCCCATGGATTAAGTGTTGGTTCATAGAGATTGCCAATAATCAGAA  
AGAACCTTAAATGTGCATTTAAGACAGTGTCCCTTCCCTTCTTTTCAATGAAGGTCCCTGCCTATATAAATCATC  
TGGCACGCTGGTGGGAAATCCTTTGCTCTTCCAACGTGTTATTAGTGCTGGGCAGAGATGGGGCACACTCAGGGG  
CCAAAGAGGACAAAAAGTCCATGCAAACTTGAGTCTTTTAAATGGCTTAAGATAATCAGGAGTCAGTTCTGAATC  
TTACAAAGTGCTCTGCTTAATAAGTACCTTACTTAGCAGAGCACTTTGCAAACATATTACTTATTAGCAGAGCTC  
TTTGTAGACCTTCCACATCTGGCTGTCAGATCTTAAGGTTGTGAATTTAGGCTCCAGTTACATTTCACTGGAGAGC  
ATAATCCCAACACGGGTTATTTATAAATACAGAGCCTCTGATTGGACGGTCTCCTGCCAAGAACTAGTAATACCTT  
TGTTTTTAAATCTTCACAAGGTAAACTTTAAAAAGCCAAACAAATGCTCTCCATTCTACTTTTAAATTGGG  
CCAAACAGCATATGCTACAGTAGTAACATGTTTTTCGGAGAGTGTAATAAACTCTGTTTACATTTGCCTCCTCCG  
TGGGTTGATCGAAAATGTATAAACTGACTGCTTCTCGCCAGCCTCAGACAAGAAGAGTGAGTTGCTGGTACTCG  
CTACTCTTTTACTTCTTTTGTAAAGTATTGACTCTTGGAAGGCTACAGTATACAAAGTCTCAACATGTTTTTTAA  
AAGAAATAAGGAGCAAGCGACTGCCCTGCTAGAAATCACAAACCGATTTTTGTAGAATATTTTGTGCCCCAGGCA  
TTAATTTCACTGACTCCAGAACCTGCAGTTCAGAGAATGATTTCTTATGATGATAAAAATCGAATGGGATCAGAC  
GATGTTTGCATTTTTTTAATACTTGAATAGGACACCTCAAGTTTGAGATTTTCATTTTCTTTTAGAACACAGTCAC  
AAGATTAATCTGGTGAATCCTTTTGTACAGTTCCTGCTGTGTGTGTGCGCGTCTCCNNNNNNNNNNNNNNNNNN  
NNNNNAAACTGAATGGTCACATTTAATTGCTTTTTGGACCATTGAATAGTTGGGAAGTAAGAATTTTTTAATTG  
GCATGAGACGGTTCCTCAACTGTAAATTAACCAACTTTGACCTGTCTTTAGAAAAAGGCTTATTTGTATGATTT  
TGGGCTAACTCCCCGGGGACCATATTAAATGACAAAAATGCTCCTTTGGGTGACACACCCTACAAAGTATTTGCT  
GTTACGAACATAAACGCCACATTCTTAATATCTAATATTTTTTGACCAGTGATGTTTTATGCTGTCTATCTGAACC  
CTAGAGAAGCAGTGTGAGAGGAAACCTTGGTGTACATGTGTCTTAGCAAAAGGGTTACCATGATCGAGGGTCAT  
GTGACCAAAAAGATGCTCCAGAGAAGCTTGAGAATTTGTTTCAAGTTGGGAGGAGGGTTGGAGATACAAAAATCAC  
TCTGCTCTACAGGACTCTTCAGCTGTCTATGCAAGAAATTCGTTTTCTCTTTTACGACCTGGAAAGACACAGCA  
GCCCCAGGAGGCGATAGGTGATTCATAAGCACAAAGAGGAATGTTTTCTAAGCAAGGCGTCCCTTGCTCTCAAA  
CAAATGCCCTCCAAGTTTGTAGGGTTTCTATTCTGCAACTTGTAGTATCAAACCCTTCTGGAATTGTCAA  
AGCACTGCCAAAATAAATGTTTTTCCCCCTTCTAAGAAAAAATAATGACAGTGCTCATATTTGACACTTGTGTA  
TTGGACTCTCTTTGAATGAATAAAAAGGAAAAGGGGTTTGGTGTAAATTCCTGATGGGGTGCGTGTGTTTTCA  
TGCCATGGTTTGTGAATTTTAATTGTGGTTTCCCATTTTCGTTGTTGTAAGTGGGCAGAAATTAATAAAGAAAAAT  
CAATAAAAAATACAAAGAAATGGTTAAAAA

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**FIGURE 1276**

AAGRRAREGRQGQEPEGPGRGAACSCGLPRRVRLSARGPAMAGMDSGNLKTARLWRDAALRARKLRSNLRQLTLT  
AAGACPGAGADALESPASPQLVLPANLGDIEALNLGNNGLEEVPEGLGSALGSLRVLVLRNRNFARLPPAVAEIG  
HHLTELDVSHNRLTALGAEVVSALRELRLNLNLSHNQLPALPAQLGALAHLEELDVSFNRLAHLPLDSLCLSLRLT  
LDVDHNQLTAFPRQLQLVALEELDVSNNRLRGLPEDI SALRALKILWLSGAELGTLPAAGFCELASLESMLDNN  
GLQALPAQFSCQLRLKMLNLSSNLFEEFPAALLPLAGLEELYLSSQPAHLGAIRLSRAWAGFLTTLWLDNNRIRYL  
PDSIVELTGLEELVLQGNQIAVLDPDHFGQLSRVGLWKIKDNPLIQPPYEVCMMKGIPYIAAYQKELAHSQPAVQPR  
LKLLLMGHKAAGKTLLRHCLTEERVEGCPGGGDKEKCYPPSPPPVSKGIEVTSWTADASRGLRFIVYDLAGDESY  
EVIQPFFLSPGALYVLVNLATYEPRHFPTTVGSFLHRVGARVPHAVVCIVGTHADLCGERELEEKCLDIHRQIA  
LQEKHDAEGLSRLAKVVDEALARDFELRSASPHAAYYGVSDKNLRRRKAHFQYLLNHLRLQILSPVLPVSCRDPRH  
LRRRLDKLLSVAEHREIFPNLHRVLPERSWQVLEELHFQPPQAQRLWLSWWD SARLGLQAGLTEDRLQSALSYLHE  
SGKLLYFEDSPALKEHVFNHLTRLIDILNVFFQRDPSLLLHKLLLGTS GEGKAEGESSPPMARSTPSQELLRATQ  
LHQYVEGFLLHGLLPAHVIRLLLKPHVQAQODLQLLLELLEKMGLCYCLNKP KGKPLNGSTAWYKFPCYVQNEVP  
HAEAWINGTNLAGQSFVAEQLQIEYSFPFTFPPLGFARYSVQINSHVVHRSDGKFQIFAYRGKVPVVVSYPARG  
VLQPDTLISIASHASLPNIWTAWQAITPLVEELNVLLQEWPLHYTVHILCSKCLKRGSPPNPHAFPGELLSQPRPE  
GVAEIIICPKNGSERVNVALVYPPTPTVISPCSKKNVGEKHRNQ

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**FIGURE 1277**

GCAGCCCCGGCGGCCGAACGCCCGCGGGCGGGACTCCATCGTCAGAGAAGTCATTTCAGAATTCAAAAGAAGTTC  
TAAGTTTATTGCAAGAAAAAACCTGCCTTCAAGCCGTTCTTGCAATTATCCAGGCAGGTGACGACAACTTGA  
TGCAGGAAATCAACCAGAATTTGGCTGAGGAGGCTGGTCTGAACATCACTCACATTTGCCTCCCTCCAGATAGCA  
GTGAAGCCGAGATTATAGATGAAATCTTAAAGATCAATGAAGATACCAGAGTACATGGCCTTGCCCTTCAGATCT  
CTGAGAACTTGTTTAGCAACAAAGTCCTCAATGCCTTGAAACCAGAAAAAGATGTGGATGGAGTAACAGACATAA  
ACCTGGGGAAGCTGGTGCAGGGGATGCCCATGAATGTTTTGTTTACCTGTTGCCAAAGCTGTAATTGAACTTC  
TTGAAAAATCAGGTGTCAACCTAGATGGAAAGAAGATTTTGGTAGTGGGGGCCATGGGTCTTTGGAAGCTGCTC  
TACAATGCCTGTTCCAGAGAAAAGGGTCCATGACAATGAGCATCCAGTGGAAAACACGCCAGCTTCAAAGCAAGC  
TTCACGAGGCTGACATTGTGGTCCTAGGCTCACCTAAGCCAGAAGAGATTCCCCTTACTTGGATACAACCAGGAA  
CTACTGTTCTCAACTGCTCCCATGACTTCTGTGTCAGGGAAGGTTGGGTGTGGCTCTCCAAGAATACATTTTGGTG  
GACTCATTGAGGAAGATGATGTGATTCTCCTTGCTGCAGCTCTGCGAATTTCAGAACATGGTCAGTAGTGGAAGGA  
GATGGCTTCGTGAACAGCAGCACAGGCGGTGGAGACTTCACTGCTTGAAACTTCAGCCTCTCTCCCCTGTGCCAA  
GTGACATTGAGATTTCAAGAGGACAAACTCCAAAAGCTGTGGATGTCCTTGCCAAGGAGATTGGATTGCTTGCA  
ATGAAATTGAAATCTATGGCAAAGCAAAGCCAAAAGTACGTTTGTCCGTGCTAGAAAAGGTTAAAGGATCAAGCAG  
ATGGAAAATACGTCTTAGTTGCTGGGATCACACCCACCCCTCTTGGAGAAGGGAAGAGCACAGTCAACATCGGGC  
TTGTGCAGGCTCTGACCGCACACCTGAATGTCAACTCCTTTGCCTGCTTGAGGCAGCCTTCCCAAGGACCGACGT  
TTGGAGTGAAAGGAGGAGCCGCGGGTGGTGGATATGCCCAGGTCATCCCATGGAGGAGTTCAACCTTCACTTGA  
CTGGAGACATCCACGCCATCACCGCTGCCAATAACTTGCTGGCTGCCGCCATCGACACGAGGATTCTTCATGAAA  
ACACGCAAACAGATAAGGCTCTGTATAATCGGCTGGTTCCTTTAGTGAATGGTGTGAGAGAATTTTCAGAAATTC  
AGCTTGCTCGGCTAAAAAACTGGGAATAAATAAGACTGATCCGAGCACACTGACAGAAGAGGAAGTGAGTAAAT  
TTGCCCCGTCTCGACATCGACCCATCTACCATCACGTGGCAGAGAGTATTGGATACAAATGACCGATTCTACGAA  
AAATAACCATCGGGCAGGGAACACAGAGAAGGGCCATTACCGGCAGGCGCAGTTTGACATCGCAGTGGCCAGCG  
AGATCATGGCGGTGCTGGCCCTGACGGACAGCCTCGCAGACATGAAGGCACGGCTGGGAAGGATGGTGGTGGCCA  
GTGACAAAAGCGGGCAGCCTGTGACAGCAGATGATTTGGGGGTGACAGGTGCTTTGACAGTTTGTATGAAAGATG  
CAATAAAACCAAACCTGATGCAGACCCTGGAAGGGACACCTGTGTTCTGTCATGCGGGCCCTTTTGCTAACATTG  
CTCACGGCAACTCTTCAGTGTTGGCTGATAAAATTGCCCTGAAACTGGTTGGTGAAGAAGGATTTGTAGTGACCG  
AAGCTGGCTTTGGTGCTGACATCGGAATGGAGAAAATCTTCAACATCAAGTGCCGAGCTTCCGGCTTGGTGCCCA  
ACGTGGTTGTGTTAGTGGAACGGTGCGAGCTCTGAAGATGCATGGAGGCGGGCCAAGTGTAACGGCTGGTGTTT  
CTCTTAAGAAAGAATATACAGAGGAGAACATCCAGCTGGTGGCAGACGGCTGCTGTAACCTCCAGAAGCAAATTC  
AGATCACTCAGCTCTTTGGGGTTCCCGTTGTGGTGGCTCTGAATGTCTTCAAGACCGACACCCGCGCTGAGATTG  
ACTTGGTGTGTGAGCTTGCAAAGCGGGCTGGTGCCCTTGATGCAGTCCCCTGCTATCACTGGTCCGTTGGTGGAA  
AAGGATCGGTGGACTTGGCTCGGGCTGTGAGAGAGGCTGCGAGTAAAAGAAGCCGATTCCAGTTCCTGTATGATG  
TTCAGGTCCAATTGTGGACAAGATAAGGACCATTGCTCAGGCTGTCTATGGAGCCAAAGATATTGAACTCTCTC  
CTGAGGCACAAGCCAAAATAGATCGTTACACTCAACAGGGTTTTGGAAATTTGCCCATCTGCATGGCAAAGACCC  
ACCTTTCTCTATCTCACCAACCTGACAAAAAAGGTGTGCCAAGGGACTTCATCTTACCTATCAGTGACGTCCGGG  
CCAGCATAGGCGCTGGGTTCAATTTACCTTTGGTCGGAACGATGAGCACCATGCCAGGACTGCCACCCGCCCCCT  
GCTTTTATGACATAGATCTTGATACCGAAACAGAACAAAGTTAAAGGCTTGTCTAAGTGGACAAGGCTCTCACAG  
GACCCGATGCAGACTCCTGAAACAGACTACTCTTTGCCTTTTTGCTGCAGTTGGAGAAGAACTGAATTTGAAAA  
ATGTCTGTTATGCAATGCTGGAGACGTGGTGAAATAGGCCAAAGATTTCTTCTCGTTCAAGATGAATCTGTTC  
ACAGTGGAGTATGGTGTTCGGCAAAGGACCTCCACCAAGACTGAAAGAACTAATTTATTTCTGTTTCTGTGGA  
GTTTCCATTATTTCTACTGCTTACACTTTAGAATGTTTATTTTATGGGGACTAAGGGATTAGGAGTGTGAACTAA  
AAGGTAACATTTTCCACTCTCAAGTTTTCTACTTTGTCTTTGAACTGAAAATAAACATGGATCTAGAAAACCAA  
AAAAAAAAAAAAAA

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**FIGURE 1278A**

CGGGGCCGCTGAATGAGATCCTCATCTGCGGGAAGTGTGGCCTGGGTTACCACCAGCAGTGCCACATCCCCATAG  
CGGGCAGTGCTGACCAGCCCCTGCTCACACCTTGTTCTGCCGACGCTGCATCTTCGCACTGGCTGTGCGGAAAG  
GCGGCGCGCTGAAGAAGGGCGCCATCGCCAGGACGCTGCAGGCCGTGAAGATGGTGCTGTCTACCAGCCCGAGG  
AGCTCGAGTGGGACTCGCCCCATCGCACCAACCAGCAGCAATGCTACTGCTACTGCGGCGGGCCCGGAGAATGGT  
ACCTGCGGATGCTGCAATGTTACCGGTGCAGGCAGTGGTTCCACGAGGCCTGCACCCAGTGCCTCAATGAGCCCA  
TGATGTTTGGAGACCGGTTTTACCTGTTCTTCTGCTCCGTGTGTAACCAGGGCCAGAGTACATCGAGAGGCTGC  
CCCTGCGATGGGTGGATGTGGTTCACCTGGCCCTCTATAATCTGGGGGTACAGAGCAAGAAGAAGTACTTTGACT  
TTGAGGAGATTCTGGCCTTTGTCAACCACCACTGGGAGCTCCTGCAGCTTGGCAAGCTCACCAGCACCCCACTGA  
CAGATCGAGGACCACATCTCCTCAACGCTCTGAACAGTTATAAAAAGCCGGTTCCTCTGCGGCAAGGAGATCAAGA  
AGAAGAAGTGCACTTTCGCGCTGCGCATCCGCGTCCCACCCAAACCGCCAGGGAAGCTGCTGCCTGACAAAGGAC  
TGCTGCCAAATGAGAACAGCGCCTCCTCTGAGCTGCGTAAGAGAGGAAAGAGCAAGCCTGGTTTTGTTGCCCTCACG  
AATTCCAGCAGCAGAAAAGGCGAGTTTTATAGAAGAAAAAGATCAAAGTTTTTGCTGGAAGATGCTATTCCAGTA  
GTGACTTCACCTCAGCCTGGAGCACCAACCACCACTGGCTAGCATATTTGACTTCACGCTGGATGAAATTCAAA  
GTTTAAAAAGTGCCAGCTCAGGCCAGACCTTCTTCTCAGATGTCGACTCCACCGACGCTGCCAGCACCTCTGGCT  
CTGCCTCCACCAGCCTCTCCTATGACTCCAGATGGACAGTGGGCAGCCGAAAGAGGAAGCTGGCAGCCAAGGCAT  
ACATGCCCCCTGCGGGCAAAGCGGTGGGCAGCTGAGCTGGATGGACGCTGCCCCCTCGGACAGCAGTGCAGAGGGGG  
CTTCAGTCCCCGAGCGGCCAGACGAAGGCATTGACAGCCACACATTTGAGAGCATCAGTGAAGATGACTCATCCC  
TGTCCACCTCAAGTCATCTATACCAACTACTTTGGTGCAGCTGGGCGGTTGGCCTGTGGGGAGAAGTACCAGG  
TGTTGGCTCGGAGGGTCACACCTGAGGGCAAGGTTCAGTACCTGGTGGAGTGGGAAGGGACCACCCCTTACTGAC  
TAGCCCCCGGGGTGCCAGGGTCTGAAAACCAAAGGAGGAGCAGCAGAAGCCATAGGCTCCCCAGCTTTCTCC  
AGGCTGGGGTGGGAGAAGGAAGCAGGACAGAGCTGCAAGTGCTGGCAGAATGCCCTGCCTGCCTGCCTGCCTGC  
CAGGCCAAGGCCCTGCGTCTCTCTGCTGTACCAGCTCTGTTCCAGGGCCTCCTCAGGCTCGTTACCCCTGTGCCTG  
TGTCTCTACACACTCCACACCCCCCTCAAACCTCTGTTTATCTGTTCTCTGACCTTGTGTCCCTGCGCTGGGACCC  
TTCTCCTGAGGCCCAGGTCTTTGTCCCCAGTTGTGTGCCTTGACCTCTCTCGCCCCCTTTCTGGGTGTGTTTCGA  
CATCCTGTGTGTGCACAGCTGTCCCTCCACTGGATCCCCCTTACACGCTGACCCGTGGGGCAGCCAGTCCCTCCAG  
GGACTACATAACAGGCACCTTTGAGAGAGCATGGGAGAAGGTGGATAAGAGGATGCTGCTCAGTGCTTTTTCTCTT  
CCACTTTCCTGCCACTCCCCACTACCTCGGAGAGAGGTGGTGGGATGGGAGAGAGCCCTGTGAAAGCCTGTGA  
GGATCTGAAGAGTAAAGGGCTGGGTCTGCCTCAGAAGGCACCAGCACCAGGGCCAGGTATTAAGGCTGAGAGTG  
AAGGCTGCCAATGTGAGCTTTGGAGGTCCCAGAAGTCTTCTGTTCTCTGGCCTCACCCCTCAGTCGCCATAGAG  
CTGGGCCTGGCCTTGCTGGAATGGAGGCATCCTTCCAAACCTGGGGGACGGGGGTGGGGGGTGGTAGTGGTGGGA  
GGGAAACCATGTCTTGCTAAACCTGTTTCTGGTGCCTCCCATCCCCAGACCCACCAGACACCACACAGCAGACAA  
TACACACCACTCGCACAAAGCTTCCATCCACATGTGTTGTACTTTACGCTCTAGGCATGCAGACAACCCCAACAG  
GCCACACCACCATGCCCCAAGTGTAACACACAGAGCCACACCGTCCCTCTGGGCCTGCTGGCTCCTCCCTTGG  
CTTTCCCTTGGCCCACTTCCAGGGCCCAGGTGCTGCAACTAAATGTGAAAGCTCAGTGGCCGCTCCTTCTTTCA  
CCCATCAACCAGCATTGGTCCCATAGGGAAGCACAGGGGACTCACCTCTTTCATATCCCTTGCCCTGCCCTGAA  
ATGGACAATCACTTTTTTGGGATAGGTTGAAATTTTTTAAAGAGCCTGCATCATTGCGTTCCCTCAAAGGGAAGCCC  
TTGCTAGTGGGGGTTTGAAGAGAATTTTTTGAACCAACATTCAAATTTCTGCCTCATCTGGAGGGAAACCAAAAT  
TGGGAGGGGGAAGAGGACCCCTGATGTTTTGCTGCTTCCAGAGATATTAGAACTGACTCACTTGATTGGAAAAT  
GGACAAAAGTGCCCTTGACGTGGAGGGTGGGCACCAGATGGGGACCAGCCTTGCCAAGTGTGCTGTGGCCTCCAG  
CTTGGCTGGTTTTTGACAGGCCGCCAGCAGGAAGGCGAAGGTGGTAGTACAGCAAGAGGCACTGGCGGGGCAGCAGG  
CCTGCAGGAGCTGTTTTTCCATTGCTAGGCCTGACCCCTCTCTACCTGTGAGCGTTTCAGGGGGTCCCTGAGATAG  
TTTAGATGCCCCCCCCATCTTAGACCTCAGCTCCCACAGTGCCTTTTTAAAGGGGACCTCACCTCCTGTGCACAGC  
CCACCCACTTTCCTCTGCTTCCCTGGCACAGCCAGGCATAGACGAGCTGGCGTTGGACCCAGTTCTTCCCCCTT  
TTCAGCCCCACAGCTGCTGCCACAGGGGCCAACTAGGGCCAGGTGGAAGGGGAGCTGAGAAGCCAACCCCTAGCC  
CAGGGGTGCTGTGGGAACTGGGATCCAATTTGTAGCTTCCCGCCTGGCTTCAGAGAGCCCAGCAACCTTCTAGGC  
CTGCTTTCAGACTTCTGAGATAGCCTGGGATGAGCAATCCTGTTACAGTACATCTGGACCTTCCCTACCTGGGC  
TCTGGGGAGGCTGTGGGCCTGGAGAGGGAAAAGGAGGGAGGGGGTGTCTGCACCACCTGGGAAGATAGCACAAGG  
CCTAATGAGGTCACCCCTGACTCCCCACCCAGCATTTCAATTCATACCAGATAATAGCTGCATTACTGCCAACTGA

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**FIGURE 1278B**

CCTTATAACCCCTCTGCACCTTCAAAAAGATTCATGGTTTTTAATTGCTGCTTTTAATAACATTTGTAAAGTTAAA  
AAAAAAA

PCT/US03/35263

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**FIGURE 1279**

GPLNEILICGKCGLYHQCHPIAGSADQPLLTPWFCRRCIFALAVRKGGALKKGAIARTLQAVKMLSYQPEE  
LEWDSPHRTNQCCYCYCGGPGEWYLRMLQCYRCRQWFHEACTQCLNEPMMFGDRFYLFCSVCNQGPYIERLP  
LRWVDVVHLALYNLGVQSKKKYFDFEILAFVNHHWELLQLGKLTSTPVTDRGPHLLNALNSYKSRFLCGKEIKK  
KKCIFRLRIRVPPNPPGKLLPDKLLPNENSASSELRKRGKSKPGLLPHEFQQQKRRVYRRKRSKFLEDAIPSS  
DFTSAWSTNHHLASIFDFTLDEIQSLKSASSGQTFFSDVDSTDAASTSGSASTLSYDSRWTVGSRKRKLAAKAY  
MPLRAKRWAAELDGRCPSDSSAEGASVPERPDEGIDSHTFESISDSSLSHLKSSITNYFGAAGRLACGEKYQV  
LARRVTPEGKVQYLVWEWEGTTPY



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**FIGURE 1280**

CTGTTTATAGATAATGTCTGCAGTTTCTGTTTGAGAGAGATAATTATGACACTTAGCATTGGAAAATAAGAAGA  
ACGTAAGCAGGTCAGCTATCAGAAGTCTTCAGACTGGAGAGATTCTTGAGGGGGAGTGGCCCTTTAATCCATCA  
GCTGAAGCCATCTGGTAGGACGCTCGTTGCAGAAATGGTTAGTTCTGAAATGTTGTAGCTCAGCAACATCACTGA  
ATGTCACAGAATTGACAGGCACGGAGCTAAAAGGGCCTCTAGCCACCCCACAACCTCCGCTCTACCTCTGTCTCC  
CTAACACATGACTTGGAAACAAATACACTCTAGGTACAAAGATGGCTACCTGAAGTTTATGATCCCTACTCATGGA  
GCTGCTTGAGGACTTCACATTTTTTAAAAAGCTGCTTTGGGCACCCCATTCCTGAGGAGTTTTGTAGCTTGGTT  
TCTCTTTGCCACATTACGTTTGTAAAGCTAACATTTTATAACCATAAGCAGTTAGGCCTTTTTATTTTGAGAAAT  
TTATCTGTAGCTTCCTTTTTATTTTACACTTGGGGACTATTTTAAAGTAACCGATTGAAATATTTTTGTTTCTCCAT  
TGCAAGTGAAATCCTTGTTGCTAATCTTTTGCCACATGTAAATTTGTTCACTTGTTATCAAGCAGGTAGTTCAAT  
ATCTGTAATTCTTGAGTTCTTTTCAACTAGCATGATGCTAGGTGTCACTCACTGTTTTTTAATTGTGGGAGATTG  
ATGCGTCAGTGCATGAAGTGGGGGGTGGTCAACCAGCATCTAACTCAAAGTGTGATTATAGCTATCTTACCACATT  
TTTTTTTTCTTTCTCACTCTGTCAACCAGGCTGGAGTGCAGTGGTGTAACTCTCAGCTCACTGCAGCCTCGACCTC  
CTGGGCTCAAGCGATCCTCCTACCTCAGCCTCCCAAATAGCTGGGACCACAGGCGCATGCCACCCCACTAAGCTA  
ATTTTTCTATTTTTTGCAGAGACAGGGTTTTGCCGTGTTGCCTAGGTTGTTCTCAAACCTCCTGAGCTCAAGCCTG  
CCTCAGCCTCCCAAAGTGCTGGGATTACATGTGTGAGCCACCATGCCTGGCCGTCACCTAATCTTCAAGGTTAATA  
TTTGGAGGACCCATCCAGAGTCCAAAGGTGGTCTTCGAGGGATAGCACGAGGTGGTCTGACAGGACTAACACTTA  
CCAGCCTCTATGCACTATATAATAACTGGGAGCACATGAAAGGCTCCTTGCTCCAACAGTCACTCTGAAGATTTT  
GCCAACTCATGAATGGAGGACACTTCAGTAGTCATCTAGATCCTTTTATAAGACAGTTTGGAGTTATTCTCTCTC  
TTCTACCTACAATTAGTTTGAAAAATTGGAGATTTTGATTTGCTGTGATGAAAATCCTGGATGGCTGACCAAGAC  
TGGCACTTGTTCCAGCCATTAGTGAGTTGAAGCCAAAGCCCTTTGGTGACTCACTGAGTACCATGGTTCTGTTCT  
CCTCTGGAGATCTTGACGTATCTGTTTTCTCCCCCATGAACTAGAAAACCACTTACTCCCAGAAATTCAGGTCTG  
TGCTTGTTAGTACTATATACCAAGTCCATTCAATTAATGATCCAAACTGTAATGTTGCACTGTATTCCAAATA  
AAGGGTAAAAACAGAACCAAGGTATAACTCCAAAAAAAAAAAAAAAAA

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**FIGURE 1281**

GTCCTCTCTGCTCTCGCGGCCGACTCGCAAGATGGCGCCGCAGAAAGACAGGAAGCCCAAGAGGTCAACCTGGAG  
GTTTAATTTGGACCTTACTCATCCAGTAGAAGATGGAATTTTGGATTCTGGAAATTTTGAGCAATTTCTACGGGA  
GAAGGTTAAAGTCAATGGCAAACTGGAAATCTCGGGAATGTTGTTTACATTGAACGCTTCAAGAATAAAATCAC  
AGTTGTTTCTGAGAAACAGTTCTCTAAAAGGTATTTGAAATACCTTACCAAGAAATACCTTAAGAAGAACAATCT  
TCGTGATTGGCTTCGAGTGGTTGCATCTGACAAGGAGACCTACGAACCTCGTTACTTCCAGATTAGTCAAGATGA  
AGATGAATCAGAGTCGGAGGACTAGGCAAAGGCTCCCCTTACAGGGCTTTGCTTATTAATAAAATAAATGAAGTA  
TACATGAGAAATACCAAGAAATTGGCTTTTAGTTTATCAGTGAATAAAAAATATTATACTCTTG

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**FIGURE 1282**

SSLLSRPTRKMAPQKDRKPKRSTWRFNLDLTHPVEDGIFDSGNFEQFLREKVKVNGKTGNLGNVVHIERFKNKIT  
VVSEKQFSKRYLKYLTKKYLKKNLRLDWLRVVASDKETYELRYFQISQDEDESESED

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**FIGURE 1283**

CTAACTTTGAGTCAACGCTGACTACAGCACCAGGACTGCTCACTTCCAGCTTCTGCTGACACCTGCCCTCGTTTA  
GTCTTTCTTGGTGGCTGCAGGTTCACTAGAACTCTATGCCAGGCTTTGTCTCCGGGACATAGGAGAGTGCTGGT  
GCTCAGTCATGTTTGTGAATGAGTAATAAATGGTAAAGTTGTTGCTGCCCGAGACGCTTCAAGAGGAAGCAG  
CCCCCTAACCCAGCTGGGAGGAGGAGGAAGAATCCTGGGCTGGTCACTTGGGGAAGGAGCTGAGCAGGCCGGGC  
CACCTGGGCTGACACAGCACGAGCACCACGTGGATGGGATGCCTGCAGTCAGCTGCAGGAGGGCCTCGTCGGGAG  
GCCACAGGGCCCCCTCTTTGTCTTGAATGGAGACCTCCAAGGCTCCAGGACATAAAGGGCCTTGGCCAAGCTGTT  
CCTGGCCACCTGGCCACATCTCCAGCTGCACCACTTCTCACCTCCATTCCCCACGGCCCCAGCTGTGAGGTTTAA  
GGGTGGCAGAGAGCTCCATGCACCCCTGGCCTTGGCCTCTTCTGGGGCTTAGAGCTCCAGGACTTTTGGGCCTG  
TGCACCCCTCAGCGTCCCCCTTTACGACTCCGGCGAGGACGGCCAGGTGCCTGGTGGACTCTTGCACGTGCTCAGC  
CACGAGACCTCATGTGCGCTGTCTGAGCCCACCTGTGTCTCAGATGTTCCAGGTCATCCAGCCAGAGCGTGCG  
CTGTACATCCAGGCCAACAACTGCGTGGAGGCCAAGGACTGGATCGACATTCTCACCAAAGTGAGCCAGTGCAAC  
CAGAAGCGCCTCACCGTCTACCACCCGTCCGCCTACCTGAGCGGCCACTGGCTGTGCTGTAGGGCGCCATCCGAC  
TCGGCTCCGGGCTGCTCGCCCTGCACTGGCGGCCTCCAGCCAACATCCAGCTGGACATTGATGGGGACCGTGAG  
ACGGAGCGTATCTACTCCCTCTTCAACTTGTACATGAGCAAGCTGGAGAAGATGCAGGAGGCCTGTGGGAGCAAA  
TCTGTGTATGACGGCCCGGAGCAGGAGGAGTATTGACGTTTCGTCATTGACGACCCCCAGGAGACCTACAAGACG  
CTAAAGCAAGTCATCGCTGGGGTTGGGGCTTTGGAGCAGGAGCACGCCCAGTATAAGAGGGACAAGTTCAAGAAG  
ACGAAATATGGAAGCCAGGAGCACCCCATCGGAGACAAGAGCTTCCAGAACTACATCCGGCAGCAGTCCGAGACC  
TCCACTCATTCCATTAAAGTCTGCGGGACGCGCCAGTGGCGCCAGCAAGCTGCCCATGCAAAGCCGCAGCCTT  
TGGGAGGGAGAAGAGAAGGAAGAGCGCAGAGCCGGCAAAGTGAGATGCACGCCGTCCCGGGCCATAGACAAGTGG  
CGCTGGGGTTTCCCTCTCCAGAACCGCTGCCACCACCGCCACGCCCTCCGAGAAAGCCACCTGGCCCTGTGG  
AACGTGTGCTCATTGATTCTGTGCTTTTTGCTCCTTGTGTTGTGGGGATCTGGGGATCAGCTGAAGGATCAGGAA  
GTGTGGGCTGTGCCCTAGCCACACCACAGCCAGCCTCAGGGAGCCACGGCCCGTCTAGTCGACTGTGACATGCAC  
CTCCGGCCGTGTGTGCGTCAGTCTCGTGCACGTCTGTCTTGCCTTGCACGGTGCCTGTGACGCTGGGCTCTGTGG  
CTCTGTGCCCCGGGAGGCCCTGTGGCCCCGCTCGGCTTTCGGCTTCATCACATTGGGAGGTTTCAGAGCATTACTC  
TCCCACTGTGCTGCCATCCAGGCAGCCATGGGAGGCGGCCTCCCTGTTCCACTTTCGAGGTTTCGTTTGATTCTT  
GGCTGAGGGGTCAGTTTTATGGCTGGGAGGTGCAGAATTACACAGAAGTCCCAGTCTGAGGATGTCCTTGGTGCT  
TGGGGGATACGGGTTCTGTCCACAGAGTCCCTTGGAGGGAAAGGTGTGGGCTCCAGCTTCTCCAGGCGTCTGCGG  
AGCCACAGTTGAAGCCACATCGTTTTGCTGTTGAATGGGGTTTAAATCAGAATTAACATTTGCCACCCCCCG  
TGGAAGTTTGAAGATTTTAAAAATAGAAATGTACATTTTTCAAGCTGTTTTTCTTTATGTTTTGAAGGACCATT  
TTTAATTAGCTCTTTGATACAAAGTAAGTACAGAACGTCAAAACCTATACCCACTAAAGGGAAGGCTGCCGGGAAG  
GCAAATGGAACAGGAATGGAGCCTGTCTCAGGAAGGCCAGCTGCAGGTCCTCCAGAAAATCAAAGAAGGGAAGAA  
ACTCTGAGTTTGAGGTACAGGGGCTTCGGGGTGACAGCTCCCTCCAGGGCCCATGGTCAGTATTGCACCTGTGT  
TATGAACCCCCAGATGCTGTGCAGGGCAGGGCGGGGGCTGCTGTTTTATTGGGGAGGGGAGCATCCTAAAAATG  
GGGTCCAGGCAGACCCCTCCAGACCTCACACTGCCGAGGAGGCCTTCCCAAAGGGCGTCTCCCGGGATGCAGA  
CGGCAGGTGTGTGGGAAGCGCCGTTTAAATACACAGCACGACGTATCCTTGTACCGACTTCTCCCGGTTCTTGTT  
TGAAAATACTGTAGTTCAGGCTCTTGATCTAGATGGCAGATAGGAACCTTCTTGTACAAAAATACTGGAGGAAA  
ATGTTGTAAAAATAGACTTTTGACACACAGCTGTTGGGGCTGCACTGAGCTGCAATTTTTAACATGGATTTATA  
ACTTAATGTTTCTGTTTATAAAATACTAATGATTTGCAATGTATTTTACTGGCCAATTTAAACAGATGTTTTATT  
CTTTCTGAA

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**FIGURE 1284**

MFQVIQPERALYIQANNCVEAKDWIDILTKVSQCNQKRLTVYHPSAYLSGHWLCCRAPSDSAPGCSPCTGGLPAN  
IQLDIDGDRETERIYSLFNLYMSKLEKMQEACGSKSVYDGPEQEEYSTFVIDDPQETYKTLKQVIAGVGALEQEH  
AQYKRDKFKKTKYGSQEHPIGDKSFQNYIRQQSETSTHSI

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**FIGURE 1285**

GTGCAGTTGCGGCTCCAGGGCC**ATG**GCGGAGGAGCAGGGCCGGGAACGGGACTCGGTTCCCAAGCCGTCGGTGCT  
GTTCTCCACCCAGACCTGGGCGTGGGCGGCGCTGAGCGGCTGGTGTGGACGCGGCGCTGGCGCTGCAGGCGCG  
CGGGTGTAGCGTGAAGATCTGGACAGCGCACTACGACCCGGGCCACTGTTTCGCCGAGAGCCGCGAGCTACCGGT  
GCGCTGTGCCGGGGACTGGCTGCCGCGAGGCCTGGGCTGGGGCGGGCCGCGGCGCCGCGCTCTGCGCCTACGTGCG  
CATGGTTTTCTTGGCGCTCTACGTGCTGTTCTCGCCGACGAGGAGTTCGACGTGGTAGTGTGCGACCAGGTGTC  
TGCCTGTATCCCAAGTGTTCAGGCTGGCTAGACGGCGGAAGAAGATCCTATTTTACTGTCACCTCCAGATCTGCT  
TCTACCAAGAGAGATTCTTTTCTTAAACGACTATACAGGGCCCCAATTGACTGGATAGAGGAATACACCACAGG  
CATGGCAGACTGCATCTTAGTCAACAGCCAGTTCACAGCTGCTGTTTTTAAGGAAACATTCAAGTCCCTGTCTCA  
CATAGACCCTGATGTCCTCTATCCATCTCTAAATGTCACCAGCTTTGACTCAGTTGTTCTGAAAAGCTGGATGA  
CCTAGTCCCCAAGGGGAAAAAATTCCTGCTGCTCTCCATCAACAGATACGAAAGGAAGAAAAATCTGACTTTGGC  
ACTGGAAGCCCTAGTACAGCTGCGTGGAAGATTGACATCCCAAGATTGGGAGAGGGTTTCATCTGATCGTGGCAGG  
TGGTTATGACGAGAGAGTCTTGGAAGATGTGGAACATTATCAGGAATTGAAGAAAATGGTCCAACAGTCCGACCT  
TGGCCAGTATGTGACCTTCTTGAGGTCTTTCTCAGACAAACAGAAAATCTCCCTCCTCCACAGCTGCACGTGTGT  
GCTTTACACACCAAGCAATGAGCACTTTGGCATTGTCCCTCTGGAAGCCATGTACATGCAGTGCCCAGTCATTGC  
TGTTAATTCGGGTGGACCTTGGAGTCCATTGACCACAGTGTACAGGGTTTCTGTGTGAGCCTGACCCGGTGCA  
CTTCTCAGAAGCAATAGAAAAGTTCATCCGTGAACCTTCCTTAAAAGCCACCATGGGCCTGGCTGGAAGAGCCAG  
AGTGAAGGAAAAATTTTCCCTGAAGCATTTACAGAACAGCTCTACCGATATGTTACCAAAGTCTGGTAT**TAATC**  
AGATTGTTTTTAAGATCTCCATTAATGTCATTTTTATGGATTGTAGACCCAGTTTTTGAAACCAAAAAAGAAACCT  
AGAATCTAATGCAGAAGAGATCTTTTAAAAAATAAACTTGAGTCTTGAATGTGAGCCACTTTCCTATATACCACA  
CCTCCCTGTCCACTTTTCAGAAAAACCATGTCTTTTATGCTATAATCATTCCAAATTTGCCAGTGTTAAGTTAC  
AAATGTGGTGTCAATCCATGTTTCAGCAGAGTATTTAATTATATTTTCTCGGGATTATTGCTCTTCTGTCTATAA  
ATTTTGAATGATACTGTGCCTTAATTGGTTTTCATAGTTTAAAGTGTGTATCATTATCAAAGTTGATTAATTTGGC  
TTCATAGTATAATGAGAGCAGGGCTATTGTAGTTCCCAGATTCAATCCACCGAAGTGTTCACTGTCTATCTGTAG  
GGAAATTTTGTGTGCTGCTTTGCCTGGATCCATAGCGAGAGTGCTCTGTATTTTTTTTAAAGATAATTTGTAT  
TTTTGCACACTGAGATATAATAAAAGGTGTTTATC

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**FIGURE 1286**

MAEEQGRERDSVPKPSVLF LHPDLGVGGAERLV LDAALQARGCSVKI WTAHYDPGHCFAESREL PVR CAGDWL  
PRGLGWGGRGA AVCA YVRMVFLALYVLF LADEEFDVV VCDQVSACIPV FRLARRRKKILFYCHFPD LLLTKRDSF  
LKRLYRAPIDWIEEYTTGMADCILVNSQFTAAVFKETFKSLSHIDPDVLYPSLNVTSFDSVVPEKLDDLV PKGKK  
FLLSINRYERKKNLTLALEALVQLRGRLTSQDWERVHLIVAGGYDERVLENVEHYQELKKMVQQSDLGQYVTF L  
RSFSDKQKISLLHSCTCVLYTPSNEHFGIVPLEAMYMQCPVIAVNSGGPLESIDHSVTGFLCEPDVHFSEAIEK  
FIREPSLKATMGLAGRARVKEKFSPEAFTEQLYRYVTKLLV

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**FIGURE 1287**

AAGTAAGAATTATAAATCTATCTCAGTTAAAAGTAGGATCTTTGTTTTTATTCAGATATTTTGAAAGTTTAGAAG  
CATTTTGTATGCTACTTTGGTATTTCTTAAGTATAGTCAGCAGGAAAGGTAACCTGTTTTATGCAAAATTTTTT  
TAATTTGTCAAATGTTTTTAGTGTGTCTACTTTCTGAAATAGTCTCAATATCCTGTCTGTATCCTAGGCAGATAA  
CTACACAAGAACAAAACGCTATATAGAAAAGAAAATATTTGAGGAAATCTTAAATCCATAAGAAAGTAATTCTT  
GCAAGAATGTTGGCTACATATTTTTTTTTCTGTCTGAATAAATTACATCATTAGGTCTGTTGAAGCTTTTGAAG  
CTACCACTATTCTTTCTGGGATAAAGGCTAATTACTGATTTATCTGCCCTCAAAATCCCAGAGTTAATTCTAATT  
GAGTACTAAATTAACAGTAAGTAGTTAACACAGAGAACTAAAATTTAACCGCATTATATCACTGTATATATTTCT  
CATGATTTTTGCTAATTAGAGCATTTACTTAACCAGTAATAAACTNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN  
NNGTGTGTGTGTGTATATACTTGGCTCTGACACAACCTCTGGTGCTTAATTAGGATATGTTCTATTATGTATTTTG  
AATGTTTATCCTGCTAGTGCGATGAACTTTTGTTGGAAAAGCAGAATTAGAAGGAACAGTTTTTCAATCAGTTTC  
ATTTGGTAATTACAGGAAAACCTTGAGTTGCTCTAATTTAATTTTTCCAATTAATACATTTAGACTTTAAATTGC  
ATCCGTAATTTCTCTTGGCTGAAAACAGTGGTATTTTAAGACAGTTTTGTTATACATGTGACTTACTTTTGACTC  
AGCCTGAGAGGAGGAAATGTAAAGAGATAAGAGATTTGGCCCAAAGCAGCAAGAGACTAGTAACCTTGAGCCAGG  
ACGAAGCCAAGACAACGTGACTCCCAAGTAGCAGGAGCAGAGGTCGGTCACCTGTGGCATTCTGTTTCATTCCCT  
TTTAAAATTATGAGACTTTATAGGCAGTGTAACATCAGCAGGCAGCGATGTGATAGGATGTGCGAAAAGCTG  
GTCTGATACCATGGCTATAATTACAGAGCTTTAGTTCAATTAGGATTTTGTAATGAGCAAATGACCTTTTTTTC  
CAGTGCCCCCTGTAAATAGTTAATATGAGTCCATGCAATCTTGATGCCATTCTCCTGAAGGTGTTGATTTCTGG  
TACCCAGCCAGCTTAGCTTTGGCTGCTGGAAGCACAGTAGGTACTGATGATTACTTCTGGAATCTTGACAGGC  
TTATTGTACTGTGTAATGGGGAAAAGTTAAAGTATAATGTTTGGTGTTAATAAATGACTGATGTGAAAATAGGAA  
CATGTGTCTTTAATATCAAATATGGCTTTATTTGCAGTGAAATCTAAATTCCTTATTCTACAGTAGTATTTTCTT  
GCCCTGTGTTGTATATTTTCTAAATACATTTTTTCTGACAGTGGCTTTAGGCCAGTTGAACACACTTAGACTGA  
AAGTGTTTAACTTAAAGAGATCAGTCCAGAAACCATGATAAATTAGAATCTTTATCTGGAATTACCAAATTA  
TTTAAAATCATGGTCCAGAAGAGAACAACATTCATGGTTTTTTTTTATCCTACTGCTCATTTTTTAGGTCTGTGTT  
TACATCTAGTCTCTACTATTTGTGAAGTATGTCATTATTTTTTCAAGTTCTTCTTTGACTTAACTGAAAAATAA  
TATTCCAAATTTCTTAATGTAACATGAAAAGAGAAATACAATTTTTGCTTAAAAGACATTTTTTAAAAGCGTTCA  
ATTCAGTAATCATTTCTGTTAATACAGGAAGTTTTTTTGGCTTGCCAGTTATATACTGTGGGTATTTTTTAAAT  
GTGCTACCCCTGGGTGTCTCATATCACCTTGCGTAATCATGTATTACAAAGTTGATAATTGTCATTTCTCAGA  
TGTCTGTATGTTACATTGGCAGCAGTAAAATGTTTTAATGTTGTACCTTTTAAATAATTGTGTTGATTAACAT  
GCCTCATATTTCTGGGGAACTTGAAATATATCTAAACAAAAAGGTCTGTTATAAATAGGAATTGGCATTTC  
TTGTTAATGTTTTTCTCATAAAAATAGTTACACCAAAAGTGACATATTGTCTATTACATGGGCCCAATCAGTA  
TTAAAGTACTCCCTTACTCAAAAATATTAATAAATAATTATGACACTTAGTAGCATTTTCATTGATTGTTTCA  
AAAGATCTTCATAATGGTCAAATTGTCCAATTCACAAAAGAGTGAGAAAGTTGTTTTAGTACTGGGAATTTT  
AACCTTAGTTTTAAGACCAAAAATATCTCTTATTAGCTTGAACATTTTGATTAATTTTCCCTCCCGGATCTA  
GTCCTTTTAAAGGAGTAAGTCTAAAGAATGAGGCCATGAAGTCACTATTCTCCACCTCAGTTTGTCTCCTGGT  
ACTTAGCTGGCCTATCGCTTTGTGTGGCAATACCCCTGGGTGCTTCCCCACTCAGCCTTCTGTATCTGCTGTT  
ACAGGACATGCCATTATGTCTT



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**FIGURE 1288**

MKSLFPPTSVCLLVLSWPIALCGNTPGSLPHSAFCICCSQDMPLC

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**FIGURE 1289A**

TACTGGACAAACATTTCTCTCCAAGGACACAGCTCTCTGCCTCCATGTCAACCACCTTTGAAGGACTGACTGATTCC  
CTCGGCTGGTGCCAGTGCTCTCTGCCATGGGGCCCGCGGGAGCCTGCTGGGCAGCGGACAGATGCAGATCA  
CCCTGTGGGGAAGTCTGGCAGCTGTCGCCATTTTCTTCGTCAATCACCTTCTCATCTTCCCGTGCTCTAGTTGTG  
ACAGGGAAGAAGCCGCGACAGCATAGTGGGGACCATGAGAACCTGATGAACGTGCCTTCAGACAAGGAGATGT  
TCAGCCGTTTCACTTAGCCTGGCAACAGATGCTCTGCCAGCAGTGAGCAGAATGGGGCACTACCAATGGGG  
ACATTCTTTCAGAGGACAGTACTCTGACCTGCATGCAGCATTACGAGGAAGTCCAGACATCGGCCTCGGATCTGC  
TGGATTCCCAGGACAGCACAGGGAACCAAAATGTCATCAGAGTCGGGAGCTGCCAGAATCCCTCCCAGAGCG  
CAGTGGATACCATGCTCACGGCGAGAAGTGTGGACGGGGACAGGGGCTGGGGATGGAAGGGCCCTATGAAGTGC  
TCAAGGACAGCTCTCTCCAAGAAAACATGGTGGAGGACTGCTTGTATGAACTGTGAAGGAGATCAAGGAGGTGG  
CTGCAGCTGCACACCTGGAGAAAGGCCACAGTGGCAAGGCAAAATCTACTTCTGCCTCGAAAGAGCTCCCAGGGC  
CCCAGACTGAAGGCAAAGCTGAGTTTGCTGAATATGCCTCGGTGGACAGAAAACAAAAATGTCGTCAAAGTGTTA  
ATGTAGAGAGTATCCTTGGAATTCATGTGATCCAGAAGAGGAGGCCCCACCACCTGTCCCTGTTAAGCTTCTGG  
ACGAGAATGAAAACCTTCAGGAGAAGGAAGGGGGAGAGGCGGAAGAGAGTGCCACAGACACGACCAGTGAAACTA  
ACAAGAGATTTAGTCTATTGTCATACAAGTCTCGGGAAGAAGACCCCCACTCTCACAGAAGAAGAGATCTCAGCTA  
TGTACTCATCAGTAAATAAACCTGGACAGTTAGTGAATAAATCGGGGACAGTCGTTACAGTTCCGGAGTCCACCT  
ACACCTCCATTCAAGGGGACCCACAGAGGTACCCTCCTCTGTAATGATCTCTATGCTACTGTTAAAGACTTCG  
AAAAAACTCCAAACAGCACACTTCCACCAGCAGGGAGGCCAGCGAGGAGCCAGAGCCTGATTATGAAGCGATAC  
AGACTCTCAACAGAGAGGAAGAAAAGGCCACCCTGGGGACCAATGGCCACCACGGTCTCGTCCCAAAGGAGAACG  
ACTACGAGAGCATAAGTGACTTGCAGCAAGGCAGAGATATTACCAGGCTCTAGCAACCCAGAAGACAACCCTGGG  
TAGCCTGTGATCAGTGTCTGGAGACGTTTCTTCTGTGGAAGAGAAGAAGTGACACAAACCTATACTTCATATGCT  
GCTTTAGTCACTGAAGATGGTTGGAGAGGCCCTGTGACTGTTCTCCAGTTGTTTCAGTTTCTGAGACAGAGAG  
GTACGGACTAGGCTGCACCTGAGTGTGCCCTGCCTGCCAGATGGACAGGTACACCCAAGCACATCTCCCTGCTG  
CACCTCACCACCCACAAAAGATCCAGCTGTGAGTGGTCTCATCTCATTAGTGAGGAAAGCCAAGCTGTATGGA  
AAAGCTGCACTACCAAGGACCACAATGCCCCGGCCTAAAGTACTGCCATTTCAGAAAAGCAGGTTTTTCTTCTCT  
CTCTTTCTTTTCTCTGTCTGTACTGACTTTAAGGCTTTTTCCCCCTTGAAATGTCCAGATTCTGTGGTTTAT  
CCCAAGGAAATTTTACACAAAGCTTGGCCTTTGCCCTCAATATAGGTGTTTTAGGATGGTGACAAACCATGGCT  
GCTGCTTTCTGCCAGCTCGCCAGTCTCCCCAAAGAGTTGCGCATCAGCACCTGGGGATCTGGACCCTGCGGGT  
GAAGGGATGGGGAGGGACGTCCCTGGAGTCTCTTCTGTCTTTGTTCTTCTTATTTTGGCATTTCGATATCAGCAG  
CCTCTCCCCAAAGTACTTGAAGTCAGTTTTAGATGCTTTATTTTATTTTCTAGTCAAAAACGTGTTTCCCCCAG  
TGTTTGAAAACCTCGTCCGAATCTTTTTCAGTATTTTCCATGAGTATTGTGGTACTTCTAGACTTGTTTAAGCCAG  
AACTCATCTCTTCAAAACAGAGAGCCTTAATCTTTATGTTGGGACACAGACCACATATTTGGACGGCAGCCATGC  
ATCCATCGCTGAAGGGCTGTGGACATGAATGTGTATTTCCCATGGTCTCCGCTGCCACACCAACAGTGTGGCAT  
CTCATAAGTTAACTGCTACCCTAAGGTAATCTAAGATTAAATGTAAACATTTATTTTGTATGTAAGTTTATA  
AGATGTTTTATGTTCAATGCCTAATTTCTCAAAAGTGCCAGAAAAAATGTATATTAGCTATTTTGATTTTATGT  
ACAATGATTTTATACTCTCTTTTGAAGATAACCATAAAGCACATAAGCTAGATCACTACAAGGAGCTGTTATCT  
TTTTTCTAATCAAGTGTTTAAACACTGATGGTTTTTAAAGACTCACCTTTTTAAATGGTACTTGGAGCTCCTGA  
TTCAAAATTACCTAGACCCCTAGAGAAATAAATGGAATATACATAAATAATCATTTTTCAGTGGTTTATGGTGGGC  
AATATTGCAATATTTGAAATGGTAAAAATGGAAGAAGAACAAAATATGATGAGAGGTGGCTGTGAATTATAAAC  
CTCATAAAAGTGTCATAATTCCATTAAAGGTTTAAATTATTTTTTCAGAAAACAGTGATGAATTCTGTAGTCCAG  
TGCTTGCCAATGCAAATTGCCTATTGGAATCTTCTTCTATATTTTACAAACATCAGTGGCTGAAATAGCTCAGA  
GTAAGAGCTCAGCCTGGTTTGAATTTAATCATCTCTTTAGATCTTATAAGGCCAGCATTAGGAACTTGTTCCT  
TTTCATTTTCAAAGGAGCCTAGTTGAAGTGCTATTATGAGTGTGGGCTATGGAAAGACAGCTTTTCTTACACTGA  
TAAAGAAAAAATGAGGAAATTTTTCATCCCCTTGTGACATCTGTGACTTTTTGGATTTAATAATCTTGCTGT  
TTTTCTCTTTATGACAAAGAATATAATTGGGAGGATGAAGTGCTTAAAAATTTAGAGAGCAGCTCACTGGAA  
TGTTTTTCCATCCCTGTATTTCATGGCTTGACTTTGTGACTGCTCTACACTGCATGCTGTGACATTGCAGAGTGAGC  
TATGTTGAGGTAACTGGTTGGTTGTTCATTATTTTGAATCAGCCTGGTCTCTCCCATGAAGATGTCGTGTGCAT  
AAGCACAATCATCACTGATTAGAAGATCACAGCAGAATACCCTTGGATTAGAGAGAAGTTCGTACCTTGCATTTCT  
TCTGAATTCTAGTCTCTCATAAGCACTGCTTTGCTGGATGATTTTCACTGCTTTGTGTTAATGACTTTGAGCGAT

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**FIGURE 1289B**

CTCTCACATGATGGGGTTCTTTAGTACATGGTAACAGCCATGTCATCTTACACACCTAGCATTGTGAATGCTGTA  
GTGACATCCTTTATAGGCACCTTACAGCTCAAACTTTTGTTTCATTCATGCCTTACTTATCAAAAAGGCAGGA  
AAGTAGGTATGATCTCTAAAGTAAAAAAA

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**FIGURE 1290**

MGPAGSLLGSGQMQITLWGSLAAVAIFFVITFLIFPCSSCDREKKPRQHSGDHENLMNVPSDKEMFSRSVTSLAT  
DAPASSEQNGALTNGDILSEDSTLTCMQHYEEVQTSASDLLDSQDSTGKPKCHQSRELPRIPPESAVDTMLTARS  
VDGDQGLGMEGPYEVLDSSSQENMVEDCLYETVKEIKEVAAAAHLEKGHSGKAKSTSASKELPGPQTEGKAFA  
EYASVDRNKKCRQSVNVESILGNSCDPEEEAPPPVPVKLLDENENLQEKEGGEAEESATDTTSETNKRFSLSYK  
SREEDPTLTEEEISAMYSSVNKPGQLVNKSGQSLTVPESTYTSIQGDPQRSPPSCNDLYATVKDFEKTNPSTLPP  
AGRPSEEPEPDYEAIQTLNREEEKATLGTNGHHGLVPKENDYESISDLQQGRDITRL

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**FIGURE 1291**

AGCTATTTCAAGGCGCGCGCTCGTGGTGGACTCACCGCTAGCCCGCAGCGCTCGGCTTCCTGGTAATTCTTCAC  
CTCTTTTCTCAGCTCCCTGCAGCATGGGTGCTGGGCCCTCCTTGCTGCTCGCCGCCCTCCTGCTGCTTCTCTCCG  
GCGACGGCGCCGTGCGCTGCGACACACCTGCCAACTGCACCTATCTTGACCTGCTGGGCACCTGGGTCTTCCAGG  
TGGGCTCCAGCGGTTCCCAGCGCATGTCAACTGCTCGGTTATGGGACCACAAGAAAAAAGTAGTGGTGTACC  
TTCAGAAGCTGGATACAGCATATGATGACCTTGGCAATTCTGGCCATTCACCATCATTTACAACCAAGGCTTG  
AGATTGTGTTGAATGACTACAAGTGGTTTGCCTTTTTTAAGTATAAAGAAGAGGGCAGCAAGGTGACCACTTACT  
GCAACGAGACAATGACTGGGTGGGTGCATGATGTGTTGGGCCGGAACCTGGGCTTGTTTCACCGGAAAGAAGGTGG  
GAACTGCCTCTGAGAATGTGTATGTCAACACAGCACACCTTAAGAATTCTCAGGAAAAGTATTCTAATAGGCTCT  
ACAAGTATGATCACAACTTTGTGAAAGCTATCAATGCCATTGAGAACTTGGACTGCAACTACATACATGGAAT  
ATGAGACTCTTACCCTGGGAGATATGATTAGGAGAAGTGGTGGCCACAGTCGAAAAATCCCAAGGCCCAAACCTG  
CACCCTGACTGCTGAAATACAGCAAAAGATTTTGCATTTGCCAACATCTTGGGACTGGAGAAATGTTTCATGGTA  
TCAATTTTGTGCTAGTCCCTGTTTCAAACCAAGCATCCTGTGGCAGCTGCTACTCATTGCTTCTATGGGTATGCTAG  
AAGCGAGAATCCGTATACTAACCAACAATTCTCAGACCCCAATCCTAAGCCCTCAGGAGGTTGTGTCTTGTAGCC  
AGTATGCTCAAGGCTGTGAAGGCGGCTTCCCATACTTATTGCAGGAAAGTACGCCCAAGATTTTGGGCTGGTGG  
AAGAAGCTTGCTTCCCCTACACAGGCACTGATTCTCCATGCAAAATGAAGGAAGACTGCTTTTCGTTATTACTCCT  
CTGAGTACCACTATGTAGGAGGTTTCTATGGAGGCTGCAATGAAGCCCTGATGAAGCTTGAGTTGGTCCATCATG  
GGCCCATGGCAGTTGCTTTTGAAGTATATGATGACTTCCCTCCACTACAAAAAGGGGATCTACCACCACACTGGTC  
TAAGAGACCCCTTCAACCCCTTTGAGCTGACTAATCATGCTGTTCTGCTTGTGGGCTATGGCACTGACTCAGCCT  
CTGGGATGGATTACTGGATTGTTAAAAACAGCTGGGGCACCGGCTGGGGTGAGAATGGCTACTTCCGGATCCGCA  
GAGGAACTGATGAGTGTGCAATTGAGAGCATAGCAGTGGCAGCCACACCAATTCCTAAATTGTAGGGTATGCCTT  
CCAGTATTTTATAATGATCTGCATCAGTTGTAAAGGGGAATTGGTATATTACAGACTGTAGACTTTCAGCAGCA  
ATCTCAGAAGCTTACAAATAGATTTCCATGAAGATATTTGTCTTCAGAATTAAACTGCCCTTAATTTTAATATA  
CCTTTCAATCGGCCACTGGCCATTTTTTTCTAAGTATTCAATTAAGTGGGAATTTTCTGGAAGATGGTCAGCTAT  
GAAGTAATAGAGTTTGCTTAATCATTTGTAATTCAAACATGCTATATTTTTTAAATCAATGTGAAAACATAGAC  
TTATTTTTAAATTGTACCAATCACAAGAAAATAATGGCAATAATTATCAAACTTTTAAATAGATGCTCATATT  
TTTAAATAAAGTTTTTAAATAACTGCA

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**FIGURE 1292**

MGAGPSLLLAALLLLLSGDGAVRCDTPANCTYLDLLGTWVFQVGSSGSQRDVNCSVMGPQEKVVVYLQKLD  
TAYDDLGN SGHFTIIYNQGF EIVLNDYKWF AFFKYKEEGSKVTTYCNETMTGWVHDVLGRNWACFTGKKVGT  
ASENVYVNTAHLKNSQEKYSNRLYKYDHN FVKAINAIQKSWTATTYMEYETLTLGDMIRRS GGHSRKIP  
RKPAPLTA EIQQKILHLPTSWDWRNVHGINFVSPVRNQASCGSCYSFASMGMLEARIRILTNN SQTPILSPQ  
EVVSCSQYAQGCEG GFFPYLIAGKYAQDFGLVEEACFPYTGTDSPCKMKEDCFRYY SSEYHYVGGFYGGC  
NEALMKLELVHHGPM AVAFEVYDDFLHYKGIYHHTGLRDPFNP FELTNHAVLLVGYGTDSASGMDYWIVKNS  
WGTGWGENGYFRIRRG TDECAIESIAVAATPIPKL

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**FIGURE 1293A**

CGACTCCTTAGAGCATGGCATGGCTCAGAGGTGCTGGTAAACTGATGGGGGTTTTTGCTGTCCCTCCCCTCAGC  
GCCGACACC**ATG**TGGATCCAGGTTTCGGACCATGGACGGGAGGCAGACCCACACGGTGGACTCGCTGTCCAGGCTG  
ACCAAGGTGGAGGAGCTGAGGCGGAAGATCCAGGAGCTGTTCCACGTGGAGCCAGGCCTGCAGAGGCTGTTCTAC  
AGGGGCAAACAGATGGAGGACGGCCATACCCTCTTCGACTACGAGGTCCGCCTGAATGACACCATCCAGCTCCTG  
GTCCGCCAGAGCCTCGTGCTCCCCACAGCACCAAGGAGCGGGACTCCGAGCTCTCCGACACCGACTCCGGCTGC  
TGCCTGGGCCAGAGTGAGTCAGACAAGTCTCCACCCACGGCGAGGCGGCCGCCGAGACTGACAGCAGGCCAGCC  
GATGAGGACATGTGGGATGAGACGGAATTGGGGCTGTACAAGGTCAATGAGTACGTTCGATGCTCGGGACACGAAC  
ATGGGGGCGTGGTTTGGGGCGAGGTGGTCAGGGTGACGCGGAAGGCCCCCTCCCGGACGAGCCCTGCAGCTCC  
ACGTCCAGGCCGGCGCTGGAGGAGGACGTCAATTTACCACGTGAAATACGACGACTACCCGGAGAAGGGCGTGGTC  
CAGATGAACTCCAGGGACGTCCGAGCGCGCGCCCGACCATCATCAAGTGGCAGGACCTGGAGGTGGGCCAGGTG  
GTCATGCTCAACTACAACCCCGACAACCCCAAGGAGCGGGGCTTCTGGTACGACGCGGAGATCTCCAGGAAGCGC  
GAGACCAGGACGGCGCGGGAACCTCTACGCCAACGTGGTGCTGGGGGATGATTCTCTGAACGACTGTTCGGATCATC  
TTCGTGGACGAAGTCTTCAAGATTGAGCGGCCGGGTGAAGGGAGCCCCATGGTTGACAACCCCATGAGACGGAAG  
AGCGGGCCGTCTTGAAGCACTGCAAGGACGACGTGAACAGACTCTGCCGGGTCTGCGCCTGCCACCTGTGCGGG  
GGCCGGCAGGACCCCGACAAGCAGCTCATGTGCGATGAGTGCGACATGGCCTTCCACATCTACTGCCTGGACCCG  
CCCCCTCAGCAGTGTTCAGCGAGGACGAGTGGTACTGCCCTGAGTGCCGGAATGATGCCAGCGAGGTGGTACTG  
GCGGGAGAGCGGCTGAGAGAGAGCAAGAAGAAGGCGAAGATGGCTCGGCCACATCGTCTCACAGCGGGACTGG  
GGCAAGGGCATGGCCTGTGTGGGCCGACCAAGGAATGTACCATCGTCCCGTCCAACCACTACGGACCCATCCCG  
GGGATCCCCGTGGGCACCATGTGGCGGTTCCGAGTCCAGGTGACGAGTCGGGTGTCCATCGGCCCCACGTGGCT  
GGCATAACGGCCGGAGCAACGACGGAGCGTACTCCCTAGTCTGGCGGGGGCTATGAGGATGACGTGGACCAT  
GGGAATTTTTTACATACACGGGTAGTGGTGGTCGAGATCTTCCGGCAACAAGAGGACCGCGGAACAGTCTTGT  
GATCAGAACTCACCAACACCAACAGGGCGCTGGCTCTCAACTGCTTTGCTCCCATCAATGACCAAGAAGGGGCC  
GAGGCCAAGGACTGGCGGTGCGGGAAGCCGGTCAGGGTGGTGCGCAATGTCAAGGTGGCAAGAATAGCAAGTAC  
GCCCCCGCTGAGGGCAACCGCTACGATGGCATCTACAAGTTGTGAAATACTGGCCCGAGAAGGGGAAGTCCGGG  
TTTCTCGTGTGGCGCTACCTTCTGCGGAGGGACGATGATGAGCCTGGCCCTTGGACGAAGGAGGGGAAGGACCGG  
ATCAAGAAGCTGGGGCTGACCATGCAGTATCCAGAAGGCTACCTGGAAGCCCTGGCCAACCGAGAGCGAGAGAAG  
GAGAACAGCAAGAGGGAGGAGGAGGAGCAGCAGGAGGGGGGCTTCGCGTCCCCAGGACGGGCAAGGGCAAGTGG  
AAGCGGAAGTCGGCAGGAGGTGGCCGAGCAGGGCCGGGTCCCGCGCCGACATCCAAGAAAACCAAGGTGGAG  
CCCTACAGTCTACGGCCCAGCAGAGCAGCCTCATCAGAGAGGACAAGAGCAACGCCAAGCTGTGGAATGAGGTC  
CTGGCGTCACTCAAGGACCGGCCGGCGAGCGGCAGCCCGTTCCAGTTGTTCTGAGTAAAGTGGAGGAGACGTTT  
CAGTGTATCTGCTGTCCAGGAGCTGGTGTTCGGGCCCATCACGACCGTGTGCCAGCACAACTGTGCAAGGACTGC  
CTGGACAGATCCTTTTCGGGCACAGGTGTTTCACTGCCCTGCCTGCCGCTACGACCTGGGCCGAGCTATGCCATG  
CAGGTGAACCAGCCTCTGCAGACCGTCTCAACCAGCTCTTCCCCGGCTACGGCAATGGCCGGT**GTG**ATCTCCAAGC  
ACTTCTCGACAGGCGTTTGTGTAACAGTGTGCGAGGGCTCGTTTCATCGGCACTGATTTTGTTCCTTAGTGGCT  
TAACTTAAACAGGTAGTGTTCCTCCGTTCCCTAAAAAGGTTTGTCTTCCTTTTTTTTTATTTTTATTTTTCAA  
TCTATACATTTTCAGGAATTTATGTATTCTGGCTAAAAGTTGGACTTCTCAGTATTGTGTTTAGTTCCTTTGAAA  
CATAAAAGCCTGCAATTTCTCGACAAAACAACAAGATTTTTTAAAGATGGAATCAGAACTACGTGGTGTGGA  
GGCTGTTGATGTTTCTGGTGTCAAGTTCTCAGAAGTTGCTGCCACCAACTCTTTAAGAAGGCGACAGGATCAGTC  
CTTCTCTAGGGTTCTGGCCCCAAGGTGAGAGCAAGCATCTTCTGACAGCATTTTGTTCATCTAAAGTCCAGTGA  
CATGGTTCCCCGTGGTGGCCCGTGGCAGCCCGTGGCATGGCGTGGCTCAGCTGTCTGTTGAAGTTGTTGCAAGGA  
AAAGAGGAAACATCTCGGGCCTAGTTCAAACCTTTGCCTCAAAGCCATCCCCACCAGACTGCTTAGCGTCTGAG  
ATCCGCGTGAAAAGTCTCTGCCACGAGAGCAGGGAGTTGGGGCCACGCAGAAATGGCCTCAAGGGGACTCTGC  
TCCACGTGGGGCCAGGCGTGTGACTGACGCTGTCCGACGAAGGCGGCCACGGACGGACGCCAGCACACGAAGTCA  
CGTGCAAGTGCTTTGATTCTGTTCTTTCTTCTAAAGACGACAGTCTTTGTTGTTAGCACTGAATTATTGAAAA  
GTCAACCAGATTCTAGAACTGCGGTATCCAGTTCTTCTGACACCGGATGGGTGCTTGGGAACCGTTTGAGCC  
TTATAGATCATTTACATTCAATTTTTTTAACTCAGCAAGTGAGAACTTACAAGAGGGTTTTTTTTTAATTTTTT  
TTCTCTTAATGAACACATTTTCTAAATGAATTTTTTTGTAGTTACTGTATATGTACCAAGAAAGATATAACGTT  
AGGGTTTGGTTGTTTTGTTTTGTATTTTTTTCTTTTGAAGGGTTTGTTAATTTTTCTAATTTTACCAAAGT

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**FIGURE 1293B**

TTGCAGCCTATACCTCAATAAAACAGGGATATTTTAAATCACATACCTGCAGACAACTGGAGCAATGTTATTTT  
TAAAGGGTTTTTTTACCTCCTTATTCTTAGATTATTAATGTATTAGGGAAGAATGAGACAATTTTGTGTAGGCT  
TTTTCTAAAGTCCAGTACTTTGTCCAGATTTTAGATTCTCAGAATAAATGTTTTTCACAGATTGAAAAAAAAAA  
AAA



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**FIGURE 1294**

MWIQVRTMDGRQTHTVDSLSRLTKVEELRRKIQELFHVEPGLQRLFYRGKQMEDGHTLFDYEVRLNDTIQLLVRQ  
SLVLPSTKERDSELSDTDSGCCLGQSESDKSSTHGEAAAETDSRPADEDMWDETELGLYKVNEYVDARDTNMGA  
WFEAQVVRVTRKAPSRDEPCSSSRPALEEDVIYHVKYDDYPENGVVQMNSRDVRRARTIIKWQDLEVGQVVML  
NYPNDNPKERGFWDYDAEISRKRETRTARELYANVVLGDDSLNDCRIIFVDEVFKIERPGE GSPMVDNPMRRKSGP  
SCKHCKDDVNRLCRVCACHLCGGRQDPDKQLMCDECDMAFHIYCLDPPLSSVPSEDEWYCPECRNDASEVVLAGE  
RLRESKKKAKMASATSSSQRDWKGGMACVGRTECTIVPSNHYGPIPGIPVGTMMWRFRVQVSESGVHRPHVAGIH  
GRSNDGAYSLVLAGGYEDDVHGNFFTYTGSGGRDLGNGKRTAEQSCDQKLTNTNRALALNCFAPINDQEGAEAK  
DWRSGKPVVRVVRNVKGGKNSKYAPAEGNRYDGIYKVVKYWPEKGKSGFLVWRYLLRRDDDEPGPWTKEGKDRIKK  
LGLTMQYPEGYLEALANREREKENS KREEEEQEGGFASPRTGKGKWKRSAGGGPSRAGSPRRTSKKTKVEPYS  
LTAQQSSLIREDKSNAKLWNEVLASLKDRPASGSPFQLFLSKVEETFQCICQELVFRPITTVQCQHNVCCKDCLDR  
SFRAQVFSCPACRYDLGRSYAMQVNQPLQTVLNQLFPGYGNGR

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**FIGURE 1295A**

GCGGCCGAGCCCCGCGCGAGCGCGCGGGCCAAGGGCCGCCGAGACGGTCCCCAGAGAGCCACCGGAGG  
AGCAGCTCACCTGAGAGACGGAGCCCCGGCTCGCCCGTGTGCAGAGCGGACAAGGCCAAAATCTCAGCAAGTTCGG  
ACCTCTAGTACAATAAGGCGAACCTCCTCTTTGGATACAATAACAGGACCTTACCTCACAGGACAGTGGCCACGG  
GATCCTCATGTTCACTACCTTCATGCATGAAAGACAAAGCTACTCAGACACCTAGCTGTTGGGCAGAAGAGGGT  
GCAGAAAAGAGGTACATCAGCGTTCTGCGTCATGGGGGAGTGCTGATCAACTAAAAGAGCAGATCGCCAACTG  
AGGCAGCAACTACAACGCAGTAAACAGAGTAGTCGTACAGTAAGGAGAAAGATCGCCAGTCACCTCTTCATGGC  
AACCATATAACAATCAGTCACACTCAGGCTACTGGATCAAGGTCAGTTCCTATGCCACTGTCAAATATATCAGTG  
CCAAAATCATCTGTTTTCGCGTGTGCCCTGCAATGTAGAAGGAATAAGTCCTGAATTAGAAAAGGTATTCATTAA  
GAAAATAATGGGAAGGAAGAAGTATCCAAGCCGTTGGACATACCAGATGGTCGAAGAGCTCCACTTCCTGCTCAT  
TACCGGAGCAGTAGTACTCGCAGCATTGACACTCAGACTCCTTCTGTCCAGGAGCGCAGCAGTAGCTGCAGCAGT  
CATTCACCCTGTGTCTCCCCTTTTTGTCCCCCGGAATCCCAGGATGGTAGCCCTTGCTCAACAGAAGATTTGCTC  
TATGATCGTGATAAAGACAGTGGGAGTAGCTCACCGTTACCCAAGTATGCTTCATCTCCCAAACCAACAACAGC  
TACATGTTCAAACGGGAGCCCCCAGAGGGATGTGAGCGAGTGAAGGTCTTTGAGGAAATGGCGTCTCGTCAGCCT  
ATCTCGGCCCTCTCTTTTCATGTCTTGACAAAACAAGGTTAATTTTCATCCCAACCGGATCAGCTTTCTGTCTT  
GTAAACTTCTAGGCCCTCTTACCTGCTTCTGACCTTATGCTCAAGAACTCTCCTAACTCTGGCCAGAGCTCA  
GCTTTGGCAACTCTGACCGTTGAGCAGCTCTCATCCCGGGTTTCTTTACGTCTCTTTCTGATGACACCAGCACA  
GCGGGCTCCATGGAGGCCTCTGTCCAGCAGCCATCCCAGCAGCAGCAGCTCCTGCAGGAAGTGCAGGGTGAGGAC  
CACATCTCTGCTCAGAACTATGTGATCATCTTAAAAAAGGGGGAGCTGGCCTCCACCCTGTGTTCCATGGATTCCGG  
AACAAGATTTTCAGACATCTGCATGAGTGACAACTTTCTGAACACCACCACCACCAATAATACTTATCAGCATCA  
TAAAGTATCTCTTAAACACTGATCTTGGCAGGGACGGAACCTCTATTCAGCAGTTTTTGTGGAAAGCAGTAATGC  
TTGCAAAACGTGTGTGTCATTTCAGCATTTTAAAGTGGAGACTATGCATTTTCATAGTATATTTGACAGATTAGTACT  
GTGTCTGTGTTTTGTTCAGATTCTTCAGTATAAATAAGCTCTATATCAAAAAGTTGCCTGTCTAAATAGAAAA  
TGTTCTGTGTGTTTTGTCTATGGAAAATACTGTAATTCAGGATTATGTTTACAATTGATCCAGGTGTTTGT  
CTAACTTCTGTAATACATACAATGCAAAAAAAAAAAAAAAAAATGGCCACAACAGTTGCACAGTGCCACCCTATG  
GCCTAGCTTCAGGTACTTCAGTTGAAGTCTAAACTCAGGTAACCTGGAATGTATATCATATTGGGATATTAAAT  
TTTCACAGCTAAAAAGCTAAAGAGGGAACATCACTCTTTTGCTTTTCTTATTTTATGCATTTCCCTTTCTCAT  
TACATTCCACATTCTTAGAATAAGAAGTGCAATTCCTAGGAGAATGATAATCCTGGACATGGGTGAACATGA  
GGAGAACCAGCAAAATCTGTGGTGTGTTGACATCACTTTGTTCATGTGGTTACAAGTAAACAACACTGTTGCATTAC  
TGTTTCAACATGTGTACATGTGGCTTTTTTAAAGTTTCAGGTGTTGCTCAGTAAAGGACTGTGACAATGTTGCAA  
ATAAAGTGTTCAGTACTGGACTGTACATAAACATTCCACATTGTGTGTGATGAAATTTAAAGACAAGAATGTCTA  
GAGTTAATTTCAAAATAAGTGAAGTGTGTTGACGGAATGGTTGAGATTTTTTGTGTTATGTTAGCCATCAGGGTCA  
TAACTGTTACCATTTTATCTAAAGACATATTTATATTTAGTTTCTCCCTTGGAATTTCTTTATTTTGCAGGTGAA  
AAAGTGACATACTTTTTGTTATTGTCTTCTCAAGCAGTTTAGGTGCATGATCTTCATTTACATAGAATACTTGG  
GTCTCAGAATTGATGCAACATAAGCAGTTTTTTTGGTGACTTACAAGAGCAATAGTTTGAAGCTATCTCATTTA  
AGCCTCTCATAATGCATAATCATGAGTAGTTTTTGAATTTGCAACCTGTGAGGTAGAGCATAAACTCAAGAAAAAT  
AGCCTTGAACCTTGACAGCTTTTGACACAAGTTCTCCACAAAGTGTGAAGAGAGCCCCAGGCATTCTTGATTGGTC  
AATGGGAGAGCCTAACCTTTCATTGTTTTCTTCAGTACAAAGAGTATCCAAAAGCTAAGTTTTTGTATTCCACTAC  
TTTCAGTTCAATAAAACCTAGAGTTGTTTCATCTGCGCTAAAGTGTATGGCACAATTTCTTAAAGAATTAGGGG  
AACCAGGTGCCTACAGTTAAAGGAACGTTTCAGTTCCTTTTCATTTCCTGGGTTTTCTTTTATTTTCTAAGA  
AGGTTGAAGAAGGATGAGTGATAGAGAAGAAAGCAACACCATGATTTTTTTTTTTAAGAAATGATATATATATG  
TATATGTTTGNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNAGTATTCTGTGCATTATTTTGTTCATGATCTCAATTCTCTCTT  
TCCACCAAAGTTTGTGTAATATTTTCTCCTGAAGGTGCATTCTGGCTCCTTTAAATTAGTCAGTGTTATATTGT  
AGGAGACTGTCTATGGAAAAAGGACTCAGTTTACTTTTCGTCAATTTTCACAGGGGAACCTTTTAAACAATCTTTT  
CAGCAGCAGATACCTTTAACCTAATAATCTCAGGCCTTGATGAAAAATACTATATTTTGTAGATTATGGTTAAAG  
GGGGAAAATTACTAGTTCGTAAGATAAATATGAGCTCCATTTGACTTCTGATGTCTGGTTTTAGCATTACATAAT  
ATGTTGATCTTACACTCTGCTTTTGTCCAAATAAAATGCAATAGTATCAATATCAATTTTCAGAAAAATGGACTGA  
ATATGCTTTTTTGGTGATGAAATCTCATGTACGATATTTATAGTGATGTGCTTTTATTTTCTCATGAGATACTAA  
ATATTAATTGTGTTGTACATTTGTTCTTAGCATATATTAAAGTTTTGAACCAAATGTGTTAAAGCTTACGCTTTG

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**FIGURE 1295B**

CCATGTAAATTTCCCAGAAGTTGTTGAGCTCAAATGTATCCTACATCCAGCTGTAGAAATTTGTCAGAAATTGTT  
TAAATTTTGTATATAATTGTACTGTTTAATTCTAGCCATTGCGCTGAACAGTATTTGAGTTACCATATAATATGG  
CTTTACACAAGGAAATGTGTGGCTTTTGTGTTTGTATTTTTTCAGTATAGAAGTTCCTGTGTCTTATTAAATAAA  
GTTATTAGTAAAACTGAAAA

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**FIGURE 1296**

AAAAPAEQAPRAKGRPRRSPESHRRSSSPERRSPGSPVCRADKAKSQQVRTSSTIRRTSSLDTITGPYLTGQWPR  
DPHVHYPSCKMDKATQTPSCWAEEGAELRSHQRSASWGSADQLKEQIAKLRQQLQRSKQSSRHSKEKDRQSPLHG  
NHITISHTQATGSRVPMPLSNISVPKSSVSRVPCNVEGISPELEKVF IKENNGKEEVSKPLDIPDGRRAPLPAH  
YRSSSTRSIDTQTPSVQERSSSCSSHSPCVSPFCPPESQDGSPCSTEDLLYDRDKDSGSSSPLPKYASSPKPNNS  
YMFKREPPEGCEVRVKVFEEMASRQPI SAPLFSCPDKNKVNFIPTGSAFCPVKLLGPLLPASDLMLKNPNSGQSS  
ALATLTVEQLSSRVSFTSLSDDTSTAGSMEASVQQPSQQQQLLQELQGEDHISAQNYVII

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**FIGURE 1297**

GAGTAGCTCACCGTTACCCAAGTATGCTTCATCTCCCAAACCAAAACAACAGCTACATGTTCAAACGGGAGCCCC  
AGAGGGATGTGAGCGAGTGAAGGTCTTTGAGGAAATGGCGTCTCGTCAGCCTATCTCGGCCCTCTCTTTTCATG  
TCCTGACAAAAACAAGGTAAATTTTCATCCCAACCGGATCAGCTTTCTGTCTGTAAAACCTTCTAGGCCCCCTCTT  
ACCTGCTTCTGACCTTATGCTCAAGAACTCTCCTAACTCTGGCCAGAGCTCAGCTTTGGCAACTCTGACCGTTGA  
GCAGCTCTCATCCCGGGTTTCCTTTACGTCTCTTTCTGATGACACCAGCACAGCGGGCTCCATGGAGGCCTCTGT  
CCAGCAGCCATCCCAGCAGCAGCAGCTCCTGCAGGAACTGCAGGGTGAGGACCACATCTCTGCTCAGAACTATGT  
GATCATCTAAAAAAGGGGGAGCTGGCCTCCACCCTATGTTCCATGGATTTCGGAACAAGATTCAGACATCTGCAT  
GAGTGACAAACTTTCTGAACACCACCACCACCAATAATACTTATCAGCATCATAAAGTATCTCTTAAACACTGAT  
CTTGGCAGGGACGGAACCTCCTATTCAGCAGTTTTTGTGGAAAGCAGTAATGCTTGCAAAACGTGTGTGTCATTCA  
GCATTTTAAAGTGGAGACTATGCATTTTCATAGTATATTTGACAGATTAGTACTGTGTCCTGTGTTTTGTTCAGAT  
TCTTCAGTATAAATAAGCTCTATATCAAAAAGTTGCCTGTCTAAATAGAAAATGTCTTGCTGTGTTTTGTCTCTAT  
GGAAAATACTGTAATTCAGGATTATGTTTACAATTGATCCAGGTGTTTGTCTTAACCTCTGTAATACATACAAT  
GCAAAAAAAAAAAAAAAAAA

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**FIGURE 1298**

CGGTGCTCGAGGCGGAGGGGAGGAGCGGGGAAGGCGAAAGGAGGGGTTCCGAGGAGAGGGTTCGATCTCCGTAC  
GCACCAGGTGGAGAGCGCGCCTGGGGAAGGAGGCGTGTGAGTAGCGGGAGGGAAGTTGTAGTACGGGTGGGG  
AGAACCACACTAAAGGGAGATGGGGGTGAGCAGTTAAGGAACCGCGAGAGCGCCAGGTAGAGAGCTGCCCTTAAT  
GGGGGAACCTGGAGAAGAGTGTGAGCGTAGTGGGGAAGAAGGGAGAAGACAAATAGTTTCGGGAATGTGTCTCCG  
AGGGCGCGAGCGGGCGCTAGGACCCGGCGTCGAAAAGATGAGGCTTTGGGGCTGTGCGGGCGCGCTCCCGTTG  
GTGACGCGGGGGTGGCGGAGGTCTCCGGCCGGGACGAAGCCCCGAGGGAGTGGATACTCGACAGCCTTCGGCCT  
CCGCTCGCTTCTCCCTGCGCGCTTTCCTGCTCCCTTTCCGGCTACAGCCCTGGGGTTCGAGCTCTGGTCTGAAGCG  
CATTCCGCCTCTCCTTTGGCCCTGCGGCTTCCTTTGCAACCCGCCGCCACCCTTGCTCTCCGTGGTTTACCCCT  
GGGCTCTGAGGCCTGGTGGTAGCGGCCACTGCCGCGGATTGGCTGTTGCGGACCCGGGGCGGGGCAGGTGGGAGA  
GGCTCGTTCTCCGCGGGTTTCGTTGTGTTTCGCGCC**ATGT**CGTTTGTGAGAGCGGGTGGCGGTTCGGCTCTGCGG  
CGCCGCGGTCCCGGCACCCGGGCCCTGTGGCTCGGCCATCGTATTCCTCCTTTACTCAGGGGACAGCTGGGGT  
GAAGGCGAAGTCGACGAGGAGGAGGGATGCGACCAAGTGGCCCCGCGACCTGCGGGCGGAGTTCTCGGCTGGGGCG  
TGGTCAGAGCCCAGAAAGCGCTCGGTGCTCCCGCCGGACGGGAACGGGTTCGCCGTTCTGCCCGATAAGCGCAAT  
GGTATCTTTCCCGCGGCCGCGGGCAGCAGAGCCCAGCCTCGGCGGTGGCCGGTCCAGGTCTCTCTATTCTCTGC  
TCGCTGCTCTTCGCCATTCTTCTCGCCTTCCTCCTCGCCATCGCCTACTTGATCGTTAAAGAGTTGCATGCTGAG  
AATTTGAAAAATGAAGATGATGTAGACACTGGACTATTAGGATTCTGGACTCTACTTATAATATCCCTAACTGCT  
GGATTCTCCTGTTGCAGCTTTTCTTGGACAGTGACTTACTTTGATTCTTTTGAACCAGGAATGTTTCTCCTACT  
CCTCTTTCACCTGCCAGGTTCAAGAACTGACTGGACATTCTTCCACATGGGCTATAGCGTGGCGATTTTGAAT  
GGCATCGTAGCTGCTCTTACTGTAGCATGGTGCCTCATG**TAA**ACCCACACTGGAGCGATATTGTTGGCAAAACTT  
AATCATGATTGTTTTGTAATAACAAGAAGGAGCATCACTGTCTACTCAGAAGACTGAGAAACCTGCTGTTTCAATTA  
TGTAAGTTCAGATATTTATCACAATCATCTCATTATGGAAGACCTTTTAAAGCATTGTTTTAGAATGTCTGAGTA  
TTAAGATACAGATTAATTGGGAATATCTGAGTATTAAGTACTTTCTTCAGAGTATAAGATGTTTACCTCATCTTT  
TTACTTTTGTGTGTGTAGTTCTTTCAAGTTGTAGGAAACATTTTAAATGGAATTTAAACTCAAAAACCTGAATACA  
GGACAATGCTTGCCTTTTCATGTATGTACTACATTTTTTGCTAAGAAATACTGATATTTCTGTTTAGTTGAGCTA  
GAAATACTTCTTATTTATACATTTTAGGAAAGCAAATAATGCCTACTACTCCGACTTTTATAGAAGCTACTTTTAA  
ATCAGAATATTTAATTTTTGATATTCATATAATTAATAGAAGTTGCATTTATATTTTTTATGGGGCATAGTTCCT  
TATGTGTTTTTTTAAATGTATTTTCATACTACATACTGAATTTGTATGTTTTTAAATGTTTACATCTAGACAAC  
GTAAACATTATTTTTTTAGCTAGTGCAAACCTAGTACCTGCCATTTTTTACTAATTTTTTGTCTTTAAAAAAGCAA  
AAAAGCACATTGACCTAAGTTGAAAATTAAGTAAGTTTATTTTTAACAAAAATGCCTGAAAAAAGCTAAATTAT  
TTAAGTCATTAAGATATTGAGAAAAATTTGAAATTTTACTATCTCTGTTTCCACAATTCCAAATATTTATCTT  
GGTGATATATTGTTACTTTAACAGAACTTGCAATATTTTGTTTTTAATAAATATAAACATGAAATTTTTGTATG  
TGAGAAATGATTGAAGTAGTTTGTCTTAATCTCAAAAATTTAGTTACCAAAGTAGAAAAGGTATTTTGATACTAG  
ATATTAAAACTACATATAGTTAATATAATTTTATAATTTTTGTAATTAAATGTGCTTCTGTAATTGTGATATT  
TGTTTTCTAAGTAATTAAGCCTTAATTTTTCCCTATGTTACTAAAGACTTTTAAATGTTTAGAAAGTTACCTCAG  
TTTTAGAAAGATGGACTACTTACAAAGCTGTTTTCCCTGGCCATAGGAAAACCTTACAATAAGAAACCATTAAGTA  
GTCAAACCTGCTTATTCAGGCTAAGTGGGAAATGAATTTGTGCAGTGTGTTCCCTTAATTATCTACTGAATGTTGT  
TACCGACTAAACAAGGTTTCTAAAAGTCT

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**FIGURE 1299**

MSFAESGWRSALRRRGPGTPGPVARPSYSSFTQGDSWGEDEVDEEEGCDQVARDLRAEFSAGAWSEPRKRSVLPP  
DGNGSPVLPDKRNGIFPAAAGSRAQPRRWPVQVLSILCSLLFAILLAFLLAIAYLIVKELHAENLKNEDDVD TGL  
LGFWTLLIISLTAGFSCCSFSWTVTYFDSFEPGMFPPTPLSPARFKKLTGHSFHMGYSVAILNGIVAALTVAWCL  
M

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**FIGURE 1300**

AGTAACATGACTAAAAAGAAGCGGGAGAATCTGGGCGTCGCTCTAGAGATCGATGGGCTAGAGGAGAAGCTGTCC  
CAGTGTCTGGAGAGACCTGGAGGCCGTGAACTCCAGACTCCACAGCCGGGAGCTGAGCCCAGAGGCCAGGAGGTCC  
CTGGAGAAGGAGAAAAACAGCCTAATGAACAAAGCCTCCAACCTACGAGAAGGAAGTGAAGTTTCTTCGGCAAGAG  
AACCGGAAGAACATGCTGCTCTCTGTGGCCATCTTTATCCTCCTGACGCTCGTCTATGCCTACTGGACCATGTGA  
GCCTGGCACTTCCCCACAACCAGCACAGGCTTCCACTTGGCCCCCTTGATCAGGATCAAGCAGGCACTTCAAGCCT  
CAATAGGACCAAGGTGCTGGGGTGTTCCTCCCAACCTAGTGTTCAAGCATGGCTTCCTGGCGGCCCAAGGCCTT  
GCCTCCCTGGCCTGCTGGGGGGTTCGGGTCTCCAGAAGGACATGGTGCTGGTCCCTCCCTTAGCCCAAGGGAGA  
GGCAATAAAGAACACAAAGCTGAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 1301**

GGGAGTTGCAGGGGAGAGATGGAAAGGCTAGCAGCTGAAAAAAATAGGTAAATAACCAGTGTATTCCATGTAG  
CTGTTAATCTAGTTTGTGTGCTTCCATCAGCTGCAGGAGTATTCCATAGTATGCATCCACCATAGTAAATTTATCC  
ATTACCTGTTGCTCAAATTTCTGGCTACCTGGAGAAATTAAACCCCTGAAGCTAGGGTTCTGAGTACAAGA  
TCAGTTCCACCAATTAGATTTCTTCATTTGAGATTTGGGAGGTAAAGGCTGTCTTTCTGCTGTTTGGGTTGTTC  
TGCTGGAAAGCAAGTTTATGTACATATGGGGCTTTCTGCAACAGCTTTCCAGCTTTGAAAACCTGCNNNNNNNN  
NN  
AAAAATAATCTACTCTGTAATAGTATAAGTTTACTACAATAAACTGTGGTTAAGAAGAAAAATTGGCCGGGCAT  
GGTGGCTCATGCCTGCCTGTAANN  
NCCAGAGTAATGGTTTCTTGACTTTCTGTAGCCCTTGTTCCCTTAGTCTGCTGTGATATTTATGTTGACCTTTATC  
ATTTTCTATTCTGAACCCCTCTTAGCATTTAATGTGAAATCTAAGAAATTAGAAGTAGAATGGCTTTTATTGTTT  
TGACACCTTTGAAATTATTATTAATAATTTTTCCAGAGCAAAAAGCAACACGCTCAATAAGACTAAACAAAAC  
AAAAATAAATGTACATCATTTAATGTCCAGTGGCTCTATTCTACCTGTAAGAAAATGATACAAAACCACTAA  
GATATTTTGAAGCCTGACAAATCAGCTTCATGGAAAAAGGTAAAAAATGCATTTTTCAACCGAAAGGGCAGATCC  
AATAGAAGACCCGCTCCTTAAATAAACATAAAATGTAAAAAGTTGGAAAATTAAGAGTAATGTTCCATCTGGAAA  
CTGAACTTTTGTCTTGAACCTGTGTTGGCACCAAGCCTCATACACAGTGAGCTCAATAACTGTTGGGACAAAGG  
AAGGAAGGACAAAATGTGTAACCTCCCAGCATCTGGGAGATGCTGTCTCTTGCCCTCACTGAGTGTTCCTTTTCTT  
TGCTCTCATGTCAATCCCTGAGAACAATGAATCTGGGACAGGCTAAACATCATGATGAAGTTTCTTAAACAGAC  
TTTCTTAGTGGAATCCATTTAGATCTGGGTGTGCTCTATGGGGAGTGCTGACGTCAAAGAGCAAAATGCTATAAA  
GGGGCCCTTTTAAATGAACATTTTCTCATTGAGCAAGCTGGGATTCTCTAATGTAGAAATCAAGCCATCTTTA  
TAATTTCACTTCAGATGTTTATGTTTTTGTTTTTTTTTGTCTCCAATGATGGTAAAAATAAAACTACGCATTAC  
TTAAAGGAGTTTCCCTCACATGTAAACACTGTTAGGAAGTCTGGATTAAGTTGAAAGTCTGTTTTAACTTTTTT  
TCTCTCATATACCAAACACTCTGTATTTCTCTTAAAGAAGCCCTTTAAGAGAAAGCCCTAATTTTATATCTGACA  
GTAAAGTTTGCTGCAAGTGTATGAGTTCAAAACACATCCCTTGTTTTCTGTCCCTAGGGGAAAAGTCATGTAGTTT  
TAGCTTGGCTCCAGTGTTAATATTATATTAGTAGCAGCCTTAGAAGAGTGGTCTAAGACTTGAACCTGGAGCAA  
TTTTATAGCACAGAATCCTACGAAGATAGGACTGTGAACATTTGTTTTCTTTTTCTGTGTGTGTCAAACTAAGTGG  
TTTTTGCTTTACCAATAAAATGTCCTCGGCAGAGTAAATTTTAAACGTGAAAATTATAGATCTTGATATTGAATC  
CATCAGTGATTCAAGAGATACACCTATTTGCCTAAAACAACCTAAGATGTATTGGTTATGGAATCATGTGTTGGA  
TAGGTTCTTAAGACCTGTTTCCCTCAAATCTTGACACAGTTTTCAAGGGTGGCTTATTGACTTGCACGGTTGGGCA  
GATAATCCAGATTTACCTAAGATTGGGTAAAAAAGTCATCTGTGACTTTGCTGGCAGGGCATTGCTAAGTGGAG  
TACAGGATCTAAAAGGGTTTTCTTAGAAAGGGCAATATTGTCCAATGAAGTAAGCAGAAGGACTCTGGGTTAGAA  
GCATCTGCACAAAACCTGGTGAGACCTACTCTCCACTGCTCTGCAGCTGGATGGCTGATGGCAGGCTGAGCAGTG  
GGGAAGCAGGTTTTAACAACAGGGAGTCCTTCCAGGTCACTGTATATTGAGAAGAAACATAAAACTATTGTCTGT  
TACATTCCGAGGTCAGCCTTCTTCTAACGTTTTATAATATGCAATGCCAGCTTCTGGAAAGCAAGTATCATCA  
TGTACCAAATGCTTTATACACCATCACATTCATGAATTTTTTAGCATGGTCAGAACTTGTGTAAATATGTCTCTT  
AGATGATTTTGGGAGATGTGATTTATTTTCATATTTTCAAATGCATTTTCATTTCAAATAAAGTTATCTATTG  
AGACAACCGAAAAAAGCGG

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**FIGURE 1302**

MILGRCDLFFIFSKCISFQIKLSIETTEKKKKS

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**FIGURE 1303A**

AAAATACTTTGCCAAATGAAATAGACTAGTCAATACATCTGATGTCCATAATTATTGGTAACTCAGTTACCTTCT  
AACTAATAGGCTGGTTCAGGAGACTCTCCAGTTTATAAATGGTTCTCTTGGGAGCCTTTGGAAGCTGTATTAAA  
TCTTTCAGTCTTTTATTTCTAATTTTTTCTCTTAATCTAAATAGAGGCCAGTTATCTATTTTATCAGCTTTTATT  
CTTGAAGATTCTCAGATTATGTTTTAGTCCCTTTTAGCTTTAATAGTCCCTTGAAAAATACATTACTGTATAATGT  
GGCAATTCTGTAAACAGAGACTTATTACTTGAATGAATAATCCTAAAATTTTAATATTTTAGCTGAAGTTTGAGAT  
TTGTGGAATGAACAAAAGAATTAGAACTTTCATATGTTACTTTGTTTCAGTCATCTGCAAAGTATGAAGCTGTA  
ATTCTGAAATACACATCCAAGTGAATGAGAATTAATAATTTTCTAAATATTAATACTAACTGGGAAAAAAAACCT  
AGTGTGAAGTTTACAGTTAGAAGAAACAGACCCAAAGTTGCCAGAAGGTAATAAATAAATGTAGTTTTCACTGTA  
AGTAAGTTATTGACGTAAGATGCTTTATTTGTAATATATTTAGATTTTGAAAGTTATTGAGAGATGAATGTATAA  
AAGCTAAATTTTCTTTTCTGAAGCAGTGAAACAAAATTGGGGTAACAAGGAAGCTCTGTTGTGGCAAACATGTCT  
ATGAGGAATATTAATACTAAGCATACTCCACAGGCTTTAAACTCAAACCATGAACATTTAAATTAAGTTGTTCC  
TTATTTTGCTATACCCATTTTATCTTTCAITGTCGTTTTTGCTTGACAGTATGGTGACAGAGTATTTTTATTT  
GGAAAGTCCTCAGCAAGATGAATTAGCCAAAAGCAATAATGGTTTCAGATTAAACAATAAAGTGGAATTGATTCAA  
TCCCAGGCTCAACTAAGAACAGTCGCTCTCTGGATGTTTTCATTTTAGACGATAGATAAGTTGAGATGTTGTAATA  
TTTATGGGGGGTTAAGCCTGTGTGCTAGTTATGGGATGAAGACTTGTAAGTACCAGTACCATCAGTGGTCATACCTTT  
TTTTAACTTTTTACTAACTAATACAGTTAGACATTTCCACTCTATCGTGATTATATTTTTATGATGGGAAAATA  
AAAACACTTCCATGTTTTTATAAATAGTCTCTGCAAAGATTTTCAGATGTTATTGGTATCTCGGTTTGGCAGTATC  
TGAAAAATTGAGATTGCTTTGAAATGTTGTGCTACTTTTACTTAAGTAAACCCCACTGTGCAAGACCCAGGC  
CGGCTTCAGCTAATACCAAGGTTTCTGTGTGCATAATAGTTTACAGAGAACTTAAGAGTAAGGACTGCGGATTAA  
AAACAAAACCTTTTTTAACTTTAAAATTTTTAGTTTTTGTTCAAAGTACCTGGTTTATAAAGTCAAATTCCTTTA  
TTAGTTCCTTTCTCGTTTTAAATTGACTGATGTTGCTGATGAAGCTTAAAGTCCCAGGCACGGTTGTGGCGATATA  
CTGATAAAATTGGTGCCTAGTGGTGGGAGGAGCTCCAGTGTGAGGACTTTTATTAAGGCCCTTGTTTTCCCAA  
ATGCCAATCTAGCCACATTTAGATTTTATTATTCAATAAAACAGATGAAAAATCATCCCATAAATGAATGTTGAG  
GTTACCAAAGTACATCACCTGCTGAGGAAGGATAAATCTTCCTGCTTTAAGGGAGCCCTGTCATCTCTCTCTTA  
ATGCACGTTTTCCCTTGGTATTAGTGGAAGCTGTGTTCAAGATGGGAAGCCTTTCCTGCAGTTCTTAGAAACACCT  
GCTTTCTAAGGAGAGCCTTTTTCTAGGATTAGCTTATGTGTGTTTTCTCTAGGCGATTTTTTATTTTACAGTTACCAA  
TTTAATTTTCAAGTTGACAGATGCTGTGTAAAGTCTCTCATAATGAGAGTAGTCCATTAAATTGTTGAAAGTTGC  
ACTGCTTTTTCATCTTTTCAAGTACCTGAAATGAGTGACATCAGGTATTTGGAAGGAGTAAGATCATAACTGTATT  
CATTTTCTTCTTGTACAAAGTGATGACTTCTAATGCTTATATCTCAAGGTATTTTTTAAAAAAGCAACGGTCCC  
TAATAGAGTAAAAATTGGTTTTGGTCCAAGTTCCCAATAATGTATTAAATGTTTCTGTTGTTTACTGGTGCCCTCC  
CGTTGCATCAGGTAGAGATTGCCTGCCTCTTTGTAGGGCAGCCTTGTTGGCACCTTATGTCCAACCTTGGAGGATAG  
TATATGGCTTCTTTGTGCCTCTACTATCTTTTCAAAGCCATTTTATAAAAAATCCTAGGTAGCCTATTTTAATAT  
TTAAATATATATATTTGTGAAAGAACTTTTAGAACAGACCTTTTCTTTTACTTTAAATTCCTGTATTTCCATT  
TTTAAGAGTAAATTTAATCTCCAGGATTTAGAAGTGTCTTTCCAGAGAAGCATAATGAGAAAGTCAGACTGAGGT  
AATAAGACCAGAAATTAAGTGATAGAAGAACTGTTGTTTGGTTAAAGGACACAGATTTGAAGGAAAAAATTTGA  
TGTAACAATTTTTTAAATAAAATTTGTTTTTCTGTAATGTCAATTTGCTGCTACAGTAGCTCAATATTTTACA  
GGGCTAACATAAAGCTGGCTCCATTTAAAAACTGGAGTACTTCCTAGTGCCAGCCAGCTAGGCGGAAACTGTACA  
CCATGGTCTTCCAGATGGGTGACTGATGGCTTTGGGTAGCTGATGCATGCTTTAATATTTGCCTATAGCCCGGA  
GCAAGGAAGTCGGGGCGGGGGGACTTTTTTACCCTGCCAGTTATAGCATTGTGATTCTTTCTGGGCACTGGCATT  
TTGTGAAACTCTCAAGGGAAGGTGATGCAGGGGAGAAAATGTGAATTAATTAACATAGATGGGIGTTTTTATGTC  
TTCTACCCCTTTCTAGAAATTAGTACAACCTTTAACTGTGCCAGTCCCCAGTTCACCAGCTTTGTATCCAGTCGT  
CATCTCATTCAAGTATGGCTTTACTTGGTGACACTGGCCATAGCTAAGTTAACTTGGCATGTTTGACTTTTGACA  
ATAACAAAAATGGTTTTGGATTTTGTTTTATTTCCAAAAATGTATACAATATCAGAACTTCACATTTTATATAC  
TAGTATCTGGCTATTAGTATTTTACAGGAACCATAGTTCTTGGTGACTACATATATATATATATTTTTTGTGACCT  
TTTTTGTAACATAAGTGCCGTTTCAACGTTACAATCATTTTTAGGGTTATTGTAATCAATGTGAATATCATGTTT  
TTTCAAATCTGTTCTGAGCCTATAGTGTGCTTTGTGAACATGTGTATTGTATATATTCTGTATAGTTATATTG  
TACTGAAATTAGCTTGTTGATATAAGGAAAATATGTATTGAGTACCTTTTGCTAGCCTGATTGTTTAACTCTT  
TTAAAAAAGGTTTAACTTTTTTAAAAAAAATCTTTAACTGGCCTTTATTACATGGTCACACATAAAGTTG

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**FIGURE 1303B**

CAGTTAGGAAAGGGATGGGCAGGGAAAACTAGTTTTGAGTGTCTTTAGATAGAAACATGAGACTAAGGTTTGAT  
TTTGTTTTCGTTTTCTCATTAAAATATCTTATGCTTTATGGAATAAAAAAAAAACAAAGGG

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**FIGURE 1304**

MRLRFDFVFVFSKYLMLYGIKKKQ

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**FIGURE 1305**

TTCCGGCCTTGTAATCGCCGAGGGCACGTGCATGCCCCCTGGTTAAGAGTTGCAGGTAGCGGTAGCG**ATGG**ACAC  
TCTGGATCGAGTAGTAAAGCCCAAACGAAAAGAGCCAAGAGATTCCCTTGAGAAGAGAGAACCGAAACTCAATGA  
AAATATTAAAAATGCCATGCTGATTAAAGGGGAAATGCAAATGCAACAGTGACAAAAGTACTTAAAGATGTGTA  
TGCACTGAAAAAACCATACGGTGTACTATATAAAAAGAAAAATATTACAAGACCTTTTGAGGATCAGACATCACT  
GGAATTCTTTTCAAAGAAGTCAGATTGTTCTTTATTCATGTTTGGCTCCCATAATAAGAAGCGGCCAAATAATCT  
AGTAATAGGTCGTATGTATGACTACCATGTGCTGGATATGATTGAATTAGGTATTGAGAATTTTGTCTCTCTAAA  
AGACATTAAGAACAGTAAATGTCCTGAGGGAACAAACCCATGCTGATATTTGCTGGCGATGATTTGATGTAAC  
AGAAGATTATAGAAGACTAAAAAGTCTTCTTATTGATTTCTTCAGAGGCCCCACAGTATCAAATATCCGCCTGGC  
TGGATTAGAGTATGTTCTGCACTTCACTGCACTGAATGGGAAGATTTACTTTCGAAGCTATAAGTTGCTGTTGAA  
GAAATCTGGTTGCAGAACACCACGGATTGAATTGGAAGAGATGGGACCCTCATTGGATCTGGTTCTGAGGAGGAC  
ACACCTGGCATCGGATGACCTTTATAAATTATCTATGAAAATGCCAAAAGCTCTCAAGCCAAAAAAAAAAAAAAAAA  
A

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**FIGURE 1306**

MDTLDRVVKPKTKRAKRFLEKREPKNENIKNAMLIKGGNANATVTKVLKDVYALKKPYGVLYKKKNITRPFEDQ  
TSLEFFSKKSDCSLFMFGSHNKKRPNNLVIGRMYDYHVLDMIELGIENFVSLKDIKNSKCPEGTKPMLIFAGDDF  
DVTEDYRRLKSLIDFFRGPTVSNIRLAGLEYVLHFTALNGKIYFRSYKLLKKSGCRTPRIELEEMGPSLDLVL  
RRTHLASDDLYKLSMKMPKALKPKKKKK

## FIGURE 1307A

CAACAACAAAAGGACTTGGACTGGCCGGCCTGGGCGCACGACCCGAGGGCTGGAGTCGGCCCCGCGCCTGCCGTC  
TGGGTACCTGAACGAGGTGCAGCGCAGCCGGCCCCACCGCAGCTACCTCAGCAGTCCCGCCCCGCGCGTCCTT  
CCCCGCGGAGCCGGCCTCGCTCCCTTCCCCGCGCACCCCGCACGGCCCGGGCCACGTACAATGACTCTTCTTGC  
TTTTACCTAAGTTGAATAAGCACCTGTGCACTTTAATCTCCTGTCCGTACCATTGGGCCAACTAAAGACAAGG  
TTTTGAAATCTCAGCTATAAAAGACATCCAGCCAACTCTCAGTCTTGCCTTAACAATGTTCCAGAGGCTGAATA  
AAATGTTTGTGGGTGAAGTCAGTTCTTCTCCAACCAAGAACCAGAATTCAATGAGAAAGAAGATGATGAATGGA  
TTCTTGTGACTTCATAGATACTTGCAGTGGTTTCTCAGCAGAAGAAGAAGAAGAGGAGGACATCAGTGAAG  
AGTCACCTACTGAGCACCCCTTCAGTCTTTTCTGTTTACCGGCATCTCTTGAGTGCTTGGCTGATACAAGTGATT  
CCTGCTTTCTCCAGTTTGAGTCATGTCCAATGGAGGAGAGCTGGTTTATCACCCACCCCATGTTTTACTGCAG  
GTGGATTAAACCACTATCAAGGTGGAACAAGTCCTATGGAAAACCTTCTCATTGAACATCCCAGCATGTCTGTCT  
ATGCTGTGCATAACTCCTGCCCTGGTCTCAGTGAGGCCACCCGTGGGACTGATGAATTACATAGCCCAAGTAGTC  
CCAGAGTGGAAGCTCAAAATGAAATGGGGCAGCATATTCAATTGTTATGTTGCAGCTCTTGCTGCTCATACAACTT  
TTCTGGAACAACCCAAGAGCTTTTCGCCCTTCCCAGTGGAATAAAGAACACAGTGAAAGACAGCCTCTTAACAGAA  
ATAGCCTTCGTCGCCAAAATCTTACCAGGGATTGCCACCCCTCGGCAAGTCAAGCACAAATGGCTGGGTTGTTTCATC  
AGCCCTGCCCCGCTCAGTACAATTACTAATAGTTTCAAGTTTGTGTTGGTTGGTTTCTCTTGGTTTGTGCTTACAT  
GTATGGATGTGTGTATATGTACAGTGAAAATGTTGTCTCTTTACAACCAATTGATAACCAATCACATAGTTTTAT  
CAGTGTATTTAGACACTATCTTGAATATCAGATTTATATGCTGTGTATCACATAATGCCTTGCTTTAACATTTA  
CTTTTTTGTACACTTTTTTCAGATTATTTCTGGAACATATCAATATAATTACAGTGTTTGGGGGTGTCTTTAAA  
TATATTAGGTTATACATTAGTCAGCATTTTAAAGACATTTCTTCCCAAGTACGAGAATAGGCATCTTTCATTTTC  
ATTTTATTTTGTATTACTTAATCTTTTAAAGCAAGCAAAAATTTATTCTCAGGGTCAGCTGTACACTTTATTGACC  
AGTACTTGATAATCTCTCTGTATATGATGAATACATTTTACACACTAACATTAGCATTAAACAGGTGATAGTTGC  
CATGGATATAATGGAATTATGGCTGGACTTTCTTTTGAAGAAAACCTTGATGTATTCTGTGTGTATGGTTTTTCC  
CCAGATTAGTCATACAGTTCATTTGGAATTCAGGTACATTAAGCTTTAGTGAAGAGTGCATGCAGTAATTCCAAT  
GTGACTGCATGACGTGGTACAGACATTACAGGTGTTGTAGACAGAGGCACTTGTCTCGTGCAGAGGGATTAAATT  
AGACCTGTGAGATTATATTTGGAATAATTCATGTCTGTAACTAACCCATTAGTGCAGTATTTAATTTGTTACTAT  
TCCTTCCCCGCAATTCTGTCCACTCCTCACCTCGCATCAGCTATAAATTTGGAAGTACTTGTCCAGGCACTCAAG  
TGACTTCATATTTCTCTCTGCCCATGGGAAAAGAGATAGGCTTTATATTTCCACAGAGTGAAAATCCTCTGTCA  
TGGAGCCTGTCTGCCAAGTGGCAAGAGTGTGGGGACTGTCTGGTGATGATGTCTTTCATGGCATCTGAGTGAAG  
AGTGACAGGTTGGCTCAACTTTTTTCTTTTTTTTTTTTAAATTGCCTTGATTGTAAGTATTCTTCCCTGCAGTC  
CAAGTGACTTTTCATTTTTTGTTTTAACTTCAGGCAAAATCTTTAACCACTCTGGCCTCTGTTTCCCCACCAAC  
GGGGAGCAGTGACATTTACCTCCCTCACAGAGTCACTGTGAGGATTCTATACTGATTTGAAGTGGAGCTGTTTCAG  
AACTGAACCTGTAGGAAATTTCAAGGGCCTTTCTACTGAATCTGGTGATGGGTGGGGCCGTGGCACTTTCTCT  
GCCACAGCTGTTCTTACAGTGTTGGTGCTAATGAGGCCAGGGTGCAGGGTTCGATTACACGTAGGCCAGTTAA  
CTTAGAGAAAATCTATTTCCCTTACCTCTAGCCAGTCACTTCCTTTTCCGAGTTGTGATGGGTTTTGCTGAGCC  
ATCCACTCTGACTGATTTCCCTCTGAAGTAAACATATTTACAATCCAAAGCAATTCTACTGACAGAAGTGTTGCCT  
TCATAATCAAACAGCTTGTTTTTCCATCTCCTCTGCAACCCTAATTAAATGAGTACAGGTCTACAAAATGTTTTC  
AAGGAGAAAAGCAGCATATCCTTAAGTGAAGTATTATTTTTCAATAACCCTGTAGTGGCTTGATGCAGGGAAC  
CCTGGGGGACTTTCAGCGAAGAGCTGTGCTCTTTTCTGACTAGATTAGAGCGTTTGGAGTGGAAGACGTCAAATG  
TGAGTGAGATGGAGTTTTACATTGTTCTTCTACTGGCTGTGATGAAGTGCCAGAATGTCTCTTTAGAACAAGA  
GTTAGATTCCCCCTTTCTCCTTATTGCCCTTCCGTTTTGACTTCCCCCTTTATTTATTTGTTGTCTAATTAGGGG  
CCAAGTCTGTAAAGTTTTGTCAAAGTGAGTTAGAAGTTGTTTTCTCTTACTATTTGTGTTTACCAGAGTTGGGAG  
ATAAGATAGTTTCCATGAAGGTGTGTATGTTTTATACGATGTTTGTATAGGGCCATGCATTGGTAACTTGAAAA  
TAGACCAGCTTAATGTCTTCAGGATGTAAACTCTGAATACACGGCGTCTCTTTTTCATACATTGCATGTAAGTT  
GTTAGTACCTCACAAGCTACAGAAGTTCAGCCATGAGATTTTGTGTTGGCAACATGAACAGATTTGTGTATAACTG  
CAATGGCCTTTTTTCCAGATTTCCCTTATTGACTTTTTGTTTGCCTTACCTGGGGCTAGTTTTTTATGCTTTGTA  
CCTAGAAAACAAAAAATTACATTCGTTGGGCTTTTTTCAAGGTGAGGATTACCACACCACCTGGAATATCATAC  
TGTGGTTTCTGCCTAAAATTGGCACATGTAAGTATTGAAGAAAATGGTTATATAATTACAGTTGAAACTCTTGGTT  
ATTAGATGTTAGGCATCTCCTGTATGTAAGACACAAGGCCAACCAACACAGAACGATGTTGACCTGTTAAGTA



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**FIGURE 1307B**

TTCTCTGAAACATGGCCAAAATGCATTTTATGAGCTTTTTTTTTTGCTATTGTAAATATTAGTGGTTTACAATGC  
GCTTTAGACATATTTCTTTAAAATGCAAGCAGTGAGAAATAAGACCTCTCTGAATTAGTAGCTCTAAACTGTTAA  
CATAGAATGTTACTTGGAAAAAGTCTGGAATATGTGGTGACACAAGCAGTGCTTCGTGAATGAGTTTCTTAGCT  
TTTATAGTGCGCCATGTTTCTCAAAGTTTGTTTTGTTGACAAAACATTTTATAATATATATCTTATGTTTATTT  
TTTTTCTCAACTAATTGTGTACTGCACTGTAAGGTGAAAATTAGCCATCCATTATTTATCTTCTGTGGCAATGCA  
TTTATATGGTTGATTGGGTGGGGAATTTTTTGCAGAAAGATGCAAAGTGATTGGGTTTTCGACTTCCTATCGCAG  
GGAGCTTTTAAGAAATATTAATTTCTTATACATTTTTTCCAATCCCCATGCAAAGTCTTCTGTTTACATACCTTC  
TCTGTTGTATCAGTACTTTGAGTGAGAAGACAGTTTATTTAAACTTGAGCAGGCTGTTTACAGATTGTTTCTGCT  
TCTGAAATCTGTATAGTACACTGGTTTGTAAATCATTATGTCTTCATTGAAATCCTTGCTACTTCTCTTCTCCTC  
AATGAAATACATTATATATTATCTTTATGTACTCTTAAGAAAAACGAGCAAGGAAGAGTATCTTCATTATTCTCA  
TTTTTCTCTGAGTTGGAAACAAAACATGAAGGACTCCAAGTAGAAGACAGATATTTACATTTAAATAGATTAGTG  
GGAAACCTTTAAGAGTTTCCACATATTAGTTTTTCATTTTTTGAGTCAAGAGACTGCTCCTTGTACTGGGAGACAC  
TAGTAGTATATGTTTGTAAATGTTACTTTAAAATTATCTTTTTATTTTATAAGGCCATAAATACTGGTTAAACTC  
TGTTAAAAGTGGGCCTTCTATCTTGATGGTTTTCACTGCCATCAGCCATGCTGATATATTAGAAATGGCATCCCT  
ATCTACTTACTTTAATGCTTAAAATTATACATAAAATGCTTTATTTAGAAAACCTACATGATACAGTGGTGTGAG  
CCTTGCCATGTATCAGTTTCACTTGAAATTTGAGACCAATTAAATTTCAACTGTTTAGGGTGGAGAAAGAGGTAC  
TGGAAAACATGCAGATGAGGATATCTTTTATGTGCAACAGTATCCTTGCATGGGAGGAGAGTTACTCTTGAAAG  
GCAGGCAGCTTAAGTGGACAATGTTTTGTATATAGTTGAGAATTTTACGACACTTTTAAAAATTGTGTAATTGTT  
AAATGTCCAGTTTTGCTCTGTTTTGCCTGAAGTTTTAGTATTTGTTTTCTAGGTGGACCTCTGAAAACCAAACCA  
GTACCTGGGGAGGTTAGATGTGTGTTTTCAGGCTTGAGTGTATGAGTGGTTTTGCTTGTATTTTCTCCAGAGAT  
TTTGAACCTTTAATAATTGCGTGTGTGTTTTTTTTTTTTTAAAGTGGCTTTGTTTTTTTTTCTCAAGTAAAATTGT  
GAACATATTTCTTTATAGGGCAGGGCATGAGTTAGGGAGACTGAAGAGTATTGTAGACTGTACATGTGCCTTC  
TTAATGTGTTTCTCGACACATTTTTTTTTCAGTAACTTGAAAATTCAAAAGGGACATTTGGTTAGGTTACTGTACA  
TCAATCTATGCATAAATGGCAGCTTGTTTTCTTGAGCCACGGTCTAAATTTTGTTTTTATAGAAATTTTTTATAC  
TGATTGGTTCATAGATGGTCAGTTTTGTACACAGACTGAACAATACAGCACTTTGCCAAAAATGAGTGTAGCATT  
GTTTAAACATTGTGTGTTAACACCTGTTCTTTGTAATTGGGTTGTGGTGCATTTTGCACTACCTGGAGTTACAGT  
TTTCAATCTGTCAGTAAATAAAGTGTCTTTAACTTC

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**FIGURE 1308**

MFQRLNKMFEVGVSSSSNQEFNEKEDDEWILVDFIDTCTGFSAAAAAEEEDISEESPTHEPSVFSCLPASLEC  
LADTSDSCFLQFESCPMEESWFITPPPCFTAGGLTTIKVETSPMENLLIEHPSMSVYAVHNSCPGLSEATRGTDE  
LHSPSSPRVEAQNEMGQIHICYAALAAHTTFLEQPKSFRPSQWIKESERQPLNRNSLRRQNLTRDCHPRQVKH  
NGWVVHQPCPRQYNY

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**FIGURE 1309A**

CAACTTGGGTGAACAGCCAACTAAATGCAGTCCTGAAGAAGATGAGGAGGACGAGGAGGATGTTGATGATGAGGA  
CCATGATGAAGGATTCGGCAGTGAGCATGAACTGTCTGAAAATGAGGAGGAGGAAGAAGTGGAAGAGGATTATGA  
AGATGACAAGGATGATGATATTAGTGATACTTTCTCTGAACCAGGCTATGAAAATGATTCTGTAGAAGACCTGAA  
GGAGGTGACTTCAATATCTTCACGGAAGAGAGGTAAAAGAAGATACTTCTGGGAGTATAGTGAACAACCTTACACC  
ATCACAGCAAGAGAGGATGCTGAGACCATCTGAGTGGAACCGAGATACTTTGCCAAGTAATATGTATCAGAAAAA  
TGGCTTACATCATGGAAAATATGCAGTAAAGAAGTCACGGGAACTGATGTAGAAGACCTGACTCCAAATCCTAA  
AAAACCTCCTCCAGATAGGCAATGAACTTCGGAACTGAATAAGGTGATTAGTGACCTGACTCCAGTCAGTGAGCT  
TCCCTTAACAGCCCCGACCAAGGTCAAGGAAGGAAAAAATAAGCTGGCTTCCAGAGCTTGTCTGGTTAAAGAAGAA  
AGCCCAAGTATGAAGCTAATAAAGTGAAATTATGGGGCCTCAACACAGAATATGATAATTTATTGTTTGTAAATCAA  
CTCCATCAAGCAAGAGATTGTAAACCGGGTACAGAATCCAAGAGATGAGAGAGGACCCAACATGGGGCAGAAGCT  
TGAAATCCTCATTAAAGATACTCTCGGTCTACCAGTTGCTGGGCAAACTCAGAATTTGTTAACCAAGTGTTAGA  
GAAGACTGCAGAAGGGAATCCCACTGGAGGCCTTGAGGATTAAGGATACCAACATCAAAGGTGTAATCAGCCTC  
ATTGGACCACTGGTCAGAAATGTCTGCGTTTTGTACGTTATCCATTGTAAATTTTCATTCTGTTTTGCATGTCA  
GTTAGCATTATGTAAACATTTACAATTAGGTTACATTGTTTTAAGAACTAAGTAGCATAAGTGAAGCATGATCCA  
AAATACTTGATTATTGCATTTTCAGAGCATAAACCATGATTAAGAACTGCTACTGGCATCAGAATTGAAAATCATA  
TGTTTAAGTAAATGTTAGGTACAGATTACAAAAATCTGTTAAAGCAAAACATTTTGGAGGAGTGAAATAGTAAAA  
TGCCAAGTATTGTGGCAGATTTATGCTCTGAACCACACAAAAAAATTGAGGAAGCATTTTTTTAAACAGTCGGTT  
TAAATTGTTTTTAGAATTATTGCTTTTTGTTCTAATTTTCCACAACCATTAATCTCACTTGTATATGGCACACCC  
AGCACTTGTGCTGTGGGCCATATTAGATGTTTATTGTCTAGAGCTCAAGATGNNNNNNNNNNNNNNNNNNNNNNNN  
NN  
TGGGGAAACTCTAAACTGGTAATATTTTGTATGATGAAAACCTAATGAGAAAAACAAGATATATAGATGGAA  
AAATTATGGGGTTTAAATGTTTTTTGTTTCCAACCTCTTTTCAGATTTTTTGAATGTATATAGGACTATGTTGAA  
ATGTAGATATATGCCACAGAGTCTGTGTATTGTATAAAAAACAAAAACAAAAACAAAAAAGATGGCTCTA  
GAAAACCTCATATTTCTGGTACTTGACCGGAAGAAGACAAATACTTGACATTTATTGCGATTGTTTTATTTTTTGT  
CCAAAGACAAATGCAACTGATATGGCAAACCTGCCAGTCTAAGTAAAGTTTTGCACAGCTTACATGATACTGTATG  
AATGTATGAAAAAAAAGGAGAAAAAAAAGAAAAAAAAGGTCAGGGTTAGGGATCTTACTGAACTGTGAATTTTA  
TTTCTGTTTGGGTCCAATTATCTACAGAAGGAGCATCCATACATACAAATATTATTTTGTCTTCTCTAGTTTCG  
CTTCCATAGTAGATAAGTTGGTGGCCATTTAGATGTCTTTTATTCTGCACCTATTGTAGGAAATTTTAATATAT  
TTCATTTTAGTAAGCTATTGATAAAATAGTTTTTGACTTTGAAAAATTAATGTTTATTTAGCTTATTGTAGTAT  
ACTTCCACCAGACAACAAATAGATTATTTTTATTGTATTATGTATATATATATGTAAGAAAGAAAAAAGCT  
AAAAATATCTAATCTTTAGTTGCCACTTTTCCAATTGATGTATTATTGTGCATGTAATATTTTCAAAGATCAAC  
ACAGGCTAAAAACAAAAACAATTTATAGATTTTATATTTTGTACAGGTATTTTCAAAGCTTCTTCAAACCTT  
AACATGTGACTTATTCTCTATAGTTTCTAGAATTGAGAAACATTAACACATTTAGTTTTTAGGTGCTCTTTTTT  
GCTCATATAAAACAGCTTCATTAGTCAGTGTTTTAACTGTGTTCAAGCTTTACCTCTTGATGAGAAATTTCTTAT  
GTCAAGGCAGCATTATAAACCTTCCCCACAGATTTTCCATCCTGTCTCTCTTACTGTTTTATTCTCAAATCTT  
GTGCTTTGAACTCTGAAAACCTGGTGGCTTAAAAACTAAAAAAGAAAAAAGCATATTTAGCAAGGAAAAAATA  
CCAAAAATTTCAAGCATAGCTGCTGGAAAAATTATCTATTTCTCCATTACCCACTGTAGGATTTCTTTTTTAATT  
ATACTTTGACTATAAAGTGTCAAAGTATAATTTGTTCTTTTCTTTTACTTTGTTACCCCATTTGTAAGCTATAGC  
ATATGAAGCTATATATATAGCTTGTGAAGGTTTGATCTAGAACACCCAGTAACAAATGAACAATGTTTGCTTACCT  
GCTTCTTTGACATCTTAAAAAAGAAATCCAAGGAGGATTGTAAGGATTGCTTACCACCTTAGCTGAACTGTGAT  
GCACAAGATTTTTCTATGTGTTTGGTGGAAATGTACCTGGTTTTGTACATTACGCTAAACAGATGATAAGCTCAA  
GTCTGATGGTTTTAATAGAATGTAAGTTCATCGTTTTAAAGCTTTTCTTTTGTAGGTTGGAGAAGGCAAAACACAGG  
CTTGCAAGTTGGAAGTATATGAAGTCTTGACAGAGTGTGTCTGGTAAATTGAAAAGTGTTTCAAACCTATGGCAGT  
TTTGCAATCAGGTGAAAATCACCTCATGATATTCAGCTGATAAGGTTTATAAAATTGCCCTTTCTAGCTGCTCT  
GTTAGGAATCTGGTTTTTGTACTTTTTTCTGTCTGCAAACCGAATTTGATTTTTTGGTCTTGCAATTTCAA  
AAAAAAGAGCTTTGAATCTGTTTAGTAGATTCCATATCTTTGAGTTTCAGTGTTTTATATGTACTACTTAAGTT  
AAATAGTTAAAGCTTTTAAATAGTTGAGCTTTTTAATGTTGACACTTTATTTTGTACCTATTTATATATGTATG  
TATATCTTAGAAAAGCACTTTGTTAAAAAAAATTGCATTTTATATGATTCCTGCCATTTGCTGCTAAATCTGGG

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**FIGURE 1309B**

CTGGTCAGAAATGCTGCAGCGATACTTGATCTATATAAAAAACCTGGCAGTAAAATGTAGAGTGAAAGTTAAATCCT  
 CTTGCTGTTTTAACTTTATCATAAAGATGACATAGGCAAGCTGTGCAGCTTTACATTTTAACCAGGGGACTCTGT  
 GGCATTTAAAACCGTCTAGAAATGGTTGTACTTTAATGCCAGTAATAATCTGCTTCCTCTATTGTCATTAAAAATA  
 TATACGTTTAGTGATCACACAAACCAATCTTATAAGGGTAATGTAAAAACCCCAACAATTGTACATGTTCTGTT  
 TTTGAAAATTGTGGCATGTATTTTGGGTGAAGATCATTAGAGAAGAGTTCTCTAAAGGTTTTCTGTGTTTCATAC  
 ATGGTATACAGATAGCTCATAATGAAGTCCAGAATCTTACTTTAAGTGAAGGCATTGTGAATTCACCTCAAGTA  
 AACCCATTGTTCCAAAGCAATTATAAACTTTGACTCTAGTACTACTATGATTTAAAAAAAACCAACAAAAACC  
 TTTTTTCCTAGTTTCAGATACACTGGATTCTTTATAGAGTTTGTCTCCATATGAAAGCATGCTGTCCAGTCGCTC  
 TTGTTAAGATCTTGTCTGAGTTTTGAATTGGGTGCCACACTTTCCAGTCAATATAATTGCTTGTCTACTGTAC  
 CATGTATGATTCTTGTCTTTCCCTATATCCTTCATGACAGATTATGATGTGGCTTTATATTGTGCCTTACTTGTA  
 CATTTAAACTAAACGTCTTCATTCCCTTCCACTTCCCTACATCTTTAACTTTGACCTTTTTGGTAAGAGAATCAG  
 AACTATTACAAAAGCATCATGAAGGATTTTCAGATGGGTATGTTTTCAAATTCCTCTCTTTATAGTTATTTTATA  
 TTTGTATGAAAGACCAGTTTTGGATGGTCTTTGAATATAGGGGGAAAGATTAGCAGTAATTTCACTACATCCCT  
 TTTCTCTGACTTTTCATGCATTTCTCATACATCTTCTTCTGATGCTTGACTTTATTTGCTTCCTAGCAATAGTCT  
 GCATTTAAAGAAAGGTGTGTTCAATTCATCAGCTTGAAATTGACTATTTTCATTTTTCCAGGATTTTTTAGGAGAA  
 GAGTACCCATTTTGTTTTATAAAAACAGATGACAAGTCTCTTTAAAGAAACAGAAGTACAGTACTTTGAAATA  
 CAATGCTGTAGTTTGGATTTCTTTTATATATATATAATATTACATACATGATCTGATGTTTGCTTCATTA  
 ATAAAGCTGTAGTTTATTACCAAAATGTCAAGAATGGATGTGCTTTTCTTTATTCCACACATTTAAAAAATT  
 TAGCTGCTAAGATTTAATGTTATAAGAAATGAATTCAAGTTGCCTTCAGCAAGAATTAACAAAACTTATGTTCC  
 CTTTCTTTATATAGTTTCCIAAAATTCTGTTCAAGTATTTTCTAGTTAATTATGTAACAGAATGTTAGCATCTCT  
 CCATATCTTGAAACTTGAATTTTGAGAATGCATTGAATTATGCTTTTCAGTGTTAAAGTAAAGGTTTCAATTATC  
 CTTCTAGTGAAGTCTGTTGTGGAATACCATTTCCTATGGAAGTGGGCCATTTCCACAACCTTTGCACAGAACTGC  
 AGTCTTGTCTTCCCTTGGATCATGACAAATAAGTCTCACACAGTGCCGTAATACTTGTGGATTCTTTTGTAAATC  
 TTTGTAAATCTTAATAAGGGCATTATGAGAAGACGACTCCATGTTTTTTTTAATACTTCAAACACATTGGGATGTAA  
 CAATGAATGTCAACTGTAGGAATGGTGGTTTTCGTTTTAAGGAATAAGCATGTTGGGGAAAGATGATGAAAATGTA  
 CTACTGAAAGTTATACACTTCCATAGGCAAAATGGGATTATGTGTTGAAGCATAGTCCTCATGCTTAATAAACTGA  
 CTGAAATCGTAGAAATTACACCTAGGAAGTGAAGTGGCCAAATTGCCATTTTTGTTTAGAGAGTTTTGGAGGTA  
 GTAGTGAGGGGACAGAGCCTTAAACTACTTCCAAACAGTATTTTGAATTGAAGACTTGGTAAGTGTGAAGAA  
 CATCAAAGTTGGGTATTTCAATGTGCCAAGTTTGGGTGAAGTGGTTTCGCTTTTTCATAACAATGTAAA  
 CACAATGGTGTAGTTAATTAAATTCTGGGTGGATAGGAGCAGGACTGATTACTATGTCTTGCCTTCGCCCTTTG  
 TTTTTTTCAGAACCAATAACAGAAATGTGTATGTGTGTACTGTATCTGCCTTTCCACCACATTTTTATGACACT  
 GTATTCCACTGCCTGCTTTTTTACCTTCTTTCCCTAGGATTTGTCTACAGCTTAGTATTGTGGTTGACAGCGAT  
 ACTAGGGCTGACAGCACAGAAGTCACAAGAGAAGAGTGGAAGGGCAAGAATTCAAAGCATTGTTCATACAATGT  
 GGCAACCTCTTTTGATAGTTGCGTAGGATCCTGTTTGTAAATGCTATCATAAATATTCTGTAGTTTTTTTTTTT  
 CTCTCCCAACTGGAGCTATGACACTTTTTATTGGATTGAGTCTTGTCTCTGTCTAGAAAGAACTTTATCTTGT  
 GACGCATGAGCTGTTTAAAAATTATCCTATTAAATGTTGGTTAATAGTTGTGCAGTTTTTCATTTAGATGGA  
 GGCAATGCAAAATTTTGCTTTGTTTTCTGTACCTTCCAACCCCTGAGCACTTCTAGTCAGATACAGATTCATCA  
 GTGTATGCAACATCCTTTGTAATTTAAAAATAAAAAAGATGAAAAGAAAACGTTCTGAATTGTTTGCTCATGTT  
 TTCGCCCTTCTTTCTGTACTTATATCTTGCTTACCTAGGTAACCATCCGCTCCTCAAGATAACCTATTCCAAAG  
 AAATTCCAAATCACAGAG

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**FIGURE 1310**

NLGEQPTKCSPEEDEEDEEDVDDHDEGFGSEHELSENEEEEEVEEDYEDDKDDDISDTFSEPGYENDSVEDLK  
EVTSISSRKRGKRRYFWEYSEQLTPSQQERMLRPSEWNRDTLPSNMYQKNGLHHGKYAVKKSRRTDVEDLTPNPK  
KLLQIGNELRKLNKVISDLTPVSELPLTARPRSRKEKNKLASRACRLKKKAQYEANKVKLWGLNTEYDNLLFVIN  
SIKQEIIVNRVQNPRDERGPNMGQKLEILIKDTLGLPVAGQTSEFVNQVLEKTAEGNPTGGLVGLRIPTSKV

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**FIGURE 1311**

GGCACGAGGCTGGAACCAAACAGTTTGGCATGTGTGTCAGTGATACACAAAATAGTTTTGCAGATTATGGTTGTA  
TGTTACAAATTAGAAACGTGCATTTCTTACCGGACGGAAGGTCTGTGGTTGATACAGTTGGAGGAAAGCGGTTTA  
GGGTTTTAAAAAGAGGAATGAAAGATGGATATTGCACTGCCGACATTGAATATCTGGAAGATGTTAAGGTTGAGA  
ATGAAGATGAGATTAAGAATCTCAGAGAGCTTCATGATTTGGTTTACTCTCAAGCCTGCAGCTGGTTTCAGAATT  
TAAGAGACAGATTTGGAAGCCAAATCTTCAGCATTTTCGGATCAATGCCCGAGAGGGAGGAAAACCTTCAGGCAG  
CCCCTAATGGACCTGCATGGTGTGGTGGCTTCTTGCACTTCTCCCTGTAGACCCACGATACCAGCTGTCGGTTT  
TGTCAATGAAGTCTTTGAAAGAACGGTTGACCAAGATACAGCATATACTGACCTATTTTTCTAGAGACCAATCTA  
AGTAACTAACTCTTTGGATCTCCCTTTAAAGTGACCCTAATCTGGCTGCATTGATGGCCAGATTGTCTGCTGCCT  
TTGCACATCTAGTGCTGGTTTCAGAAATTTAATGAAACTTTTCTTTTTCCTTCGACCTCCTGAATCATGTGGTTC  
TGCAATGAATACCTTCAACTAGGATTTAGACCACTAAGAACTTGACAGAAAAACACGCATTGAATGTGTGTGCG  
AACCTCTACATTGTGAAGTTGCACTATGTACCATACTCTAAAAATGAAATAAGAACTCTTTATGTCTGTGAGAGAG  
TGTGTGTGTGTGTGTGCGTGTGCTTGTGGGGGTTGGGTAGTGTGTGTGTATTTTTCTCTGGCTTTAAAAAT  
CTTAAAACAAACAAACAAAAAGCCATAGAGAGCAGAACTTGCCGAGGGTCATTTATTGCCCAAGTTTACAAGAG  
TAGCGATACAAGTTTTTGCAAATTGAATTTGCCTCAGATATATCTGTCTAATGCTTATATTTGCACAAGTATGT  
AAAATATCGTGTGAGGATCATTCTTTGTTGGAATACTGCTCTTGCTGAACTGTCTTGACCATTGACTATGACA  
CAGTTTCTTATTTATGTAAATACTTGCATCACAGTGGCCGACAGGCATTGGATGCAGAACCTAGAGCCAGTTTTC  
AGGAACAATTGTAAACCTGACATGGTACTGTGCATCTATTATATAAAACACTCAAACTGTGAAAATATGGTTTAC  
ATTTAATTGTACATAAAGGTAAAGGGGAGAACTCAATTCAGTACCAGTTAGTTTGTACATTTTAGGGGGCTTTTCA  
CATTAACTGCCCATTTGTGTAATTTATAGTTTGACATGATGTGTTTGTTTTAAAAAAAATGCATAGTATAAACC  
CATTAAAGGATCTGGGAAAAGAGAAGAAGTTTAATATAGAACTAAGCTTTTAAAGTTTGTTTTGTTTTAAATTCT  
GGTCTCGGTGCAAATGTTAGTTATGCCTTATTATATCACAGTTAGATCACCATGCTGCAACATGGTTTATATTC  
ATGCTGCCCTAGAACTTTTGTAAATTATTTGTTGCAAATTTGTGACTGTCCTTATTAACCTTCTTTTATGTAAGT  
AATTTGTAAAAAGTTTCTTAAAATTTTGCTTTTGCTTATTTAATTTTGAATAAAAGCTAAATTCCTAAAAAAA  
AAAAAAA

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**FIGURE 1312A**

CAGGGCTGGCTTTTTTTTTTTAATAAGATAGCTGGTGCCCAAGATTGTTTTCCACCTTAAGGATAAAACCTGTT  
AAGAAAGCCTGAACAATTACAAAAAGGAAGAAAGGAGACTTGCCCACTGGTGTGAGGAGTCTTAACAAGGTC  
ATAGTTTGCCAGCCCCTGCCCTAAACAAATAATTCTTGAATGCCTACTGTGGTGTGTAAGATATGAGTAAATACC  
AGGGATACACAGAGAACAAAAGAGAAAACTGCTATTCTTGTGAACTTGGAAGTTGGAGGAGACTTGGAAGATG  
CAGAACTGGATGACTACTCATTCTCATGCTATAGCCAGTTGGAAGTGAATGGATCGCAGCACTCACTGACCTGTG  
CTTTTGAGGACCCAGATGTCAACACCACCAATCTGGAATTTGAAATATGTGGGGCCCTCGTGGAGGTAAAGTGCC  
TGAATTTGAGGAACTACAAGAGATATATTTTCATCGAGACAAAGAAATTTCTTACTGATTGGAAAGAGCAATATAT  
GTGTGAAGGTTGGAGAAAAGAGTCTAACCTGCAAAAAATAGACCTAACCACTATAGTTAAACCTGAGGCTCCTT  
TTGACCTGAGTGTCTATCTATCGGGAAGGAGCCAATGACTTTGTGGTGACATTTAATACATCACACTTGCAAAAGA  
AGTATGTAAAAGTTTTAATGACGATGTAGCTTACCGCCAGGAAAAGGATGAAAACAAATGGACGCATGTGAATT  
TATCCAGCACAAAGCTGACACTCCTGCAGAGAAAGCTCCAACCGGCAGCAATGTATGAGATTAAAGTTCGATCCA  
TCCCTGATCACTATTTTAAAGGCTTCTGGAGTGAATGGAGTCCAAGTTATTACTTCAGAACTCCAGAGATCAATA  
ATAGCTCAGGGGAGATGGATCCTATCTTACTAACCATCAGCATTTTGAGTTTTTCTCTGTGCTCTGTTGGTCA  
TCTTGCCCTGTGTGTTATGGAAAAAAGGATTAAGCCTATCGTATGGCCAGTCTCCCCGATCATAAGAAGACTC  
TGGAACATCTTTGTAAGAAACCAAGAAAAATTTAAATGTGAGTTTCAATCCTGAAAGTTTCTGGACTGCCAGA  
TTCATAGGGTGGATGACATTCAAGCTAGAGATGAAGTGAAGGTTTTCTGCAAGATACGTTTCTCAGCAACTAG  
AAGAATCTGAGAAGCAGAGGCTTGGAGGGGATGTGCAGAGCCCCAACTGCCCATCTGAGGATGTAGTCATCACTC  
CAGAAAGCTTTGGAAGAGATTATCCCTCACATGCCTGGCTGGGAATGTCAGTGCATGTGACGCCCCATTCTCT  
CCTCTTCCAGGTCCCTAGACTGCAGGGAGAGTGGCAAGAATGGGCCTCATGTGTACCAGGACCTCCTGCTTAGCC  
TTGGGACTACAAACAGCACGCTGCCCCCTCCATTTTCTCTCCAATCTGGAATCCTGACATTGAACCCAGTTGCTC  
AGGGTCAGCCCATTCTTACTTCCCTGGGATCAAATCAAGAAGAAGCATATGTCACCATGTCCAGCTTCTACCAAA  
ACCAGTGAAGTGTAAGAAACCCAGACTGAACTTACCGTGAGCGACAAAGATGATTTAAAGGGAAGTCTAGAGTT  
CCTAGTCTCCCTCACAGCACAGAGAAGACAAAATTAGCAAAACCCCACTACACAGTCTGCAAGATTCTGAAACAT  
TGCTTTGACCACTCTTCTGAGTTTCAAGTGGCACTCAACATGAGTCAAGAGCATCCTGCTTCTACCATGTGGATT  
GGTCACAAGGTTTAAAGGTGACCCAATGATTTCAGCTATTTAAAAAAAAGAGGAAAGAATGAAAGAGTAAAGGAA  
ATGATTGAGGAGTGAGGAAGGCAGGAAGAGAGCATGAGAGGAAAGACAGACAGGAAAATAAAAAATGATAGTTGC  
CATTATTAGGATTTAATATATATCCAGTGCTTTGCAAGTGCTCTGCGCACCTTGCTCTACTCCATCCTGACAATA  
ATCCTGGGAGGTGTGTGCAATTACTACGACTACTCTCTTTTTTATAGATCATTAAATTCAGAACTAAGGAGTTAA  
GTAAGTTGTCCAAGTTGTTTACACAGTGAAGGGAGGGGCCAAGATATGATGGCTGGGAGTCTAATTGCAGTTCCC  
TGAGCCATGTGCCTTTCTCTTCACTGAGGACTGCCCCATTCTTGAGTGCCAAACGTCAGTAAACAGGGTGTGC  
CTAGATAATTTATGATCCAACTGAGTCAGTTTGGAAAGTGAAAGGGAACTTACATATAATCCCTCCGGGACAA  
TGAGCAAAACTAGGACTGTCCCCAGACAAATGTGAACATACATATCACTTAAATTAATGGCTATGAGAA  
AGAAAGAGGGGGAGAAACAGTCTTGCGGGTGTGAAGTCCCATGACCAGCCATGTCAAAGAAGGTAAAGAAGTCA  
AGAAAAAGCCATGAAGCCCATTGATTTTCTGAAAATAGGCTCAAGAGGGAATAAATTAGAACTCACA  
ATTTCTCTGTTTGTACCAAGACAGTGATTCTCTTGCTGCTACCACCCAAGTGCATCCGTCCATGATCTCAGAG  
GAACTGTCGCTGACCCTGGACATGGGTACGTTTGACGAGTGAGAGGAGGCATGACCCCTCCCATGTGTATAGAC  
ACTACCCCAACCTAAATTCATCCCTAAATTTGTCCTCAAGTTCTCCAGCAATAGAGGCTGCCACAACTTCAGGGAG  
AAAGAGTTACAAGTACATGCAATGAGTGAAGTGAAGTGTGCTACATTCTTGAAGATATACGGAAGAGACGTATTA  
TTAATGCTTGACATATATCATCTTGCCCTTTCTTGGTCTAGACTGACTTCTAATGACTAACTCAAAGTCAAGGCAA  
CTGAGTAATGTCAGCTCAGCAAGTGCAGCAAAACCATCTCCACAGGCCTCAAACCCCTGGCTGTTTACAGAAC  
CACAAAGGGCAGATGCTGCACAGAAAAGTGAAGGGGTCATAGGTTTCAAGGTTTTGTTTGGAGATTTGTTGCTA  
CTGTTTTTCTGTTTTGAATTTTCTTCTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTTTGTGTT  
TAGTTTTTCTGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTGTTTTG  
GGCTTAAAGGACTGGTAAAATCAGACCATCTTATTCTTCAGGTGAATGTTTTACTTTCCAAAGTGCTCTCCTCTG  
CACCAGCAGTAATAAATACAATGCCATAATCCCTTAGGTTTGCCCTAGTGCTTTTGCAATTTTCAAAGCACTTCCA  
TAAGCATTCTTCCACCTCCTTGATAGGCATTTATGGAAAGCCTGCTACATGTCAATCATACTGTTAGGCACAGG  
GGACCTAAAGACACATAAAAGGATGGCATTCTGCCTCATAAATTGCAAAACCTAATGAAAGTGACTGCTTGGTAA  
ACAAATTATTATTATATTATAAAATGCTATAAAAGAGCCATATTGAAAGTGCCCTGTTGGAGACAGGGCAAATGC

**FIGURE 1312B**

CACAAAAATGATGTAAATTTACATGGAGGAAAAGTAGAATCTGCCTGGTTTGTAGGCAGCAGAAGACATTTTTCA  
TCAGTGGGCAGGTGTTCTTTACCTTTTGTAGAAATGGGAGTCAAGTCTCAAATAGGAGGCTCCACAAAATCTCAT  
GCCAGGTCTCTGATACCTTATTCACAGAAGTTCTTTGAAGTATTTATTGTTATTTTCTTTGACTTATGGGAAAAC  
TGGGACACAGGAAGACAGGTAAATTACCCAACCTCACACGTTAAGTCAGAACTGGGAGCCATAATTTTGTATCCC  
TGGTATAAATAGACAATCTCTTGAAGAAATGAAGAGATGACCATAGAAAAACATCGAGATATCTCCAGCTCTAAA  
ATCCTTTGTTTCAATGTTGTTTGGCATATGTTATCTTTGGAATTTAGTGTCTGAGCCTCTGTCTGTTACTGTAGT  
ATTTAAATGCATGTATTATAATCATATAATCATAACTGCTGTTAATTCTTGATTATATACCTAGGGACAATGTG  
TAATGTAAGATTACTAATTGGTTCTGCCCAATCTCCTTTTCAGATTTTATTAGGAAAAAAAAATAACCTCCTGAT  
CGGAGACAATGTATTAATCAGAAGTGTAAGTGGCAGTTCTATATAGCATGAAATGAAAAGACAGCTAATTTGGT  
CCAACAAACATGACTGGGTCTAGGGCACCCAGGCTGATTTCAGCTGATTTCTACCAGCCTTTGCCTCTTCCTTCA  
ATGTGGTTTCCATGGGAATTTGCTTCAGAAAAGCCAAGTATGGGCTGTTTCAGAGGTGCACACCTGCATTTTCTTA  
GCTCTTCTAGAGGGGCTAAGAGACTTGGTACGGGCCAGGAAGAATATGTGGCAGAGCTCCTGGAAATGATGCAGA  
TTAGGTGGCATTTTTGTCTAGCTCTGTGGTTTATTGTTGGGACTATTCTTTAAATATCCATTGTTCACTACAGTG  
AAGATCTCTGATTTAACCGTGTACTATCCACATGCATTACAAACATTTTCGAGAGCTGCTTAGTATATAAGCGTA  
CAATGTATGTAATAACCATCTCATATTTAATTAAATGGTATAGAAGAAC



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**FIGURE 1313**

MHDVAYRQEKDENKWTHVNLSTKLTLQKRLQPAAMYEEKVRSIPDHYFKGFWSEWSPSYFRTPEINNSSGEM  
DPILLTISILSFFSVALLVILACVLWKKRIKPIVWPSLPDHKKTLEHLCKKPRKNLNVSFNPESFLDCQIHRVDD  
IQARDEVEGFLODTFPQQLESEKQRLGGDVQSPNCPSEDVVITPESFGRDSSLTCLAGNVSACDAPILSSRSI  
DCRESGKNGPHVYQDLLSLGTTNSTLPPFSLQSGILTLPVVAQQPILTSLSGNQEEAYVTMSSFYQNO

FIGURE 1314

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**FIGURE 1314**

CGGGCGAGAAGGGCAGACGGGACATGCAGCCTCTTCCGCCTGAGCCCCGGAAGTGATGTGGCTGCGGCATCGCGG  
CCTCGCT**ATGT**CTGCCATTTTCAATTTTCAGAGTCTATTGACTGTAATCTTGCTGCTTATATGTACCTGTGCTTA  
TATTGATCCTTGGCACCAGCCTCCTGGACAGAAATAAACTGGATTGTTGGGTATATTTTGAAGTGTGCCAG  
AATTGGTGAACGGAAGAGTCCTTATGTTGCAGTATGCTGTATAGTAATGGCCTTCAGCATCCTCTTCATACAG**TA**  
**G**CTGGGGAAAATGCCAGAATGTAGTTGCCATCAGATTTGATTGTGAACAAGGACTGACTGCAGAAAATAATGGAA  
AGGATGTTTAACTCTTTTATCTCCGAACATTGAATGAGATAAAATTTCCAGATGCTGTTCTCTATTTTAATGTTAT  
TGGACCAATGTTCTGTATAAACAATTAAGATGTAACCATTTAATAGTCTGTAACAATCAACCTCAGTACTGTCAC  
TACAATATTACATTCTGCAAATGTTATTCTGTTGTATCAGATACAAAATTTTAGTGAGGTATCTCTAAGGCACAT  
AGTAGAAAACAAAATTGGTTAATTACTCAAGTTCCCTTTCAGTGTGATTGGAATGATTTAATCTTTATAGAATG  
AGAACCTTTTTTGGACTAGCTTTTTTATTAAATGGCTCAATTTGTGTTGATAAGGATTGCATTAATATTTAATA  
GTGCTTGCTTTTCTCTGGGCACACCATTTTGATCATTAAACCAGAGTACCTCTACTCTTAGCAAACCTCTAGTTTA  
TGACAAGTATTTAAAATATTTAAACAAGCTTATGCAGTTCTTAAGGACGAAGGTAAATGAGATGTAACCTTAAAA  
ATAGTATTGGGAAAATGTTGATAGTTAACATTAGTGGATTTAGACTAGCCAAATGACATAGTAGGCTCTGAAACA  
TCTTGTCAGTATATGTATTTGTGCATGAATTTTGTGCTGGAAAGCTGTCTTCTCTGAAAAACACAACGTTCTT  
AGAATGAAAAGAACAATTATAAAATAAAAAAAAAAATTTAAAAAAACTGGGCGGGGG

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**FIGURE 1315**

MSAIFNFQSLTIVILLICTCAYIRSLAPSLDRNKTGLLGIFWKCARI GERKSPYVAVCCIVMAFSILFIQ

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**FIGURE 1316**

GGAATTCGGCACGAGCCCGATTCCGCGCCCGCC**ATG**GCCGACAAAATGGACATGTCTCTGGACGACATCATTAAA  
CTGAACCGGAGCCAGCGAGGCGGCCGGGGCGGGGGCCGCGGCCGGCCGGCTCCAGGGCCGGCCGCGCGGTGGG  
GCGCAGGCCGCGCGCGAGTGAATCGAGGCGGCGGGCCCATCCGGAACCGGCCGCCATCGCCCGGGCGCGGCC  
GGCGGAGGCGGCAGGAACCGACCGGCGCCCTACAGCAGGCCAAAACAACCTCCCGACAAGTGGCAGCACGATCTT  
TTCGACAGTGGCTTCGGCGGTGGTGCCGGCGTGGAGACAGGTGGGAACTGCTGGTGTCCAATCTGGATTTTGGG  
GTCTCAGACGCCGATATTACAGGAACCTTTTGCTGAATTTGGAACGCTGAAGAAGGCGGCTGTGCACTATGATCGC  
TCTGGTCGCAGCTTAGGAACAGCAAACGTGCACTTTGAGCGGAAGGCAGATGCCCTGAAGGCCATGAAGCAGTAC  
AACGGCTTCCCTCTGGATGGCCGCCCCATGAACATTACGCTTGTCACGTCACAGATTGACGCACAGCGGAGGCCT  
GCACAGAGCGTAAACAGAGGTGGCATGACTAGAAACCGTGGCGCTGGAGGTTTTGGTGGTGGTGGAGGCACCCGG  
AGAGGCACCCGCGGAGGCGCCCGTGAAGAGGCAGAGGTGCCGGCAGGAATTCAAAGCAGCAGCTTTCGGCAGAG  
GAGCTGGATGCCCAGCTGGACGCCTATAATGCGAGAATGGACACCAGT**TAAA**CAGACCAGCAAATCCGCGTGCGG  
AACAGGACCCAGGCGTCTCCTCTTGCTCCCTGGTTGGGGGGCGGTGGCTGGGGCTGTGCGCCCAATGATGGATTT  
GTTTCTTTTATGTTTTAAATAGGATTTAAAACTCATGTAAAGGTTTTTTTTTTTTCTTTTTTTTTTTTTTAAT  
TCTGAAACAGACCTGTTTTGTACCGAGTTATTTTTGGGATAAATTTACTGGTTGCTGTTGTGGAGAAGGTGGCG  
TTTCCACCTTTTCCATAATAAAATAGAAATGTGTGTAA

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**FIGURE 1317**

MADKMDMSLDDI I KLNRSQRGGRGGGRGRAGSRAGRRGGAQAAARVNRGGGP I RNRPAIARGAAGGGGRNRPAPY  
SRPKQLPDKWQHDLFD SGFGGAGVETGGKLLVSNLDFGVSDADIQELFAEFGTLKKA AVHYDRSGRSLGTANVH  
FERKADALKAMKQYNGFPLDGRPMNIQLVTSQIDAQRRPAQSVNRGGMTRNRGAGGFGGGGGTTRRGTRGGARGRG  
RGAGRNSKQQLSAEELDAQLDAYNARMDTS

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**FIGURE 1318**

GGAATTCGGCACGAGCCCGATTCCGCGCCCGCC**ATG**CCGACAAAATGGACATGTCTCTGGACGACATCATTAAA  
 CTGAACCGGAGCCAGCGAGGCGGCCGGGGCGGGGCGCGCCGGGCTCCAGGGCCGGCCGCCGCGGTGGG  
 GCGCAGGCCCGCCGCGGAGTGAATCGAGGCGGCGGGCCCATCCGGAACCGGCCGCCATCGCCCGCGGCGCGGCC  
 GGCGGAGGCGGCAGGAACCGACCGGCGCCCTACAGCAGGCCAAAACAACCTCCCGACAAGTGGCAGCACGATCTT  
 TTCGACAGTGGCTTCGGCGGTGGTGCCGGCGTGGAGACAGGTGGGAAACTGCTGGTGTCCAATCTGGATTTTGA  
 GTCTCAGACGCCGATATTCAGGAACCTCTTTGCTGAATTTGGAACGCTGAAGAAGGCGGCTGTGCACTATGATCGC  
 TCTGGTCGCAGCTTAGGAACAGCAAACGTGCACTTTGAGCGGAAGGCAGATGCCCTGAAGGCCATGAAGCAGTAC  
 AACGGCTTCCCTCTGGATGGCCGCCCCATGAACATTAGCTTGTACGTCACAGATTGACGCACAGCGGAGGCCT  
 GCACAGAGCGTAAACAGAGGTGGCATGACTAGAAACCGTGGCGCTGGAGGTTTTGGTGGTGGTGGAGGCACCCGG  
 AGAGGCACCCGCGGAGGCGCCCGTGAAGAGGCAGAGGTGCCGGCAGGAATTCAAAGCAGCAGCTTTCGGCAGAG  
 GAGCTGGATGCCCAGCTGGACGCCTATAATGCGAGAATGGACACCAGT**TAA**ACAGACCAGCAAATCCGCGTGC GG  
 AACAGGACCCAGGCGTCTCCTCTTGCTCCCTGGTTGGGGGGCGGTGGCTGGGGCTGTGCGCCCAATGATGGATTT  
 GTTTCTTTTATGTTTTAAAATAGGATTTAAAAACTCATGTAAAGTTTTTTTTTTTTTTCTTTTTTTTTTTTAAAT  
 TCTGAAACAGACCTGTTTTGTACCGAGTTATTTTTGGGATAAATTTTACTGGTTGCTGTTGTGGAGAAGGTGGCG  
 TTTCCACCTTTTCCATAATAAAATAGAAATGTGTGTAA

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**FIGURE 1319**

MADKMDMSLDDIIKLNRSQRGGRGGGRGRAGSRAGRRGGAQAAARVNRGGGPIRNRPAIARGAAGGGGRNRPAPY  
SRPKQLPDKWQHDLFDSGFGGGAGVETGGKLLVSNLDFGVSDADIQELFAEFGTLKKAHVHYDRSGRSLGTANVH  
FERKADALKAMKQYNGFPLDGRPMNIQLVTSQIDAQRRPAQSVNRGGMTRNRGAGGFGGGGTRRGTRGGARGRG  
RGAGRNSKQQLSAEELDAQLDAYNARMDTS

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**FIGURE 1320A**

[illegible]



FIGURE 1320B

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# FIGURE 1320B

CCTCAGCATCCCCTCGACGGCCTGGAGGGACCACAGCCCCGGCCAGAGGCGCAGGGCAGAGGACATCCCTTCCGG  
AGGTTCTGCGGCGGAGGGCTGCCGACCTCTCCCCACGCGCCAGGTGAGGCGCGTAAAGGAAGGGGAGCTTGTCTC  
ACTCACAGAGGGCCCGGCTCGCGGGAGGCGCCTGCGGGGTGGGCGCGAACTGAGATCCAAATTTCTGCCCTTTCC  
ACTACGTTCCATACCCCCGCCCTAACACAGTCTCTCAATCCAGCTCCCTTCTAACTCCCCGAAACATCCAGAGG  
GGTGGGCGGGAGGAGAAGGGAAGGCCCTCAGGCCACAGACGGTGGGAGTGGAAGGTCTGTTCGGAAGTCACTCTT  
GGGGCCCAACCCAACTTTCAAAAAGAGGCAGCTGCAACCCTCCTAGCCGGTCTCCGTACTCAAGGACTCTCCCGA  
GCCCAGAGGCGAAGGCCGAGCCCTGCGTCCAGCAGCTGAGGGGGGGCGGCCCCCTGACCCCTGGCCCCGCGGCC  
CCGCACAGACCCAGGGCAGCCCCGGCTCCCGCGGCCCGGCCCTCCCCAGATCCCGGAAGGAGGCCGCCGCCAGC  
CGCGCCAGCGCCAGTTGTTACGTTGGTCCCGTCTCCCGTCTCTCCACGATCCAGTGGGGGTTCCTTGCCCCA  
CTTGCCATGGCGGCGTGGACTGGGCGGAAAACAAGGAAAGGCCGCGGCCTAAGGCTCCGAAGCCAGCGTTTC  
CGGCCGCCGAGCCCCGGGCGGCGCGTTTCGACGCTCCCAGAACTGCCAGAAGC

XXXXXXXXXXXXXXXXXXXX

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**FIGURE 1321**

MKTETREVLTPSTSDNETRDSSIIDPGTEQDLPSFENSSVKEYRMEVPSSFSEDMSNIRSQHAEEQSNNGRYDD  
CKEFKDLHCSKDSLAESEFPSTISAVLSDLADLRSCDGQALPSQDPEVALSLSCGHSRGLFSHMQQHDILD  
TLCRTIESTIHVVTRISGKGNQAAS

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**FIGURE 1322A**

TGACAAAATCTTTTATTTATTTAAATGTTAGTAATACGTTTATTGATGAGACTAGGAGCTTCTCTGCAGCATCTT  
CATAATACATTGGTTTTAGTTCCACACTATTCCACATCTTATCTGGGAAGATTAGAAATACAGATGTAATATG  
GAAGCTTCAACAGCATGGGGTGGTGATAGTGTCTATTTGCCCTTGGTAAATATTAAAGCGTATTTCTTAACC  
CAAAGAGTGATTGGTTATATGAATATATTTGAAAAAGTTAAAGCAAATTTGCAAACCTTTACAAAATCATGTATC  
AATTTTATGCTATCCAGTTTTTACGTACCCATGTGTCAACATTTTCATATATCCAGTTCTTTGGGTGCTGGTTTAC  
TTTTTTTCATTTATTCAAATTCAGAAAAATACGGACGGATCTAATGTTAAATTAACCAGAAACCTTGGAACATTC  
ATATCTTGAGAGGGAATTTGCTACTCTTTTACTTTTGGGATTTTCATTATAAAATAGGCTCATTTTATACATATGT  
CCTGTGGTCTGTCTTCCAGAGTGTGCTGTAATCATAAGTCTCTAGCAAAGAGTGGAGGGTGGAGGGTGTGTAGAA  
CTCCACTCAGCCTCATGGATACATCTACAAGTCTCTCAACCCATCCTGTTACAGTTCTCCATGAGAGTCACCTCA  
CACTTGAAAAAGAGGAGGTTAAAGCAGAGTATTGTTGGCAGCCAGCTATGCCATCCTCTTGTAATAACTTTC  
CAACACACCCATTTCTTGCCTTAAGGTGCAGGTTCTACTTCTACAAAATTTCAAATGATTGCAGGTCAAAAAAC  
CTTTGGAGTTACTCACAAATAATAATAAAATTTCAAATAACTAGGGTCTACTTGTCCATCAAGATGACATTACCA  
GTGGAACCCACCTGTTAATTTTAAAGTAGCTTCAGAACCCAACAAAATTATGTAAGCCTGGTTAAATGTCTTTT  
TTTCTTCTGCCTCTAATAAAATCAGGATCTTCGGCCTTGATACTAAATATGTGTATATTTAGTTATGATGGTAC  
TTGTAGATGCTCACATTTCCAGTTCCAAACTCGCCCGTACTTTTTATGTGCTTCAAATATTGGACACATTTCTG  
TTAATATATGATTTCTGTATCCACAAACCGCTGTTTGCTTATGCTGAGTCAATTTAGAAGTTAATTTCCAATCTA  
GTCTCAACTGCAATGCATTTAAAATAGGTAACAAGTAAATGAGTTTGGGACATTTTGAGATTAATGTTACTGC  
CCACTTGACTGTCAATTTCAAATGGCTCCTAATGCAACCAAAATTATAACCAATGTAGCATGTGTAGGAAAGGTA  
TTTTTAATTATTTAAAATCATTGTGTATATTACAGCAGTATGAGGAATGCCTGGCTAAAGAGGATTTTTTAAAG  
ATGAAGAATGGTTTTGCTTGTATTATATAGGCTTACTGAGTTTGTGAGCAGCATAAAAACAATCATTCTTAATT  
CTTCATTGTGGAAGTGAATATTTCTGTAATGCATTTTTTAAAAGGAGACTCCTAGACACAGCTGTAATAGTGGG  
AATAGAAATGTAGAGCTTTTCTCATAACACAAAACCAGAAAAATAATTTTACGACTTTGACTTACTCTATGTAAT  
AAGGAAAAAATTGTTTCCACAAAGTTGAAGTATGTAGTAATATTTGGTAACATATGGCATGGCCACTTTATATC  
ACAGAATGTGTCAAGTTGCAAAGCATACTTGGGCCATAGCAGACACTAAGAATTAAAACTCTTAAATCAGTGA  
AACAAAACTAATGGGCAGCATTCTCTCTGTTTGGAAATGGGATCAGTATACAATTAATACAATTTAATTTTACAC  
ATTCCCTAAGACACCATTTTTAAGTTACAGTCACATGAGTGTGTGATAAAATTTAAGTCAATGCTTTTTAGCCTAG  
GCAAAGCTAAATACAAGTTTTTGGGGTTTTCTTTTTTTCAGCTTTATTATTGAAGTATTACAACTTAAACATCAG  
ATACCAATGTGTAAAAAGTACTATTGGGTCTTAAGGGCTCTATCAGGGAGTTGAAATTTTCATACGCTTTACCAG  
GTTACTTGTAATAAATGAACAGCTGTAAGACATTTCAAACCAATTGCAGACACATTGTTAAAATGCAGCCATTTG  
ATAATGAAAGCAGAAACCTTAAGTTTTACCTAATTATTGCACTAAATGTAAATGATAACATAAAATTAAGTGTGC  
ATTTTAAACAGATTCTATTTCCCACTTACTGCTTAGCATAGAAAAAGAGCTATGGTTAGAGGAGTGACCAGCAAG  
ATTTATTTTCAAGTGGAAAAGGGGTGAGAAAGTGAAGCACCTTACTGTTAGAGCATGTTGCATCTATTTAGTGCT  
ACTGAACAATTCAGTAGTTATTTCTGAACCTTTGCTGCAAAGTGCTCTTTAGTTAAAGCACATTAAGAAGGGTCAC  
TGCTTAATTGCTTTGTAAAATGAAGCAATGGTATTTTTATCCGATATAGTGAATTTAAAGTTTTCTTACAAA  
GTGAGTTTATATTGTTGCCTAACTATGTTATGTAAGCAAAGTTTTTGGAAAGGCGGGAGGGAGTCTAGATTCTGG  
CGAGAGTGTGCGTTTTGTGTGTGTGAATGTATGAAAAGTTTCCCATTTGGGTATTCTTAAGATGTGTTATTGTA  
AAGTTTTCTACGTTTTTGGCCACAGTAAATGTACAACCTTCGCAATTGTAGGATTTAATTGATTGAATCCAAATTT  
ATACTGTCTCTTCCCTTCTGCAGAGACATTATGCCACTGTAAAGGTGCATGTACAGAAAATACCTCTGAGGTTGAC  
TTGTTAAATAACTGATGAATGTTATTTACACTGAATCTCAAAGCAGTCATTTGTTTTGCGGGTTAGGGGAAAGT  
TTGTTTTTTTGTGGTGTGTTTTTTGTTGTTTTTAATTAGGCACACTAAGAGTGGCTAAATTTGGGGGAATTGGTGG  
ATAGGAAAGACCTTGAAAAGTGATGTGTAGATGAAAACACAAGGTATGGATGTTGGTTACAGAGTTCAGTTTTAA  
CAAGGGAAATTTGGGGATTTTTTTTTTTTTTACTTGCATGTTCTATGGGTAGCTATCAAAGGGTGAACAAATTA  
TCCAGCTTTTCCCAATACTAATTATATTGGTTTTTAAAAGTCTGCATAATCACTAGGTGGCATTTCCTTCATT  
TGTGAACCAAGAGGGGTAAATGATGCTACCCATACAGTGACTTCTGAGTTCTTTAACTTTGACAGAATCTCCATT  
GTTTCATTGAATTTCTCATTGTATTATATGTCTTTCCAAGTGTGCAAACATAATATGTAGTTAATGAAAAATGG  
AAGGCTGCAGATTATTTGTCATGAATAATTAATTGCCATTAGGGCTAAGGAGACTGCATGATTTTTATCGGTT  
CTGGGTAAATGAAAATTTTAATGAAAACCTCATTACCATTACTAGCTTTGTGCAATATTATAAAAGGTAGAAAG  
CAAAACACTAGCACATTGTGCTTTGCTTGGCTTGTAAAGGATGGCTTTAGTACCATTACATTAAATGGACAGTGTG

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**FIGURE 1322B**

CACAGTGTATTGTAAATGCCAACTCTTGCAAATTTACAATACTTAAATATGTTCAATTAACATCCTAAAGTATTA  
AAAGTACAGAGGAAAACTAAGCAAGCATTATAGCAATACCATGAAATCTCCAGTAATCGTTTTGACTGTTGCC  
TTTTGCTCTTTAGTGCAGCTTTTCTGCATTGTAATTGTATTGCTTTGTATTTTCATGTTTTTACACTCATGACTT  
CAGAGTTAAGTACTTGTACACCAAGTATTGCAATCACCTTTCTCTTGTGTACATGCAATGTAACAACCTACAGT  
TTTGGTGCTTTTAACAATATTCCTCTTTTTCTTTAATAAAGGATATTTATTTGAATTAACCTGATTTTGTTTGTT  
TAAAATATCAGTGGTACATATTTCACTTCATTTCAAATAGGAGGACCATAGCAAATTGTATATCTGTTATGACA  
AAAGTTNTAACATGGAGAACAGGATCCAGAGACCATCCATGCCTGTATTTCTGCCTCTTCCTGAGCGCTGTTTGT  
TGTGACATATTTTGATGGCAACTTTCTTTGTGCTATTAATGAACTTTCTCATTGTTTATAAATATTCACAAAGTT  
TGGAAGTGCTGACTTCCAAATTGGAAAATTTTTAAATGGGGGTGGGGAGAGGCAGAAAAATATTTATAAAGTTAC  
ACACTCA

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**FIGURE 1323**

TKSFIYLNVSNTFIDETRSFSAASS

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**FIGURE 1324A**

GCCATGTCCTGCAATTTATGTACTATGGAACATAGAGCTGAGTATGAATACCGTTCATGAGATTCTTCAGGCTG  
CCATGTATGTTCAACTTATAGAAGTGGTGAAGTTCTGCTGCTCTTTTCTCTTAGCGAAGATCTGCCTAGAAAATT  
GTGCAGAAATTATGAGACTCTTAGATGATTTTCGGCGTAAACATCGAGGGAGTCAGGGAGAAGTTAGACACCTTTC  
TGCTAGACAACCTTTGTGCCACTCATGTCTAGGCCTGACTTTCTGTCTATCTGAGCTTTGAGAAGCTCATGTCTT  
ACTTGGATAATGATCATCTGAGCAGGTTCCCAGAGATAGAGCTGTACGAGGCTGTGCAGTCTTGGCTGCGGCATG  
ATAGAAGACGCTGGAGACATACCGATACCATCATTGAGAATATCCGGTTTTGCTTGATGACCCCAACCAGCGTTT  
TTGAGAAGGTTAAGACATCAGAATTTTATAGATACTCCCGACAGCTCCGTTACGAAGTTGACCAAGCATTGAATT  
ACTTTCAGAATGTTACACAGCAGCCTTTGTTGGATATGAAGTCAAGCCGCATCCGTTCTGCAAAACCGCAAACTA  
CAGTATTTTCGAGGAATGATTGGACATAGCATGGTTAAACAGTAAAACTTCTCTTAAAGAAACCAAGAGTCTGGT  
GGGAGCTAGAAGGCCCAAGTACCTCTGCGACCTGACTGCCTTGCTATCGTCAATAATTTTGTGTTTCTGTTAG  
GCGGGGAAGAGCTGGGCCCGGATGGTGAATTCCATGCTTCTTCCAAAGTATTGAGGTATGACCCGAGACAGAACT  
CCTGGCTGCAGATGGCAGATATGTCTGTACCACGCTCTGAATTTGCTGTAGGTGTTATTGGGAAGTTTATTTACG  
CCGTAGCAGGCAGAACCAGAGATGAGACTTTCTATTCAACTGAGAGATATGACATCACCAACGATAAATGGGAAT  
TTGTGGATCCTTATCCAGTTAACAATATGGACATGAGGGGACAGTGCTCAATAACAAATTGTTTATCACCGGTG  
GAATCACCTCATCTTCCACCTCCAAGCAAGTGTGCGTGTGTTGACCCAGCAAAGAAGGGACCATAGAACAACGGA  
CCAGGAGAACTCAAGTGGTTACCAACTGTTGGGAGAATAAGAGCAAGATGAATTACGCGAGATGCTTTCACAAGA  
TGATTTCTTACAATGGCAAGCTTTATGTCTTCGGTGGTGTCTGTGTGATCTTGAGGGCCTCTTTCGAATCTCAGG  
GATGCCCTTCTACAGAAGTATACAACCCAGAGACTGATCAGTGGACCATCTTGGCATCCATGCCGATTGGTAGAA  
GTGGCCATGGTGTGACTGTGCTGGACAAACAAATAATGGTTCTTGGAGGCCTTTGTTATAATGGTCATTACAGCG  
ATTCCATCCTCACTTTTGATCCGGATGAAAACAAGTGAAGGAAGATGAGTACCCTCGGATGCCCTGCAAGCTGG  
ATGGTTTACAAGTATGCAACCTGCATTTTCCGGACTATGTACTGGATGAGGTCAGGCGTTGCAACTAATGACATC  
CTCCTCCCTAAAAAAGAGGCAAAACAAAGTATTTGTTTGCACAGAGTAATTAATTAACATATAAAGAAAAACC  
TCACCAGTTTTACTATCAAAGCCATTGGTCTAACATTGTAAGAATTTTTCATTCTGTGCTAGCATCCTTTTTTTC  
TTTTCAGTGGCCTCAAACCTCATGCAATAAGTTAATTCTAAGTGCTAGCTCTTGAACTACTTCCAGAAGCAGTTG  
AATAGAATGCTCCACTTATCTGGGATATTGATTTTCTGCTTTAAACATTTCTTTCAGATGTTAGCGTAGGAGTCA  
TGTGTCTTCTAAGAGAAGACCCGATAAGTGTCACTGGATGTGATTTAGTCTCTGTCTCTATCTGAAACCTTTTTT  
GAAGATTTATTTTCACTGTATTTTCACTCTGTTATACTTTTTTAGTTTTTATTATTTAAAAGTTTAAAACCTTTGACCT  
TTTTGCAATGGCTTTTTGCTGAAAATGCAAAAATATAAATTTTCTACAAAATTAACTTTTTATATTCAAAACACTA  
TTTCTAAGCTGCCTTCTCTTATCCGCATTGTGTTAGTGAAAGCATATTCTACTCGCATACAACCTATAAATACA  
CAAGGCACATCCCTTTTATGCGTGGTTAGGATTCTATATTTTAAAGCTAGTGCACCTTACTTGCACACACAGTTCC  
CCACTTGTGTAATTTTAGATGTAACGTCTTTTACATATTAACATTTTATAGAAAGTTGAAATAACTGGAGTCC  
TCATTTGCTATCAAAGTAGCCTATCTTCAGTCCATACTGATTGAGTAATATTTGAACTCCTTATATTTCTGAAAC  
ATGTATGGTTATGAAAATAACACCTTATATTTTATTTTCAAAGTAAATGTTAGTGTTCTTTGTGATGTATGT  
CTTTTCTTTTGAAGATGTTTTTCTTTGTCAGTCTGTTTAAACGTTACCCTGTTTTTAGTGAGAATCGGAGTGGTAT  
ATGACAAGTTCTGGCCCTGCAGCATGCAAGCACTTTTAAAGAGCATTAGGTAATACCAGACTCCTAAATCAAGG  
CCCCTTAAAAGTAAGTGCAACTCCCATTTTTTACATTCAGTAAGGCTGCTGCATTTGTTATTGAATGGAAGGTAG  
AAACTCTTAGAAAATTTGACCTCAGTTTTGACTTAGAGGTAAGAAATAGAATTATAATGTTACTGGTTTTATCTA  
CTTGTTTTATTTGTACAAAATACCCAGCGACACTAGGGATGTAAGCCCTCAGTTTTTGTGTTTTATTACTGAAAGC  
TATTAGCATGAAGGATAGTAACCACAAAGTTCAGAATGGATCAAGAATAGCTGTTTAAAGCATTATATAAAGT  
GTTTTAGGATTAGCTGCACCTTTCAACTCTTTAAATGCAGAGGAAAAACATAGTTGACAAAGTTAAGCAAGAAT  
AACCTGGGAGTGGATCATTGAAATTGATGCCATTTGCGCATGAGTAGTCTATATCTGATACAGACTAGATCTATA  
CTGGCAAACTTGCCAGATCTTAGAATATTGGTGCAATATTGCAATGCCTTCTATATGGCTGCTGATGTATAAAT  
TTTCTAGTTTCACTTTGTTTGGTGTGTTTTTGTGTTTTTGTGTTTGTGTTTTTGTGCTGCTGCCACCATTGA  
ACATAAAATGGAAGTGTGAAGTCATGGAATGTGAAGACTTTGGTTTTTGGGGGTTTTTGGGCAGTTATTAGAC  
ATACTATGAGATTAAACCTGATCTTCAAACTCCAGAATTGGAGGCATTTGGGTTTAAAGAAACCAGGTACATAAGT  
AGCTTTTGAAGAAACCATTTGGCATTGATTTCAAAAATCAATAATAATCTTATTTTATATATGAGACTTATATTT  
CATTAACTAGTCCTGTCACTTACTTACAGTTTCCAAACATGAAATTTGGTATCTTGTTTCCCATGGTAATATGGG  
TAAAAGTCTTTTTCTACATTTAAAAAATACATTATTTTATTTTTGAAAGTTAGGAATAAGTTAGCCATTTAATTT

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**FIGURE 1324B**

TTTTCTACATTAGTTTGTGGCTTTGTATGTGTGCTATTTTGCTTTAAAGAAAATAACGTCTTCATTATTTTCCT  
CATTGATGTCTTTTGCTAGAAAAGACCAAGAAAGAGCCATCAGGCCAGGTATCCACATCAAAGCCTTTACACTAT  
AGTGGTGGTTCTCTTTAATTGCTTAGATATGACTTCATGACCCTAGTCAGGGTGACATCTGGGCAAACATTTGAG  
TATTCTTGGTCTTCCATTTTAAAGACAGAGGCCAAGATCAAAGTTCATGTTTTGTAAAATTCGTAAAATCTTAAC  
TTGAACTAACTCTGGGTTTACGTTTACGTAAGTCACGTCGGACCTGATGTTAGCTGTAATCAGTTTTGAGCTTTA  
AGGATAGTTGCTGTTGCTTGGGTTCTGAATGTATGAGAAAACCTCCCTGTTTATATGTAGTTCTAATTTAGGTTAT  
TTTAAATCCATGATTAACCTTACATTCCTTTTAAAATTATGGTTTTATTGCTGCAAGAGATTTATTTTGTATATA  
CTAAACTATGGAAGTTTTTTCATAGCATTTTTTCAAGTTTATTTTTTGTGTGCTTCATTTGGAGTTTTGT  
ATATACATTGCGCTCAAAAAGTAGTTTTTTGAAAAATTCAGTAAGATTGAATCTATACAGTTTAACTGTTATG  
ACCTTTATGCGTGTTGTTTTTCACTTTATATCTCAAATGCCAGAGTTCACAAAAATAGCTGATCTTCATTAATTAC  
ATCTTAATTAGAACCATTTGTTCTCTTCCGTGTCTTTGACCTTCTAAGTTTTGATTTTTAAAGAAATTCCTTGCAC  
TACAGCCTTTTCTTAAATGCAAGATTCTCACTTTGAAGGTTTTGTGTTGGAAGAAATGCTACTGGTTTTTAAAA  
AGCAAAGCTTAACTAATAGAATTATTAGCTTTTCTTGAGACAGCTTTCTGTGTCCTCATTACTCTGCTCTGTGTG  
AGTGTTACTAGAATTTGTGAAATACTGACTGAGCCCTTCACTTATCTTTTCTAAAGCAGCACCTTTGGACACCTC  
ATTCTGGGAAGCCTGCTCGAGTCATAGTAAAGGACACACGCTTTATGTGGGGAGAAGTGGTAAAAATGGAGTTTT  
GTCTTAATTACATGAACTAAGCTTTAAAATATTTTATAACAGATTATTTGAGCTGCATAATCTAAACATGTCAA  
ACGTTTCAGTGGGACTATTTTTATATATGTATATGTGGGTGTAGGTCATAACATTTTCAGTTTATAATATAAATTGT  
TATTTTCAGTTTATAAGCTATCTCTCAGAGGAGACTAGCTCTTTTGAGAATTCATAATTTAAAGTTTACTGAA  
GTAAATGCAACATAGATAATAGTGAAATCAGATATAATTGAGGGCTATATGGCAGTAAACTGCTAGTGCCAG  
TTTTCTTGTGCTGTTATACATTTTTGATTTTTGTTTTTGTATTCTGAACATTTTGAGAGATCATATGTTTGT  
TCAATTACATTTAGAGTTGGTTTGGGAATAAATATCTTCTAAAAGAGATTTATCTTAAAAATGGAAGTCCTAAA  
AATTAGTTTATCCAGAGTTTATAAAGTCAAAATATTCAGTAGGCATAGACTGGAATAGATAAATTCATGGAAATCA  
TATCCTTTTCAGTACACCGTATAACTTCAATATTACACAAGTAACATTGAGGAGAATGCCATCAGCTTTGTTCTCC  
CTTAAATTCCTTTGGTTTTCTTTTTACATTTTGGGAACAACGCAATTTAAATGTTATTAGTCAGTATATAGTAAG  
GATTAGGTGTTTGTCTTCTGAAGGAATGGTCCAGTGAGGTGATTGGGAGAGGTTATTTTCTACCTAACTTGTATA  
TGCCCTATACCTCTTGGGCATACCTTGTCTATAGAAAAATATTTTGACCTTTAGGTACATTTTGGGCCAGTAGTC  
AAATAATCCTAGGGCCGATATAAAAAATCTTAGAATAATTTAAGGTTTGCTTTTATACCTGTTTTGAAAGCCTTT  
ACATTTTTGTCAGGTAATTTTTCCCAAGCCGTGGATATAATCTATTCAAACATGTTTATGCTATCCATTCTGTTT  
TTAAATTGAAAAAATGTTAAAGTGTTTATGAAGAAAAGTTTAAATAAAATATTTTAAATCTTT

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**FIGURE 1325A**

GCTCATTGTTGGGGGCATGAATGTTCTCCTTACTAACCTCTCATGGAGTCATGTGATAACAGCCATGTCATGTGTAT  
GGATGCCACCATTCCTGAATTTCTGCTAGAAATAAGTAGGTTGCTATGCACTTAGAGTCATCTTTGCAAGGGACT  
CATTCCAAACCAATTCCAATCGACCTGAAAGTCCCTTGCACTAAAGAAATGTGATTTTTTTTTTAACCCAAGGAGA  
AAGTTGGTTGTAACAATTTTACCAGAATTAGCAATCTGATAGAATAGGCTTTTTTAACAGGAATTTTAACTG  
GCGGTGCCAGTTGCAGTGAAGGTGAAGTGGCTATTGCTTTATNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN  
NNNNNNNCTGAAGATAGAGCGTTGAACAAACCCAATGGTCTTGGCCCTCAAAAAGCTTTATGTGACATAGAGCA  
TCCAGCTCGACAATTAGCAAACCCCTGATATTATTCATGGACTTGACATGAGGTTTGGACTATTTCATGAGCAACA  
GCAGAAGGTCCATGACCCCTACAAATTTACATTTTTCTATGGCCCATATTTGAAAACCTCACATTCGGAGCAGGC  
CACTTTATATTTCGTGAGTGATCCCAAGCTCACTGACCAACAGAAAAGATGCTAAAAAATGTGTCTATCATGTG  
CCTGCTCCAACCTGATGGGTAATGTCTGCCTTTAAGCCCCAGAAATGGATTCTCCAGGCACAGTGTGGAAGAGTGCT  
GTGGTTGATTAGCAATGTCTGCCTTGGGTGAGGAAAGGGGAACACTCCTCAAGTGCCTCCTACTGTCTATCTCCAT  
TCAGCCTAGCACCACATCCCCATGTAGAAGTGTTGTCTTCTACTGCTTGCCACGTACAAGTGTGAAATGCCAAGG  
TGAGACTCGTACACTTGGGGATTTGCAATGGTTTTTACCCCTCATGAAGGTCAGAGGTGGACTATTTGTACACAT  
ACACACATGCACACCCTCTCACGTCTCCAGAGGCTGAAAGACCATCAGCATCTTGTTAACTGCCATGCATGAGC  
AGCAAGGACAGCCTTCATAATCCATGCCCCATTTCTCTGGAAGCCTGGAACTTTTCATTTCTGTTCTTCTG  
TAATTAACATCTAAACATGCTTCTCATTTCAGCCATTGCTGATGCTTCTCAGTTGAAGTTTGTAGCCACATCCCT  
CTTACAGCTAGTGAATGAGTTGGTAGCAGATACTGTATNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNAGGGGAGGGTG  
GGATGGGGTGTTGGGTAAGTTTTGCCTTTTGTGTTTTGTTTGTATGCCGTATATAGTGAAGGGGTGAGGATATTCTA  
AACAAACAAAAATTGAATAATTTATTCACAGAACTATTAAGATTGTATTGTAAAGCTCACAGCAAGCTCAGTGG  
GCAGCAGCTGCAACATCTCACCGGGGAAATTATTTATTTAACGTGAGTGAGATGTGGGCCGGAGAAGGTAGCTG  
AAGCTATTTATAAACGTTGTGTACCTTCTTCCAGCTCTCTCCCTTTGTGAAGGGCGCAGCAACTATACCCTT  
GATGGATGGAGATTTATGCAATGTGTTTTACTGGGTAGAGTGACAGACCTTGGCTGTCCCTGGAATTGAGAATCT  
GGACCTTATTTCCAGGCAGAGAACACTGTCTCAGAAATGGGACTTCTGATAATGAAACAGGTTGTCCAACATTT  
TCTAATACGCATTCTACAGAACACAGGTTCCAGGAGGCATCAGGTTGGTGTGATGCAGACTAAGGGTTTTGTGGT  
CAAATATCCTTAAGAAACAAAGTTAAGTCAGTTTCTTTCTGCAAGGACTTTTCAGCCTTCAATGTGTGCTGTGC  
ATGGTGAATCCCCAAAAATAATCCTTGAGTCTGTAGCATTTCTGAACTTACATGACCAGGATACTCTATTTTGC  
AGATCACCCACAGAGCTAGGGTTCCACCGAGTATACTTTGCTTAGGTTGACTTAGCATATCTGAGGTCTTCAAG  
GATAAAACTGCCACCCCAACACCCTTCCATTAAAAAATAACAAAATAGCACCACAGTCTCCATCTGGTTT  
ATAGCAACAGAGGTACTTTATTTAATGAAGCAATGGTTCTAATCCTGGATACTGCCACGGACTACAATTCTATCC  
CTCCAGAGGGAGTGGAGGAAGTCTTGGGTGGTGTGGACAGAAGGAAGAGAGGAGAGGGTGAGTGGGGTATAGGG  
CCCAGGGTGGCTCCCTACTCCTCAGGCTCAAAAGGATGCTCAGTGGGAACAGATGATCTCTTGATGAGTGCTTCT  
TCAGTTTCATAGTTTGGAACTGTTCACTGTGTGCTTTTGGGGGGTTTTCAATGGAAATTCAGTTGCTTTGCA  
TTCTGTGTCCGTCTTTGGTCAGTTGTGCAAGCCTGCTCACTGTGATGTAAGATGGCCTTTTCATCTGGCTTCTCT  
CTCTTAAGTGAGAAAGATTGTCTTCAGGGGACATGACATCAATAGGTTTCTGGAATGAGGGACTCTTTCTCCCC  
GTGTTTTGCTTTGTGTTACATTTTCTTTTCTAATGGCATTGAACTTTAAAAAATGGATTCAACTGTTTTTG  
CAGAATGTAGAAAGTATTCTGTGTCCTTGGTTAAAGAAATCCACTTGTGAAGTGTGCCTGGAAAATGAAAGTTG  
TGTTTTTTAAAGAGGAATATTTGAAACTGCTTTCTATGCTAGCTGGAGAAAAGTACAGGCAGGCGTCCCA  
TCTCCCAGCCACTTCTCAAAGGTGCTGCTGTGTTTTAAAGACCAGGTACAGCCAGGGCAGTATTTGCAAGGACAT  
TCCTGCTTACTTTATCCCTTTGGTTGGAAAGCTCTAGATGATTCCCGCAGCTCCTCCAGACCCCGCCTCCCTGCC  
CTCCCCAGCTGGTCTGGGAAGAGGTGGTCTGCTGACCTGTGGTATCTCAGAGGGGACGTTCTCTCTCTCTCTGT  
GCACCAGGTGGGCTGCACCCCTCTGCCTATTTCAGGATGTGGATGCCACAGGAGAGCAGCAGGCAGTGGAACTTC  
AGTTGCACTGGTTCTCTGGTGGCAAAGGCATGAAGCACAGGGGTGATTAATCCAGGCTACTAGAAAGCTCCAG  
AGCAAAGTGTGCGGTCCCACAAATGCTTGGCTGGTGGGGTCTGGATCAGTGCTGAGATAGAGTTGGCAGAAGAA  
GCAGAGGCACTCTGCTTGCTTTCCTAGCCAGTCTCTCCCTAACAACACAACAACAACAACAATCTCAGCT  
GCGCCATTCTGTGCAATCCAGTGACCAAATCCCTTCTTGCCACCTCTATGTGAGCAGGACTGACCACATCAC  
TCCCCGAGTTCACCACCAGCATTCTCTCAACCTTTTCCATCACAACCAGTTAGAACCCTACAGGCAACAA  
GGCCTTCTAGAAATCCGCTTAACCCTTGGCTGATAACAGGCAAATTTAGTCTGCTACACTTTGTTAGGTCCAGAA  
GGAGCTGCCCATACTACTTTCTTATGAGCATGCTCAGTATGGCATATGGACATGTAATGTCACATCTTTGTGGAG



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**FIGURE 1325B**

TGTGATTTTCTTTTTTTTACATATTTGTATGCAGTAGAGAGCCTGTTGTAGAAAACGCTCCCTGTATCTTGCTGTA  
CTGTTAAAGAAAGCTGAATTCCACATTGCCAACAAAAGCGTGAAAATGTTTCATGAACCTTCCTCCAGGAAAAGCC  
ATTCAAGCCTGATTATTTTCTAAGTAACTTCAATTAAATTGAAGAAAAAAGAG

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**FIGURE 1326**

MLSWRKVQAGVPSPSHF~~SKVLLCFKDQVQPGQYLQGHSCLLYPFGWKALDDSRSSSRPRLPALPSW~~SGKRWSADL  
WYLRGDVPPPPCAPGGLHPPAYSGCGCHRRRAAGSGNFSCTGSPGGKGMKHRGRLIQATRKLQSKVCGSHKCLAGG  
VWISAEIELAEEAEALCLLS

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**FIGURE 1327**

CTGGCTCAGTCATTCCCCACTTAGCCTCCCAAGTGTTGGGATTATAAGCGTGAGCACCATGCCTGGCCCCAATTT  
AAAATGTGGAATTCAGTTGGTGTCCAAGACTTATCTTGAGACTCTTAAAAGCATCAGTCTGTAAGTCTAGAACAAAT  
ACAGTCTTAGATTTACCCAAGTGCCTAGATATCATTTTATAATGATTAGAATTGAGTATTGTGGGTCCCCTAATT  
CTGTGGGTGCCTTAAGTGAGAATTTCTAAATGATTTTCACATTCTAAATGACTTTGGGTTTTGAAGTCTCCATCT  
AGTTTACTTCTAAAATGGGAAGTTGAGGCAATTCAGGTATCCAGGCAAATCTTTGTATATATTTTTTTGTGTACA  
TGCACACATCTCGAAATCCATTTCCGTGTTTAAATGTTAGTTGTTTATGTGTTAGTATTCCCTGTGTCTACTGTTTT  
GTTGTTGTTAATATGGGTAAAGTGAGCCCTGAAATACATGCTAAACAAGACATGAAATGCAGAAAGGTACATAGT  
GTTTCAAGTGCATGGTAGTTTGATCTGTGTTTTACTTTATTGTGTTTTCTTGAGTGTAAGAAAGAATAAATCAA  
AGTTCTTCATACCCATTTTGACAAAGTGGAAACAGTGGAGCTGTTTTTGGCTTTTGTTTTATTTATTTTTTGCCA  
CTGGTGATGATAGATTTCAAAAAACAAAAGGTGGCAGCAGCACAAATGTTTCATGGTGAATTATCTCATAGTATCTA  
GATTGATCAAGATCTGACAGAAGGAATGCACAAAGGATTCTATATTCTTAATGATTTATTAATTACCAGGATCCT  
TTTCTAAATTGAATGTACTTTTGAATTACTAGGTTTCTTCTTTTTTTTTGTTCTGCAATAGTGAAAGAAAAGTCA  
GTAGTTTAGTTTCAAGTTTCTCATGGAAATTGGTAAATGTTAGTTTGTAGTTTCTATCTATTTTTTATTTGTTTTAT  
TAGCGTAGAGTAGGAAGTCTCATATTCTACTGTTCTATCTAGGATGGTGAATTCCAAAGGTGCCTAAGTGTAGT  
AAGGGATTGTGACAAGATAGTACACATTACTATAAGGGCTATTATTTCTGAAGTGGATGTCCTTAAAGCAAA  
TAAAGTGGCCACTATCTCTACTCTAGTGTCTCTTTGTCTTATCAACATATACCTCCAATAAGTAATTACATAA  
TTCACCGTTAAACATGGACCCACTCTAGGTAAAATTACCCTCATGGAAACATTTTCACTGTGAGAATGATGAATT  
TAAAAATTATGTTTGAATCACCTAAAATGTATGTGCAGCTTCTAGATGGCCCTTAGATCTGCTGGGCTCTAGCT  
GTGTACTTTAAAAAAACAAAACAGCTTTATTGATATATAATTTACATATTATGTAATTTACCCACTTTTAAGTA  
TCTAATTCAGTGNN  
NN  
GGATAATTACAGCAGGTTATGTTTGGTTTTCATTTTTAAGAGTGGAGGTGTTTCATGATTCTAAGCTCAGGAATCTT  
GTGATCATGTATTAAATATGTTATCTCATACTATAATGATAAAAAAGCTTAATGATGTGGGTTGGGATGGATATT  
AACATAAATAATTGAGTCCGCTGCTTCTATAGCAATGCTGTAGGATAGAACAATAATGTAAGTGATATATGTAAT  
TAAAAAATCTAGAAGCCACATTAAAAATAAAATAAACAGCTGAAGTTAATTTAATATTTTATTTAACTCCAC  
TACATCCAAAATGTTATCATTTTTAACATGTAATTGATGTAAAGATTTATTCTGATAGTTTGTACTATTTCTTGTA  
CTAATTTTTTGAAATCTGGTATGCATTTTACAAATTTGGGCAAGCCACATTTAAGTGCTCATTAGCCACATGAG  
GCCAGTGGATACTGTATTGAATAGCACAGTCTTATAGCATATTTATTAATTTGTCTTGTAGTAAGATGAAATAGA  
CAATAATACGGAATAATATCTTAAATGGAAATCTTTGTAGTCTCTAGAGCCTTCATTGCTTGATAAATAGGACA  
TCTAAACTTTAGATATAAATCAGTTGTCAATGAGATAAAATATTGCCAGCAAATATTTTCCTTCAAAGATAAGT  
AACTTTTGATATGGCAGTTGGTGAATGAAAGAATATAATCTGCCTTCTTGTTAAATGGTTGACTATTCTGTAGC  
TTGTAGGTAGTACGTATTAGAACTTGTGTATGTGGGAAATATTTGGCATAATACTGTTTTCACTATATAGTAGC  
TATTTTTTAAGGAAATTAGTTTCATACAAGAAAAAGATTATTATAAAAGTGATACTTTTGCATGAAATATTAGTT  
TGTGTTGATAACTCTTAGTTAACCCTTAAAGTTTAAACAGTACTCAAAAAAATAATGAGAATCTAGTATTCT  
GTAGTTAACTAATCTATAAGATAAATTGCTAAAGTACTAGGGAGCTTGTAATCTTAAAAATCTTTTTATTTTCAG  
TGTTCAATTCAGGTTGGATATATTTGAAATTGTAGATTTCTATCTGTACAACATCTCCTAGTTAATAGAATTTTTT  
TCCTTCCCCCTCCCTTCT  
TAATATCTCAAGCTAAAAAAGTATGTAATTGAGGTTGTATCTGGAGAAGATGGGAAAACATTGTATAATTTAAGC  
CCTTAATTGTCTGTTGAGCTTTTAGGGCTGAGTAATTGCCTTTTACATACAAATAAAAGCTTTAACTCTTTTCTCAA  
GAGTGTACCACCGTCTTAGAATCAGGTGTTTTAAATCCAGTTTCTTTTAAATTAATGGGACTGTAGTGATCCCT  
ACCCTGTAGAGAAATCAACAGAAGTATAGAGAAGCTAAGGGCTTGATCAGGTTTCCCCTAGAACCCTGTGTTGCCTGC  
CTGCTGTATCTTCCATGTCTTTCTTATTCAACTTCTAGAAGTAGAGAAGGTTGGGACTTGAGTGTAGAAGAAACA  
TCAGAATAATTTCAAAAAACAGGAAGTTGGAAGTATAATTTTAAATTATTGTATTGTTTTTACGGATTTTACAT  
GTATAGTTAAATATTAAATTCATCTCTTGCAGTTCAATAAAAGCTATAGTATAGATTTTATTTTAAAGAGTTT  
ATATAATTCTTTTGTGAACCAATATGTAAACTAGAATATTTATTAACCTAATAATATGTATTAGTATCAATAAA  
ATATGTATTATTTTTTAAATTTGGTATGAAACAAAATAAAATTTGTAGACACTCTTAAATTTGGTCATTGATATT  
ATCTTTGTAATTTAACATTAAGTACTATTTAGTGTATATGCCTGAATTTAAAGGATGGAATTTAACCTCCCGGA  
ATCTTACCAAAGGGGAATTTTAACCCGGGA

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**FIGURE 1328**

WLSHSPLSLPSVGII SVSTMPGPNLKCGIQLVSKTYLETLSISL

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**FIGURE 1329**

CGCTGGCGTTCCGCGCACGCCGGCTCACTGCGCCTGCCCCGGCGTGTGGACGCACACGCTCCCGGAAGTGGGAGGT  
GGCCGCTGGAGTTTGTGTGGCCGCCGCCGCGGGAACGCGAGCCCGGTAATTTTTCAACGGAGAAAGGCGAGGCTT  
TCGGGCTCTGCAGAGTGAGAGTTAGCAAGTGTCCGGCTCCAGCAACTCTCCTCTGGCGTGACAGCCGGCATGGAG  
GATCCACAGAGTAAAGAGCCTGCCGCGGAGGCCGTGGCTCCCGCGCTGCTGGAGTCGCCGCGGCCGGAGGGCGGG  
GAGGAGCCGCCGCTCCAGTCCCGAGGAACTCAACAGTGTAATTTGATGGCCAGGAGACAAAAGGATCCAAG  
TTCATTACCTCCAGTGCGAGTGACTTCAGTGACCCGGTTTACAAAGAGATTGCCATTACGAATGGCTGTATTAAT  
AGAATGAGTAAGGAAGAACTCAGAGCTAAGCTTTCAGAATTCAAGCTTGAACTAGAGGAGTAAAGGATGTTCTA  
AAGAAGAGACTGAAAACTATTATAAGAAGCAGAAGCTGATAGCTGAAAGAGAGCAATTTTGCTGACAGTTATTA  
TGACTACATTTGTATTATTGACTTTGAAGCCACTTGTGAAGAAGGAAACCCACCGGAGTTTGTACATGAAATAAT  
TGAATTTCCGGTTGTATACTGAATACGCATACTTTAGAAATAGAAGACACGTTTCAGCAGTATGTAAGACCAGA  
GATTAACACACAGCTGTCTGATTTCTGCATCAGTCTAACTGGAATTACTCAGGATCAGGTAGACAGAGCTGATAC  
CTTCCCTCAGGTACTAAAAAAGTAATTGACTGATGAAATTGAAGGAATTAGGAACAAAGTATAAATACTCACT  
TTTAACAGATGGTTCTTGGGATATGAGTAAGTTCTTGAACATTCACTGTCAACTCAGCAGGCTCAAATACCCCTCC  
TTTTGCGAAAAAGTGGATCAATATTCGGAAGTCATATGGAAATTTTACAAGGTTCTTAGAAGCCAAACCAAACCT  
GACAATAATGCTTGAAAAATTAGGAATGGATTATGATGGGCGGCCTCACTGTGGTCTTGATGACTCTAAGAATAT  
CGCCCGAATAGCAGTTTGAATGCTTCAGGATGGGTGTGAACTCCGAATCAACGAGAAAAATGCATGCAGGACAGCT  
AATGAGTGTGTCCTCTTCCCTTACCAATAGAGGGCACTCCACCACCACAAATGCCACATTTTAGAAAGTAAACAACA  
GTTTTGTGTGTGGATCATTCCAATTGAAGTTGCTATGAAGAGGGAGAAGTTTCTGCCTTGGAATTGAAACAAAAAA  
ACACAGGCGTCACAAGCATGTTACCTATTAAGAGAGAGAGGGTATCTCTGAAGACTAATTAATAATGGTAATTTTT  
AAAAAGATGTGACCAGTTGACTTTTAGTATATCATCCCAAGTATTATCCCCAAAATGATAATGCAAAACAGAATA  
ATTTGGAGACCAGGAGAAAACTGGTATGATTACTGGGGAGGGGAAGAAGCACAGGTGGTCAAGATAATAATGCA  
TGTTTGGCCTCAGCTGTAGTTGCCAAAGAACTACCTGCCTCACAGATGAGCACGCACGGGTGCATTGTCAAAGT  
CTGAGAAGGATGTATTGTACTTTGAAGGAAGACTTTCCATTCTAAGCTACCATGGAGAAGTATATGCTCCTCGA  
GACCAGAGACTGTGACTTCTGCATCTTTGATTCCAGCGACATATGATAAAATGTTTTGCACATAGTTGAATCCAG  
CGTTGATACATGAAGGACAGCATTACATCTTTTTTTCTATTATACCTTAGAAATTTCTCTTTGTTCTGCACCACC  
AACCTGTATATCAAGCCTCCTTGCCCCACAAAGCTTCCAAAGCCCGTAAATTTGTTAATCTAGAGCAGGGGTCAG  
CAAACCTACCACCCATGGGCCAAATCTGGCCTGCTGCCTATTTTTGTATGGCCTACAACTATGGTTTTTATATTC  
CCTTTTGTTAATGGCTCAAAATAATTTTTGTATAATATGAAAATTACGAAATTTTAGTTTCTCTAAATAAAGTT  
TTGGAAAGAAAAAA

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**FIGURE 1330**

MKLKELGTYKYSLTDSWMSKFLNIQCQLSRLKYPPFAKKWINIRKSYGNFYKVPRSQTKLTIMLEKLGMDY  
DGRPHCGLDDSKNIARIAVRMLQDGCELRINEKMHAGQLMSVSSSLPIEGTPPPQMPHFRK

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**FIGURE 1331**

[illegible]

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**FIGURE 1332A**

GGCGGAGCCGCTCGGACGATAAGGAAATTGAGATTTGGAGAAGTTAAATAACCAAGACTTCACAGACAAAGTCT  
CACTCCTTTTGGCCAGGCCGGTGTGCATTGGGGTAATCTCGGCTGACTGCAACCTCCGTCCCCTCCGAGTTCAAG  
TGATTCTCCTGCCTCAACCTCCCGAGTAGCTGGGATTACAGGCAAAGCC**ATG**ACTACAGTAGTGGTACATGTGGA  
CTCCAAAGCTGAGCTCACTACCCTGCTGGAGCAGTGGGAAAAGGAACATGGCAGTGGGCAGGACATGGTACCTAT  
CCTTACCAGGATGTCTCAATTGATTGAAAAAGAACTGAAGAGTATCGTAAAGGGGATCCAGACCCATTTGATGA  
TCGACATCCTGGTCGAGCTGATCCAGAGTGTATGCTGGGCCACTTGCTGAGAATACTCTTCAAGAATGATGATTT  
CATGAATGCACTGGTGAATGCATATGTGATGACAAGCCGAGAGCCCCCTTTAAACACTGCAGCTTGACAGACTCCT  
ATTAGACATCATGCCAGGGCTGGAACTGCTGTCTGCTTTCAAGAAAAGGAGGGAATTGTGAGAATCTTTTCAA  
ATGGGCCCCGAGAGGCCGATCAACCATTGAGGACATATTCTACTGGACTGTTAGGAGGTGCTATGGAAAATCAAGA  
CATTGCTGCCAACTATAGAGATGAAAATTCACAGCTGGTGGCAATAGTGCTTCGAAGACTGAGGGAGCTACAGCT  
ACAGGAAGTGGCTTTGCGGCAGGAAAACAAGCGTCCCAGTCCACGGAAGCTCTCTTCTGAACCCCTTTTGCTCT  
GGATGAGGAGGCTGTGGATATGGACTATGGTGACATGGCTGTAGATGATGCTGAAATTCAGAAGTCAGCACTTCA  
GATTATCATCAATTGTGTGTGTGGCCAGATAACCGAATATCCAGTATTGGTAAATTTATCTCTGGTACTCCTCG  
GAGAAAGCTGCCTCAGAACCCTAAAAGCAGTGAGCACACCCTGGCCAAGATGTGGAATGTGGTTTCAGTCCAACAA  
CGGCATCAAGGTGCTCCTGTCTTACTGTCCATTAAGATGCCCATCACAGATGCAGACCAATCCGGGGCCCTGGC  
CTGCAAAGCCCTAGTGGGCCTGTCTCGCAGTAGCACTGTCCGGCAGATCATCAGTAAACTGCCCCCTTTTCAGCAG  
CTGCCAGATCCAGCAGCTGATGAAGGAGCCTGTGCTGCAGGACAAGCGCAGTGACCATGTCAAGTTCTGCAAGTA  
TGCTGTGAACTCATTGAACGGGTGTGAGGAAAACCACTTCTCATTGGCACTGATGTTTCCCTAGCACGACTGCA  
GAAAGCAGATGTTGTTGCCAGTCAAGGATCTCCTTCCCTGAGAAAGAGCTGCTTTTGTGATACGAAACCATCT  
TATTTCTAAAGGGCTTGAGAAACAGCAACCGTGCTGACAAAAGAGGCTGACCTGCCCATGACTGCTGCCTCCCA  
TTCTTCTGCCTTTACCCAGTCACTGCTGCTGCTTCTCCTGTCTCTTACCCGAACCCCTCGTATCGCTAATGG  
CATTGCAACTCGTCTGGGCAGCCATGCTGCTGTGGGTGCCTCTGCGCCTTCTGCCCCTACTGCTCATCCTCAGCC  
ACGGCCCCCCCCAGGGTCCGCTAGCTCTGCCCCGCCATCTTATGCAGGCAACTCCCCTTTGATTGGTAGAATCAG  
TTTTATCAGAGAGAGGCCATCACCCCTGCAATGGCAGGAAAATCAGAGTGTGCGGCAGAAGTCGGACCATGGTGC  
CTACAGCCAAAGCCCAGCCATAAAAAACAGCTGGACAGACATCTTCTTCCCCACCTACGCTGGACAGTATAAT  
CACAGAGTATCTTAGAGAACAACATGCTCGCTGCAAGAATCCAGTTGCCACCTGCCACCTTTCTCCCTCTTTAC  
TCCTCACCAATGTCTGAGCCAAAACAGAGGCGGCAAGCGCCAATAAACTTTACGTCAAGGCTAAACCGCAGGGC  
ATCATTTCCAAAGTATGGAGGGGTGGATGGCGGATGCTTTGATAGGCACCTTATCTTTAGCAGATTCCGTCCTAT  
TTCAGTGTTCGGGAAGCCAATGAAGATGAGAGTGGCTTACCTGCTGTGCATTCTCAGCACGGGAGCGGTTCTCT  
GATGCTTGGCACCTGCACAGGGCAGCTGAAGCTCTATAATGTGTTTAGTGACAGGAGGAGGCCAGCTATAACTG  
TCACAACTCAGCCATCACACATCTTGAACCTTCCAGGGATGGGTCTTGTGCTGACATCTGCTACTTGGAGCCA  
GCCTTTGTCTGCATTTGGGGAATGAAGTCAGTATTTGATATGAAGCATTCTTCACAGAAGATCACTATGTTGA  
GTTCAAGTAAAGCACTCCCAGGATCGGGTCATCGGCACAAAAGGAGACATTGCCACATTTATGATATTCAGACTGG  
CAACAAGCTGTTGACTCTGTTTAAACCCAGATCTTGCCAACAACCTACAAGAGGAACGTGTGCCACCTTTAATCCTAC  
AGATGATCTTGTCTTAAATGATGGCGTCTCTGGGATGTCCGCTCTGCACAGGCCATCCACAAGTTTGACAAGTT  
CAATATGAACATCAGTGGTGTCTTCCATCCAAATGGACTGGAGGTGATCATTAACTAGAGATTGGGACCTTCG  
AACTTTTCATCTTTTGCTACTGTTCCCGCTCTGGATCAGTGTGCGGTGGTGTTCATCACACGGGAACAGTGAT  
GTATGGAGCTATGTTGCAGGCAGATGATGAAGATGACTTAATGGAAGAGAGGATGAAAAGCCCCCTTTGGGTCATC  
CTTCCGAACATTTAATGCAACTGACTACAAACCTATAGCAACCATTGATGTGAAACGGAACATCTTTGACCTGTG  
TACAGACACCAAAGACTGCTATCTTGTGTCATTGAGAATCAAGGCAGCATGGATGCCCTGAACATGGACACAGT  
ATGCAGGCTGTATGAAGTGGGCAGGCAGCGTCTGGCAGAGGATGAGGATGAAGAGGAGGACCAGGAAGAGGAAGA  
ACAGGAGGAAGAAGATGATGATGAAGATGATGATGACACCGATGATTTAGATGAGCTTGACACTGACCAGTTGCT  
GGAGGCGGAGTTGGAGGAGGACGACAATAATGAGAACGAGGGGAAGATGGGGACAATGACTTCTCTCCCTCTGA  
TGAGGAGCTAGCAAACCTTCTAGAGGAGGGAGAGGACGGGGAGGATGAAGACTCTGATGCAGATGAGGAGGTGGA  
ACTGATCCTGGGGGACACTGACAGCTCTGACAACCTCTGATTTGGAAGATGACATCATCTTATCTCTGAATGAG**TG**  
**AGG**AGCCATCACTGCTTGGAAAGAGATTCTTGGCAGGCGAGAACTGAGTCAAATGAATTCAGAACATATTCCCTT  
CTCTTTCTCCCAGGGCTGTCTGTCTTTTAAAGGAGCTGCATGCCCTGCATTGAGAAGATTATGGCTTAGAGAGCCT  
CATTGGCACCCGAGGGTCTTCCAGAATCAATAACCACCACAAAATGACAACAGGGACTAGGCCCTACTCTGCA



**FIGURE 1332B**

CCCCCACATCCACCCCCACCATTTCCTAGGATGGACATATCTTTCAAGGGGAAAAAAAAACCATGTCTCTGGG  
GTATTTCACAATATATTTTCTTTGTATAGTGTTCTTTACTTAAAGAACAAGAAATAGTTTTTTATAAACTTTAA  
AAAGGAAAAAAAAACAGGCATTTATAACTGAGGGTATGAACTTATATCCACCAGGTCTCTTGTCCTGCACTTCA  
TTTTCTTTGGAAGAAAATGATGTCTAAAGAACAATATAGAGGCATTTTACATACGTATTTAAATGAAAAGGAAA  
ATCGTGGTTTTCTTAAATTGATAAGGATTAAGAATATTTTATTATAAATATAATATATGATTTTTTAACCTGTTTT  
GTTGCCTCATATGCTGTCAGGTTAATTTGTTTTCTTCGTGCCAGAGGTGGGGAGGAAGGCACTCTGTCTGCTGG  
GTAAATGCCTAAATTCACTCACCTTCATGGTTTTGGGGCAGCATGGTCATTGTGGATATTGGTTTTGTGGAGTTG  
AGGGAACCTTAGGATATAAGTTCACTCCCTCTATTTTTCTTTGTGATTGATTTTTTCAAAAATCTTTTTTTCTTCC  
CTTTCTCCCCATTGTGGAATTACAAATCAAAGGCCTTTTTCTTTAATGTAAAGTGATTTATTTAAAAAAAATA  
CAAAATAAACTACAAGTCTGTCTTTGTTAA  
AAAAAA

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**FIGURE 1333**

MTTVVVHVDSKAELTTLLEQWEKEHSGQDMVPILTRMSQLIEKETEEYRKGDPPDFDDRHPGRADPECMLGHLL  
RILFKNDDFMNALVNAYVMTSREPPLNNTAACRLLLDIMPGLTAVVFQEKEGIVENLFWAREADQPLRTYSTGL  
LGGAMENQDIAANYRDENSQLVAIVLRRLRELQLQEVALRQENKRPSPRKLSSEPLLPLDEEAVDMDYGDMAVDD  
AEIQKSALQIIINCVCQPDNRISIGKFISGTPRRKLPQNPKSSEHTLAKMWNVVQSNNGIKVLLSLLSIKMPIT  
DADQIRALACKALVGLSRSSSTVRQIIISKLPLFSSCQIQQLMKEPVLQDKRSDHVKFCKYAAELIERVSGKPLLIG  
TDVSLARLQKADVVAQSRISFPEKELLLLIRNHLISKGLGETATVLTKEADLPMTAASHSSAFTPVTAASPVS  
LPRTPRIANGIATRLGSHAAVGASAPSAPTAPQPRPPQGPLALPGPSYAGNSPLIGRISFIRERPPSPCNGRKIRV  
LRQKSDHGAYSQSPAIAKKQLDRHLPSPPTLDSIIITEYLREQHARCKNPVATCPPFSLFTHQCPEPKQRRQAPIN  
FTSRLNRRASFPHYGGVDGGCFDRHLIFSRFRPISVFREANEDESFTCCAFSARERFLMLGTCTGQLKLYNVFS  
GQEEASYNCHNSAITHLEPSRDGSLLLTSATWSQPLSALWGMKSVFDMKHSFTEDHYVEFSKHSQDRVIGTKGDI  
AHIYDIQTGNKLLTLFNPDLANNYKRNCATFNPTDDLVLNDGVLWDVRSQAIAHKFDKFNMNISGVFHPNGLEVI  
INTEIWDLRFTFLLHTVPALDQCRVVFNHTGTVMYGAMLQADDEDDLMEERMKSPFGSSFRFTFNATDYKPIATID  
VKRNIFDLCTDTKDCYLAVIENQGSMDALNMDTVCRLYEVGRQLAEDEDEEEDQEEEEQEEEDDDDDDDTDDL  
DELDTDQLLEAELEEDDNNENAGEDGDNDFPSDEELANLLEEGEDGEDEDSDADEEVELILGDTDSSDNDLED  
DIIISLNE

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**FIGURE 1334**

CACACACACACACACGCCAGGAGCAAGGGAGCTTTCGGGGCCACACTCCCAGACGCCTCCCTGAGCCCTGGAACCC  
GGACTCGTTGCTCCTGGCCTTCCATACAACATACGAGCACATCCTGCGGTCCCACCCAGATCCCCCTCCTCCTCG  
CCATCCCATTCTGCCCCCTCCCCACCCTGGGTACAGAAAGGGACTGAAAGTGTGGGCAGAGAGGGGGCTTAAGGC  
CCCTGGGCACAGGCTGGGATCAGGGCAGT**TGAG**CGAAGGGCAGCTGTGTCTGCTGCCCTCCCTTCTGGAGGCTGGAGG  
GGAGAGGCCAAGCCCTTGGAATGTAGCAAATGTCTGGATGTGCGATAAGTGCCTGTATGTGCGGGACAGGCCC  
CGAGAAGCTAGTGACTCCTGCACACCCCCATTGCACAAATGAAATCACAGCCCAGGAGGGAGGGTAGCTTGGCAC  
TGGCTGAGAAATAGAGCTCTCTCCCCGCCCCCTCCCCCTAACCAAGGGATTGTCCTGACAACTTGTGGGGATAG  
AAGGGCTCACAGGGCAGGGGTCTCAGCTGCCCCCATCCTTAGGGCAGGGGAGTTAGTGTGGAGCCGAGAGCAGGT  
CCCAGCTCCCCCTGCCAGCCGCACTGTCCCAGGCCCAGGGACCTCTGCCGGGTCTCCAGCCCTTGCCACACAG  
CCTAGACGTAGTAGCCTGGGCTTCCAGCAGGTGGCGAGCTGGTTCTGTGCTGGAATTTCTCCTGGGTTTCTTGGG  
GTCAAACATGCCAACCTCCAAGACCCCATCCTCACGTCTCCCACTTTTCTGGCGCTGGAGTGTGCAGGGCGTAGG  
ACCTGCATGTGTGGGTGTGAGAATGGGGGCGGTGGACACCAAGGGGCGAGTGTGTGACTAGGTGTGTGTGCACAT  
GTGTAGGGTGCAGACGCATGGGTGCCATCCTTTGCGTTTCACTGACTGTGCGTCCAGACCCCTCACAGCGGCCCC  
CCCACCACACCTTGGTCTCTCCAGGCAGCTGTCCCAGGGCGCCCAGGCCTGCCTTGACCACAGCCCTCAGGAAA  
TCCGGCAAGGAGGCCCCCTGCAGGTTGGTTTCAAGCCCCAGGTAGCAAAACAGAGACAACAGCAGCCCCCGCCTGAC  
CCCCTGCCCCCTCTCTGTGGAGGCCCGGGACCCCCGCAATAAGCACCATGGGTGAGGCTGTCCCTGTGAGGGTC  
CCCTGCCAGGGTCCCTCTGGGGTCTTGGGCCATTTGAGGGGCTCTTTGATGGGCCAGGCCGGCCAGAGTGAAC  
CCGAGCACTTTCTGGCTGGTGCCCCAACCTCTCCACTCCCCACTCATTCCACCTTGAAAAAGGGCTATAGGTCC  
CCTGCCCTGCCCGGTCCAGTTTACAAACAGTGTGGGGTGGCCCCAGGGCCTGGCCCCACTCTCCCTGCTGTGCC  
CACTCCTCTCCAGACTCCACCTCCCCAGTGGGTATGGGCCCTCCACATGCCAGGTAAGTAGCAAACCCCCACTCC  
CTCCAAGGACCAGGTCTCAGAGAAGGCCCTGGTCACTGCCCCCGGCCACCTGGAGCCCATCGGGGCTGCCTCTC  
CCAGCCGCGACTTCTCCTTTTGCCTTAGGCCTCGCGACATCCTGATCTCTCCTGCAATAACTAGGAATCGAGATT  
CCACAGTAGACGTCCCTTGCCGTGNN  
NNNNNNNNNNNNNNNNCTCTCTTTCTCTCTCTCCCTCTCTCTGTTAAGATCCTGTTTCGGGAGTTTCCCCAGCCGTTG  
TAGTATCTAGTATGTTAGAGTTGGGAGGGGACCATAGTTATGTAGCCCAGCCCCCTCATTCCCAGAGGCACCCAG  
AGGGCCAGCCTCCAGCCTGACCCAGAGCAGAACCAGGACACAGGTTGGGGCCCTGGTGCTGCCACCTCCTCTG  
CTGGTCGGGCTGGGACCCCTTGGCCCTTAGGAGAGGTGTTGGTACAGATGTTTACCTCAGTTTATGTCACTGTC  
GAAGAAACAAAAATAATAGCAAAAAATAACACTGTAGACATGAAGACTTAGAAGACAAAAAATAATTCAC  
ACAAAAATCTCCCTTGTGCGATTCTTCTGTGAAGGTACAGTGTGTATGTGTGTTGTGTGTATGTGTGTGCGTG  
TCTCTGTCCCAGACCTGTGTCCCCACACTGCCCCCTGTCCTTCGGTGCTTCCCAGAGACCCCTCTGAGCTGGC  
CTGTGGGGCACGGGAAGCCCCCTGGATGGGAGGCGGGGCCACAGGTCGGCTAGAGGGTCTCCACCAGGCCCCACTG  
AACAGAACCCACGGCTGCCAGAAATGTTCCCTGAGCCACACTGTGGCCAGTGGGACAGTCCCTGGTGGCTGACAT  
CAGCGTCCATGCTTGGCTCAGGGCCTGGGGCGGGGTCTGGGTAGAGTCCTAGCCCCAGAGCCCCAGCCCCCTCAT  
GTCTTGCCGCCCTTCCCTCATGTGTTTGTAAATACTCTGGCATCCTTGGCCCTGAGAAGGTTTTTAAATGTGTT  
ATTACTTCTCTAAACATGACGATTGCTATAAAAAATAACAAAAGTTTAGAAAAATGTAAAAA

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**FIGURE 1335**

THHTPGARELSGHTPRRLPEPWNPDLLLLAFHTTYEHILRSHPRSPPPRHPILPPPHPGYRKGLKCWAERGLKA  
PGHRLGSGQ

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**FIGURE 1336**

CGGACGCGTGGGCAAGTAATTAGAAAGTAATCCTTCATTTAACATCCCCACTGGGTGCCTCGAGGTATTTCTTGAA  
GCCGAATGGTCCCAGGGTGTTTCAGGGAACCTTACGAATTAAGAAATACTTGACTGTGGAGCAAATAATGACCTGT  
GTGGCAGACACGTGCAGGCGCTTCTTTGATAGGGGCTATTCTCCAAAGGATGTTGCTGTGCTTGTGACACCGCA  
AAAGAAGTGGAGCACTATAAGTATGAGCTCTTGAAAGCAATGAGGAAGAAAAGGGTGGTGCAGCTCAGTGATGCA  
TGTGATATGTTGGGTGATCACATTGTGTTGGACAGTGTTTCGGCGATTCTCAGGCCTGGAAAGGAGCATAGTGTTT  
GGGATCCATCCAAGGACAGCTGACCCAGCTATCTTACCCAATGTTCTGATCTGTCTGGCTTCCAGGGCAAAACAA  
CACCTGTATATTTTTCCGTGGGTGGCCATTAGGAAGAACTCCAAATCAAATGCTATGTAAATGTCTATGGGTG  
ACAGTCTGCTGATGGTAGAAACCTTTCTTTTTAGTTTACAAGTCAGAGATTGGACGGAGCTGACACAAAGAGTT  
TGGAGCTCCCCCATTTCTGGCTCTCCTTTTCAGGGGTTCCTTCCCCAACCTTTTCAGCAGCGGTGGCTGCCCCC  
ATTCTGACCCCTGACTCTTCCAGCCAGAAAGATGGTGGTTTTCTAAAGGAACCTTTAGCTGTCTGACAAATGCCG  
ATCTGTGTCTTGCATTTTGGGTAAAAGCCATAAAAAATAAGAACTCAGCCTGTGGCCTTTCTTTCTTCCAAGGT  
GGGCTTCTTTTTTTAAGTGACTTCAATGCAGTTTGTTGCTTTTAAAAATTTGTCCAGAATCGTTTTCTGCAGAAGC  
ATGGTCTGTTAGGAGCTTACTGGCCGTAGCAGAAGCAATTGTTTCTGAATTCCTTGACATTTATCTTTGCTGTAT  
TCATTTAGGGCTTGGGAGAGTCCGAAGATAATTCAGTCACTGTGAGATTAATAATTTTGTGAGGACAAAGAATAC  
CGTTATGATTATTTAATCCTTTAAAATTGTGGTCTCCAGAGCTTGTTCTCAGAATGGCCCAGACCAAGCCTTAAT  
TGTGATAGTGAATATTAATGGTCACTTTAAGGAGAAATTATAGGCCAAGATGAAATGAACATAAACCTGTTTGCC  
CTGGCTTTCAGTGGAAGATGATATTAGAGACCAAAATCTGGTTCTGAAGGTGTGTATCAGCCCTAAGGTGAACCA  
GACTTGGGAAAGATTGTCTTTAAAATCAATGAGTTTATGTTTTAACTTCTCAGCTTAGTTCTATGCATTGCTCT  
ATAACACACCTAGTTAAGTTTTATGTTATTCTTGAACGTGATTTTTTTCTATTTACTTTTCATGGTTTGGTGGG  
CCATTGTTATGGACTGAATGTTTGTGTCCACCCCTTACCCCCAAATTCCTGTGTTGAAGCCCCAACCTGCACTG  
TGGAGCTGGGGCTGCTAAGGAAGTAATTAAGGTTACATGAAGTCATGGTGGGGCTCTGATCTGCTAAGGTTGGTG  
TCCTTATAGGGAGAGACCCAGAGAGCTTGTTCCCTCCCTCCCTGTGCATGCAAACAAGAGGGCATGGGAGCACA  
CAGAGAGATGGCAGCCACCTACAAGCCAAGAGGAGAAGCCTCACAATCAAACCTCTCGCTGCTGGCGAGAGTCTTG  
GACTCTGTCTTGGACTTCCAGCCTCCAGACTGTGAGAAACAAATTTCTGTTGTTTCAGCTTCTCAGTCTCTGGTG  
TTTTGTTATTGCAGCCTGAGAACACAGCTGTACGATTATTTGTCAAACAGAAAACACTGATACTTAACAATGCTA  
ATGCAATTATTTATTTGCTTTTCAGTCTCTACAAAACGTTCTAAAACACTAATCTAAATATTAACAGTAAAATAT  
TTGCATAACTAATGGAACTAAGAAATCATATGACCAATATTTCACTTATTGGTAATCTTACTCTACTGATTTCC  
CCCCAGACTGTGATTTTTGAACCTTCCCTTGCCCTTCTCCTGTCTTTCTGTGTTTATTCATGGAATTCAGTTATCT  
GGGCTTGAAATTGCAGGCTCTCCTAACTTAAGCAAAATCTGACAGATCAGCAAAATGAGATAAATGTTTCTTTTT  
TCTTCTGACTGCATTAAATCAGATACAACCTCAGCATTAAAAAGCTATCTTTGTAAATGTTGTTACTAATAAATT  
AGTCTTATAAAAAAAAAAAAAAAAAA

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**FIGURE 1337**

RTRGQVIRSNPSFNIPTGCLFVPEAEWSQGVQGLRIKKYLTVEQIMTCVADTCRRFFDRGYSPKDVAVLVSTA  
KEVEHYKYELLKAMRKKRVVQLSDACDMLGDHIVLDSVRRFSGLERSIVFGIHPRTADPAILPNVLICLASRAKQ  
HLYIFPWGGH

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**FIGURE 1338**

GGCAGGAATTCGGTAGAACTGGAGTGACCTGTGGAAGCTGCTTTAGAATCTAACCTGCTGTCTTCGTGCTCTGTG  
**TGA**AGGGGAAGCTGGGGGGTTAGCATGAAGTCTGGCCTTGTGTGCATTGGAGCTTCCAAGGCACTTTGAAATCAT  
TCCAGTATATTTGGGAAGAATTGAGTGAATGAGAATGCTCTTCCTTATTCTGGTAGATTTGACTTGTTTATAATT  
CTGCACTTTAGAAGAAAAACAGTGTTAATCTGTAGTTGAAAGAAAGCTTAGTAGATGAGAGAGTTCTAGGCTACT  
GTGGCTTTTTTCCAGTAGATTTAGATGAGATTATGTGTTTTGAAATGTTTTGTGGGATCCCTTAGAAAGCATCACT  
TCAGGGCAGAGACACTCAATATTGCCAGCCAGCTTGGGTCTAAAGTGATTTAATCAAATTCATGCTCCTGATCT  
TTTTTTTCCCCCTTCCTTTGGCTATGAAAACCCAAAGCCCGGAGTGATTGTTTTCTCCTTGCTTTAAGCAGTGAA  
GTTATCCTAATGCAAAAGAGCTTAGTAGAAAATGAGTGGTTTACCTTTTTTCTAAAAGTATATTTTCAAGTTTA  
TTCTGGAATGTGATGTCTTGGTCCTCTTAAAAGCAGATCAGCCATGACTGAAACTCAAGGCTTAGCTGGTATCTA  
TGTTGTGCTACATTAGGTGACTAGAAGCCACTTCTTAGTGTAATCAGCTCCTGTTTCCCTGTGAGCCTTAGTTAT  
ATTTTAATTCAGTGGCTTTGAGTCAAGGCCGTTCTAATTGAGGGGACCCAGTGTGCTTCAGTGTTAAGAGTGGG  
GCAATGAAGAGTGAACCCCAATGAAGAGTGATCCCAACTTTGGAACTATCTGGTCATTTCATGACCTTAAAAAGC  
TGCCATGGTGGTCAAATGGCATGTGTTGCACAAAAATGACCGATGTGTTAACCAGCTTTGAAATGTGATGA  
AGCCACCAACATAAGCACTTGCCTAACAGAAATCAGTATTTCTTCTACTTAGAAGGCTTGGGGCCCAGGGTAATG  
AGGCACCAGATGAAGATAAGATCTGCATCAAGGAATTAAATTTCCAGTTTGTCTTGGGGTCTTTCTGCTTATG  
TTTTTTCCCCCCCCTCTGGTAATAGTCCTCTTCTGAGAATGAAAGGAGGCACAGAAGTTGCGAGAAAGACCCAGT  
CCCCAGTCTTTGCCACCATTGCACCATGGTTGTCTCGGAGTCCCTTCACCTGACCTTTTTAGTCAGCTCAGATCT  
TTTTGTAGTTTGAAGATAGACCTATTCAAGAGCTATCAGGGTTAAAAGCTGCACTGACCAAAGCTGTACTTTTAA  
AACACAACCCCTGGGCTAGTGATGTCTCTACTTGCTCTATGAGCCTTTTGCCAGCCTCAGAATAGGCGAGGTAAC  
CTTGAATTTTCAGGGCCCTGGAACTCTAGCTGAAACCTGCCTTTCCCTAATGCTCACACAAGCACCAGGTACCCTG  
AGCTTATACTGAGTCCAGTGGTTCCCTATTTATGTGTGTGTGTATGTGTGTGTGTTGAGTAACATGAAACTTGGCA  
GTAGCAGAGAGCACTGAAGTTCACATGCAAGTTCTAATCTAAAGTTAAGCAGTCTCTTATTTGTTTCGGGACTCT  
GATTTGACTCTTTTTCTGATGCTTTTCGGCATGTCTGCAGCCTGTTCTCCTAGCCTGCTGCTTGGAGTCAGGTTGA  
GCATCAGTGAGATGAAGACAGTACCTTTTCTCTCACATTGGCAGAATAGCACGCACTAGATGCCTGACCTTGAG  
CTCTAGTCTCCCCTTTAAATCTTACCTTGGCAGTAACACATTATTCCTCATTCAATAATTTCAATGCTGAACTG  
AACTCTATTACTAATGCCTTCCAATCAGAGTTCCTGATGGGGATGCCTGTGGGATGGCCCACACCTGGGGGACCT  
GGCAGATGGGGTGAGTTGGGTAAGGAAGATGATGCTTAGTTCCTGATAGATGCTACAGATGTAGTTTGGCATTTC  
AGTTTTGTCCAGTTTGATTTTCACTGGGGTTTGAATCACAGCAAGCTGTGTATGAACCTGTGTTTTGTGGTGAC  
ACATTAATAATCAAATTGCTAAAACCTGAATCTGCTTATTCTTCAGCTTCACCTCTGCACTAACCCCTTACCTT  
TATGGTACGTCAGGATTTTAACTAGTACTGCTTTGTTGACTTTGGGAAATGGTGCCACTCAAAGCAACTTCCTA  
ACTTGAGGAATAACTCCTTTGTAGTTTACTTTCTGGTACTGGTTGGTGCCTTGTATTGGGATACAGCTATATTCT  
TAGCTCAAATGTCTCTTTTTGAGAGCAAAGTAGTTATCCAATGGTGAGACGAGACCCTGACGCTCATAGAGGCC  
ATTCTTCCCTGGGTGTGCGACCAGGGCTCTGTGTCAGGGAAAACCTTCTGGGTGGACTTTGTAAGAATCCAGTTT  
CCAAGGTTAGATTCACATCCTTAATCTTGAGAGACTAGAATTTACAGCTCGCTTTGGAACATATTCCAATTCA  
ACCAGTTAAAATCAGAGGACCAAGTCGTGGGGGAGGGGGCGGTGTTGAGGAGAGGTATTTTTAAAGATCTGGCA  
ACTTTTCAGGATTATTTGTGGAGAACTCTAAGGTAAAGATCAGGAAATAAAAGACTGTGTGTGTGGGTGTGTGCG  
TGTGTGTGTTCAAGTGCCTAAATCTTGTTTACCTATCACTTTAAAAAAATAATTGAAGTGTAAGCTAAATAAAAT  
GCTTGGAGTTTTGCCTGGGCTAGTGAGAGTTGGTGCAAACTCTTGTTGTGTGTTTGCATAGGAAGGTGAGATGACC  
ATCTACTAAAGAGGAAGTAGCTAAATACAGATCTGTGGGTGTTTTTAAAAAACTCAACCTATCTGGTGTTTTAT  
TTTAATGGATAAAAATGTAATTTTTCTAAGGTAGCAACTTATTTCCAAATTAATATAGATGAAAAATAGATACCA  
ATTAGACTAAATTGAAAGCTTTTTGTTCTATATTTGCATAGCCTTTGAAATATTTCTTAGTGCTAGGAGGTCTG  
GGGATTCCTCTTTCTGTGGTGGTCACTAACCTTACTTGATGCAGATAAAATCACTTGTCATGCAAAATGTGTTAG  
AACTTGATAAAGCTTTGAGTTTGAGAAATAAAGGTATATTTAAATTTAAATAAAACTTGTCAATTTATGCTCATT  
G

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**FIGURE 1339**

GRNFGRTGVTCGTALESNLLSSCSV



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**FIGURE 1340**

CCCACGCGTCCGCCGGGCGCGTTCCGTTGGCGGCGGATTCTGAACGTTCCGACTGAGGTTTTCTGCCTGAAGAAG  
CGTCATACGGACCGGATTGTTTTCGCTGGCCAGTGTCGCCGAGCTTGTGTGCGATACAGAGAGCACCTCGGAA  
GCTGAGGCAGCTGGTACTTGACAGAGAGGATGGCGCTGTCGACCATAGTCTCCAGAGGAAGCAGATAAAGCGGA  
AGGCTCCCCGTGGCTTTCTAAAGCGAGTCTTCAAGCGAAAGAAGCCTCAACTTCGTCTGGAGAAAAGTGGTGACT  
TATTGGTCCATCTGAACTGTTTACTGTTTGTTTCATCGATTAGCAGAAGAGTCCAGGACAAACGCTTGTGCGAGTA  
AATGTAGAGTCATTAACAAGGAGCATGTACTGGCCGCAGCAAAGGTAATTCTAAAGAAGAGCAGAGGTTAGAAGT  
CAAAGAACATATTCTTGAAAGTTATGATGCATTCTTTGGGTGGTAACAGATCATAAAGACATTTTTTACACATC  
AGTTAATATGGGATTATTAAATATTGGCTATAAGTGAAAAAAA

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**FIGURE 1341**

MALSTIVSQRKQIKRKAPRGFLKRVFKRKKPQLRLEKSGDLLVHLNCLLFVHRLAEESRTNACASKCRVINKEHV  
LAAAKVILKKS RG

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**FIGURE 1342A**

GTGGGCCGCGCGGTGGCGGAGACTGTGGCTTTAAGAGCGTGCCGGGAGCCCCAGCCCCAGCCGGGCGCGCTTC  
GCCGCTGCGCACCCCAGCGGAGCCAAGCCCCACGCTGGCCGGACAGGGCCGCTGTGCGCGGGCTGCTGAGAACT  
AGCCCTAGACCTCTGCGTGAGGGTCTTCTGCCGAAGACATCACCAGTGTGTGGAGCCTGCCACACCCACCCGCT  
GCCAAACCACGGCCTTTACCTGTGTCTTCCGGTGTTTTCCCGTGCGACCCATCCTGTGGGAGTGCCTCGTGGGCTG  
CCCCAGAGTTACCCCCACACTCAGCAGCACCAATGGTGAAGATGACAAGATCGAAGACTTTCCAGGCATATCTGC  
CCTCCTGCCACCGGACCTACAGCTGCATTCACTGCAGAGCTCACTTGCCAATCATGATGAACATAATTTCCAAGT  
CATTCCAAGGAAGTCAAGGACGAGCATACCTCTTTAACTCAGTAGTTAATGTGGGCTGTGGGCTGCAGAAGAGC  
GAGTGTGTGCTAACAGGACTGCATGCAGTCGCAGACATTTACTGTGAAAACCTGCAAAACCACTCTGGGCTGGAAAT  
ACGAACATGCTTTTGAAGCAGCCAGAAATATAAAGAAGGCAAAATACATCATTGAAC TAGCACACATGATCAAGG  
ACAATGGCTGGGACTGATTGGACAGCATCTACCCAACCCAGTGTCCACGTGAACGCCATTCAACCGAACATTCTT  
CCCAAGCGTGAGAGAGTGACTGACACTTGGTTCCATCCATTTAGGGGCTTGCCATCCGGGGCATCCTCCCAACC  
TGACGCCATCTTTCTGGTGACCGGCTCTAAATCGCTGTCTCTCTGTCTCTTTGCTTTGTATCTGTTTGTGAGTT  
GATCCTGGCTTCTCTCTCTGTCTTAGTTTTGGCTGAAAACAAAACAACAAAGGAACAGATCCTTGACCGCATGG  
CGGCAGCCACCTTGGAAGGGCCCCAGGGCCCATGCGAGAGCTGCCTGATGGCCTCTTGTGAGGAGAGCAGTGG  
CACGGGGGCGTGAGGAAGAGGGAAAGGGGAAACTCTAAGGGTCTGGCGCGGGGAAGGGGTGGAAGGGTGGAGGT  
AGGAACAAAATTGCGCCGCTCCTGGAGACCTGATAACTTAGGCTTGAAATAATTGACTTGTCTAAAAGGACAAAG  
AGAAAAAATAACCTCATGACTGCATTCTCTCTGACTAGAAGCTTCTGTTCTGACACCAATGTGCCAGGTT  
AGCAATGAGCACAAGATGTGGCCCTGATTCTAGTTGGTGGGGCAAGGGCCTGGTTCTCTGGGCTGAGTGGGGG  
AGTGTCTTGGCAGCAGCGAGTGACCTGGGCAGTGGCCAGGTGGGTGCGATGACTCTGATGCCTCACTCAGTCTCT  
GGGCAATCATCATCTTTGCCTCTAGCCACCGTAGATAAGGTGTGAAGGGACTGCTGTTTGCAATGGGCTTACCAT  
CCAAATATCCCAAAGGCTTTGACCAGCAACCAAGTAAATCAGTAATTGAGGAGAGCAGGGCACAAAGGGGCTGC  
AGTTTGGGAGCTCCTGAAGAAATGGCTCAGATATTGAGTCAGAGAAATAAAAAGTAGGATCAGTTAGCAATTCTA  
ACTGCCCTTCTTCTGACCCCTCATAAGAGGAGTGTGGTGAGGGAGGGGACTGGGTAGGGGTCTATCCAGGAGGA  
GGGGTTTACATTGGAACCAGTTTCAAGTTTCCGTGCATCTTTCTCTCGGTTTTACAGTGGCTTCCGTGGGATCGT  
CAATTTCTTGTCTTAGAGTTTCCGGTGTTTTTCTCCAGTCTTGTACTGTAGACTGTAGAAAGCACGGGCCCCA  
GGCTCTGAGCTTAGTAATAACCTGGCTGGTAGATTCTCATGCCCTAATTGTCCACTTAGGCCTGAATGTCTT  
GCATGGAGAGAAATCTCCTGTGAGTGTGGTCCAGCAGCAGGGAGGAGTTCTGCCCAAATTCGATATCACCCCTT  
CCCCATCCAAACATCCTTCGATTAGGGAAGTGAGAGCACATCCCTGTAAGGCCATAAGAGAAAGAGGAGTTT  
GTTACATTTAATCAACACTGTGAAGTCTGTTCTACAGCAATTCAGCCATTACACAGTATATGACTGAACTCATT  
TAACTGGGTAAATTTCAATTTCTTAGACTGAATATATTATTGTTAAGATACGTGTGCGTGTAGGTAATTTCTCAGC  
ATCTCTCCAAGTAGGCCGACCTTCTCGGAAAATTCACCCATAAAGTCTCACAAAAGAATGAGTTTATGGGGAGA  
TTCTGTAAAGTGATGAACTGAGATGAAAGCAGCCAACAGCCAGGAGCTTTTCAGAATAGCGTCTGCAGCAGAAC  
CAGTTTCCATTGAGAGCGCTCCTTGGTGGAATGCTTTTTTGTGTGTCTCCACGCGCTGATGGTGGAATGGGAG  
CCCCAAGACGTGTGGGCTTAGAAATCACTTTTGTTCCTCAAGGCTTCTGTCCAGATCTTCCAGTGCTTTTCAT  
AGCCCTGGGAGATCAAGTTGTTCTCCCCACTTTACTGCAAGGTAGACTGAAGTTGAGAAGAAATACTGAATTTCT  
GCTCCCAGAAGAATAGTTTCTCTGGCTCACAGGCCCAAGTTCTCAATGAAATCGTTTTTTAACTTTACATTCTT  
AAGCTGGCTTCCCGTGACAGAAGCCATGGATTTCCCTCTCTCCCTTCCCCCTCCTCAAGGAAATAGTCTTCTT  
TTATGGATTTTCAATGGACTCTTTCCTCAGCGATTGTCTGGCTGTTATTGATAGTCTTCCCATAGAAAATG  
GGGTTAAACATGGGGTAGGTATTTTGTCTTTCAAACTACAAATGGAATGTGGTGACATAAACTAGACATGGGGTG  
CCCTCAAGTTTCCAAGGGGACCAATGTGCCACTGTTCTTCTTGGGGATGAGGCCTTTGACTGTTGGATGGATCA  
GAGCAGGCTCCAGTCAGACCCTGGTTCTGAATGTTTTTTTTTTCGGTGACTATCCAGTGAGCCTTCAGTGGGTGC  
AAGGCGCCATACTTGCTGTGAGAGAGCTGAGTAGAGTGTGGTTTTTCCATAACTACAGGGGGAAAAAAGTCAT  
TAGGCTTTCCCTTTGTGTGAGTGAACCAAAAGTGCTTCTTACAACGTTTCGCTCTGTTTATGGGTTGTCTATCTA  
ACATTGAGCAGCATTTGAGAGGGCCACAGCTGAGCTATGGAGATGCTAAATTAACCTCATGGCCTCAGTCAGTTTCA  
TCTTTAATTTCTCACCAATTTATTGACTTAGAGCATAACCAAGACCTCATTATTACCCAGGTGGGTTGGG  
GGAATTGGAGTTTGTGGTGAAGTTTGGGGGCGGGGTGTGGGGAGTAGAGACAGGGTAAGGGGACGTGAGAAAGG  
AAAAGGCATGAAGTTCTATACCTCAGCCAGCAGCTGCCTTCGTTTGGAACTGAAGTCCAGCCAGCAGACTCTCTA  
GCTCCATCTCCCTGTGCCACCCTAGGTATATGACCTTGCCACCTTGAGTAGACCCAGACCCCTCGGGACCC

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**FIGURE 1342B**

GGGACATTAGTCTCAGGCTGCTGATGGATTGATTTGACATGAACCAAACACAGCCAAACTCGATACCCACAAGCT  
 GTCAGCTGAACCTGACTGAGTGTTCTTCCTGAGTTCACGAGGATAGGCTAGAGTGCATTTTTACTGGTGGATCAG  
 TGTGTGCGAAAGAGATGACCCTTTATAAAGAGATTTTCAAGTGGATATATATAAAAGAAACAGTTGCTTGTA  
 TATACTTTTGTAATAATATTTAATTTTTTAAATAATATATTTGGTGCTGTTTTCTCAGATCCCCTGAGAGCACT  
 TTTTATTTTCTTTTTAAATTTCTATGGTTTCTTTGCATTTCTTGAAGTATATTTTAAGGGAACAGTGATCACC  
 ATACATGTTTTAGTTTTTTTTTTTTAAGGCTCTCTATCACTTAACTCGGATCAAGGCTTTGAAGCAATGCCTCT  
 CIGCATTTTTTCCCCAGTGGAACAGACTCTGCAGTACATTAATCAGGTTGAGAATTGAAATATTTTCTTGCA  
 GTATTGGCTAGAAAAGAAAATAAATAAAACCAAGTTAATTTAGTAGTAACAACTTACAGTGATTCTTCCTGTTGG  
 AAGAATTTGCAACAAATCAGAATCACGTTTTTAGTTGTGCGTGTGCGCGCACACGTGTGTAAAAAGCACTTTTGA  
 TTGTGCTCTCTGTTTTCTCGAGTGGGGACACTTTAACTACAGTTTACACCTCGGGCGCATAAAGTTTTTCTTCTC  
 TTTCTCTCTGTTGTTTCTGTTTCTGAGTGGACCAACAGCAGAACCCACGAGGATTTGTTTTGAGTATGGAGCTG  
 TTGCGGGTTTGCTCCTTTTTCTTGCTTTGCGTGCTCAGTTTTTACAGACTGTAAAGGAGATGTGTTGTTTGTGAA  
 GATGGAGCAGAGTCAAATCTGTGCTTCTAACTGAGATGAGAGTGTATTAATCACGTATCGCAGGGCTCCAGCTGT  
 TTTAGAAGCCACATCATGTTAAACATTAACCTGGTTTGGATTAAAGAACATTAATATTATAATACATATCTTA  
 GTGGTAAACAGCTTTTTTTTTTTAAGGTCAGATTGCCTCAGGTTTAGAAAGAGGCTGAGAAATCAAATCTTGAAC  
 ACAATCAACTTACATATTTTAAAGGAATCTGCCTCAAATGAGAAAATATGCTAGTTATCTAGATAGAGGAAAGAG  
 ATATTTACTTTTTTAAAAATTAAATAGTTATGAAATCTGGCAGAAAAGGTAAAGCCTAGAAGAACTATGAAAG  
 CTATTCTCATGTTACCAAATCTATCTGCGCATATGTTTTTGTATAACATTTCCGGTGACAGTGGGAGTCGGTTCC  
 CTTTCCCAACCTGCAGAGACTATCTTCCAATACAGAATCTGTCTATTTATGCTTGTGTTTACAACTGTATTTGT  
 TGGGTTTGGGTTTTTGTCTTTGGTGGCATTTTTCAAGGTCATTTGCTTCTATAACAAAGGTAATTGTTTTCA  
 AATAATTTGTCTTCACCTTTTCTGTATTTGTACATAGTGATTCAGTATTAGAGAAAAGTGCATTGTTTCTGTCA  
 TATTTCCAATCTGTGTTGGTGCTCATTTGAGAAAATAAAAGTTTTTCAAATATTACAAAAAATCTATGTCGGGTG  
 CGGAGAAAGAGGTAATGAAATGGCAGG

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**FIGURE 1343**

VGRGGGGDCGFKSVPGARAPAGPRFAAAHPSGAKPHAGRTGPPVAGLLRTSPRPLREGSSAEDITSVWSLPHPPA  
AKPRPLPVSSGVSRATHPVGVPRGLPQSSPHTQQHQW

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**FIGURE 1344A**

AAAAGAGACATTGTAATGAGGCACACCACTAAAGTGAGCATGCCCAATTAAAACCAGTGTAATATAGGATAAGAA  
AATCTGATTTTTCAAAAAAGATACTCTACATAAAGAATCCTTCATATAAAAAGTCTTTCTTGTTAGTACATTTAA  
AGTTTTAATTCACATCATGTATAACTGAGAGTTCCTTTGAGCCCTTTTAGGCAGGGAGGCATGCTGTGCATCTAG  
CGTGTGGCCCAGTAAGTGATTATTACATTGGAATCAGTTTTTTCAGTCTTTTAAAAATAAATTCTATGCCATAAGAA  
TAAAAGATAAAGAGCAAAATTAATGTAACTATTTTTAGCTTATTATAACTATGTCAACAAGTGTTTATTAATAC  
CTATTATGGGAAAGTCACTGTGGTTGGCATTGAAAATTACATCATCTTTAAAGCAGTATTTGTCCCCAGATGGAC  
TCATCACTAGCAAAGACTAGGTTTCATTGGAAGGCATAGGGTGAGAGAATGGGAAGATGGAGTGRAGGCGGGTTGT  
TAAAGTGCTGTCACTGAGTGATTTTGTCTACTTTGAATAATGGTCCATGTTTGGGGGCATATTGTGTTTCATAAGA  
AGTGAAAGGTATTTGCAAAGTAAGCTACAAATGACCCATAAATCTGTTAACAACAGTCTTAAATATGCAAAGATG  
AAAACCAAGCATTACTGCTACCCAAAGGGAAGTGGTGCTTGGTGATGTGCAGATGGGGCTGTTGGTTAAGAGAGC  
TATTACAGTTTTTCTCTCTTAGGTTTCATAGGAGGTAGTTACTGAGATGAGATTGTTTTATCTTTTTGAATACAG  
ATCTCTTGCTTGAGTTAGTTCTGAGGATGGGAGTAATAAAGGAGTTTTTGTGTTTTTGTGTTTGTGTTTGTGTT  
TGGCTCCTTAGTAATACTCCTCTGACATTTATTTCTATTATTCTTCAAAGAAAGGAAACCAACTGAAATGTTTGC  
TTTAACAAACATTTTAATAAGTTCTCTGGGTTTTTTTTTCCCTTTTAAAAAATTAGCATATACCATAGCAATA  
AAAGAACTAATGTAACTATTGTATGCTACAACCTAAGTGATTTTCTAAAGAAGCACAATGTCATTGAAAGTAT  
TATTGAAAAGGATCATAGTCACATTGAATTTGTGAAGGCCAAAGAAATTGAAGGGAGTGATATTTTCATTTTATG  
ATATTCACATTAGTAAATTTTGTGTACAAGAATACCAGGCAGAGTGTTTTACCCATGGAAACAGGTTTCAGATTA  
CTTTGTTTTTACTGTTAGAGTCTCAAGTTTAGAAATGCTAACACTTAAATCAGTTTTTTTTCTCACTATACTTGAA  
GATTGTTAATATTTTGATATCTTCCTAGCTTGATGAATTTAAACATATCTTCAGATCTGTGACAGTGACAGCCAA  
TAGGACTGATAATATTAGCTTCAAACCAATAATATCCAGGGTTAAAAATAAAATCATAGTGAAAGTACGATTGTA  
AAATTATGCTATATTAACTTTTAAGTCTGTAATAACTTGACATCAAAATGTTATGTAATTACCATAAATAATGGC  
TAGCGAGAACATCTTTGGAAATTCTCAAATTACCTTTCTTACTACACTGTTTGCAGAATGAATGTAGAAATGATC  
CTGTTAGCTTTCTGAATGTTCTGTGGGTTGAATGTGTTTTTGTCTAAATAAAGCTTTTGGTATTTGTTTAAATTA  
CACTTCTTGAGAAGTGGAATTTTAGGATCATCTTTGCTTTGTTTCAGTTTTGTGATTTTTGAAATGAATGTTTA  
GTTTACTGAGCCAGTTGGTCATTTCTTCCTCATGTCTGTTAAGTCCAGTGAGTAAGCCTGAAGTGTGAATAAATTA  
CCAAAACTTGCTTAGAATTTTCAATTTGAAGCAATTTGCTAATATTTGAAGTGTATACACATTTGTAGTTATGTT  
AAAAATTGTATTGTACTAAGAATGTAATCAATGTCTACTTTAGTTGTAAACATTTCTGATGTCAAACCTTTATTC  
ATTACTGTTGATTTTAAGAATAAGAAATCACTGCCTAAATATTACCAAAGCCACTGTCTCTACCCGAAGCTTCCC  
AGTTTTGGGAAAGAATCGTTAGATAAAACAAAGGCTCTGCCCTTTCTGATACCAAACCTCCACAGATACTTTCTCAC  
ATCTTTTAAACATTTTGCAATAACATATTGTTTATAGGAAGTTTACAGGGTATGCAATGATTAAACCTTTTAAG  
TGAATTGATAGTTGCAAAAGAAAGGATAATATTTAAGGTCAGTGAGTAGCAAGACAATCTAAAGTTTCTGTAATA  
TCTGGCTCTCTGTTAATTATAGAGCAAAGTTTCCCTTACAGAATCCTTTTATGAACAGCAAGCTAGAGTCTATCC  
CTAGTGGTTATAGCACCTGCTGCGTTTTTCAGGAGACAGTTAGGCCAGGGTGATTGAAATGGATAGATGTGCTGT  
TTTGCTGCTTGTAAGATTCAGCCCAGTCTTTGGTCT  
CTTCTGCACCAGAGCCTAAGGCTGCGCCACCAAGATGCGTCATTTTTTCCAGAGGCTTCTTTTTTTTTTTTTTG  
AGATGGAGTTTTGCTCTGTTGGCCAGGCTGGCATGCAGTGCTGCAATCTTGGCTGACTGCAACTTCCACCTCCCG  
TGTTACACGAGTCTTTTGCTCAGCCTCTGGATTAGCTGGGATTACAGGCACGTGCCACCATGCCTAGCTAATT  
TTTGTTTTTTAGTAGAGACGGGGTTTTACCATGTTGGCCAGGCTAGTCTCAAACCTCTGACCTTAAGTGATCTG  
CCCGCCTTGCGCTCCCAAAGTGCTGGGATTACAGGCATGAGTCACCGTGTCTGCCCAGACATATCAAATTTGAC  
AGGTATTGTATACCTTTTGATCTTTAGGAATTAATTTTTGCTCTGTCACTCAGCTTTGTATATTTTGAAATGG  
AGATAAGTATAGGAGGTCTTGAAGGAAAATTGCCAGAATCCCAAACCATGTAACACTCATTGAGAATTCCAG  
ATCCATTATATCTAAAGGGCAAGTGAAGGAAACAGTATTGTGAACCTGGGTATAACTCCTTGGTTCTTAACTAGTA  
CATTCTTAATCTGTGAGACCCAAAGGTTGATAAACAATAATTTAAGATTGTACAGTACTCTAAACGTCTGCAAAG  
GTCTAGATGTTATCAGTATCACTAGTTTTTATTTCTGCCAGTAGTCCCTTTTAGGTTACATTGTTGTCCTCTTT  
CCAGTGTGGCATCTGTCAATTGGTTTTTCACTATGGCAAGTTCATTAAAAAGCTTGCTCCATTGTTATCTTCAAGT  
AATGCCATAAGGAGATGGAAGATATCTGAGACAATTAAGGCTTTAGCTTCTAGGCAAGAGAAATAACGTTGCAT  
TAAATTTCAAGTTTCTTTCTGCTAGACTTGAATGTCTAGCCACTCTAATTTATGGGGGCTTTTGGTTTTTTTCC  
TATTGTACTTTGTATGTAGAAATTGTTTTGAAATATCAAGCATATTACTTTGAATTTGAACCTTTTCTTAATTTT

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**FIGURE 1344B**

GTATTTATCCTTTGAATAAAATGTAAATCAAAAAAAAAAAAAAAAAA

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**FIGURE 1345**

MCLATLIYGGFWFFPIVLCM



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**FIGURE 1346**

GGTTGGTGTGTTTGGCATTTCCTTTTAAAGAAAATGTTTTCAGGAAACATGAACAAACATACTG  
 CCAATTATAGTGGGGCTGGGAAGGCACAGGAGCTGGCGACCTCTCAGCTGCATAGTTGGGACGGCAAACCTGCT  
 GTGAGCTTCTCAGACTTTTACCTACTTCACCTATT**TAAGA**AGCCATGAGGAGTTGTAACTCTTGTTTCAGGGAAG  
 AAAAGAGGGCAGGAGGAAGTAACCCAATGCCTTTAAATACAAAACAGATGAAAAACAAATACTCATTTCCTT  
 TTCTATTGTGGGTTTGGGGAGCCAAACCAAGTGTGACTGTGAGCACGTTCACTGAGAGGCATGACAACATTATTG  
 AAGAGGTCTTTCATTATGCTGTTCTCTTATTTTCTTAAGTCAAGCCTTAACATGAACATACTTTAAGATGA  
 TACGGGTCTGTACCATAAACCTGTAAAAGGGCATCGACAGCTTTTCAGATAATCCAGGAATGTTGAGACATGGC  
 TAAGTTTCTAGCTGATACTTAGTCATTCCCTCTTGATATTGTTGGGATGGGTAGCCAAAAGGCAGGCTTGTGGGA  
 GTTAAGAGCCAAATGATACCTGGAACATGGGAGGTAGCTGGGGGTACAAGTGGATGTTGAGACTGAAGGAAGAGG  
 TGGAAAGAAGACACAGAAGGCACCCAGATGCCAAAAGGCCTGGCATGAATGAGAGTTGGCATCTGTCTCTGTTGTG  
 GTGTTCCCATTCCTTGCCATACCCATTTGCCCAGATTGTTCTGATTCTCATGTTCAATTGACTATCCACATGAGA  
 CTACAGTTTATAGGCAGTGAGGAATTGTTTCTTCTGGGAAATGTCCTTCCAGCAACTTCAGAGGAATGGGAAAG  
 TGTTAATCTTACGTGAAGCAAAGGAGCCTGGACTAGGGGCAGAGAGAAAGAAGCAGCAGCCCACCTTCTTTGTGT  
 TTGCACATGTGCCTATGTCGTGTACATTGGTACCTGACTGTGGCTCAGATCTGCGTCGCAGCAGCGAGAGAAGAA  
 ATCACTCCATATCCGATGAGAGGAAGGGTGGCACAGAGATGGTGTCTACAATTAGAGACATTTCTGACTCCACCT  
 TAGCCTAAGCAAACCTTTATATACTGAGTAACATTTGAAGTTGTCTTTTAAATGGTGGGGGGTGTTCCTTTT  
 TAACTACAGTGCTTGACACAAGAGAGGGAGGGACTCAGAAAAGGTTAGGGCAGGTGAGGGAGACAGTAGATGGCC  
 TGGGATGACTTGAGTCCATCATACTATTGCTTGGCAGGTGTCTCCCCCATGTTTGATTCAAATTCCATGAGTGA  
 CCTACCTTTCCCCAGGAATGGGACTGAGAGGGTAGTCTCCAGCAACTCAGTCTGCACAGGGCTCCCCGTTACGGC  
 TGCTTTGGTGGTTGTGCTTTTGTAAAGTTTCTTCTGCACTTCGACTTACCTCTGAATCAGAAAGCAAGCCCA  
 GCAGGTGAATGAGGGATGTCTGCTTGGCATTGCCCAATCTAACCAGGGAGGCTGGCTGGCCACCCACTGTCCGCT  
 AGAGGGGAGAGCTAGCAGGTGTTGGTATGAACTCAGGAATAGAAACACGAGGCCTTTTTAAATACGAGGGAGAAG  
 AATCCATGATGCATACCTGTAACCCCTAGAACCCAAGTGCCAGAATTCCTAGATGCTGCTTCTGTTTGAACAAA  
 ATGTCACTGCTTTTACACTTGAAAAAACACACTCGAAAAATGTTCAACTCCATGAAAAATATTTTTTGGCTTTA  
 AGAAATGTGTTGGTGTAACTGTTTCCTTTGATTGCCATTCCACCAGTAAATTGTTGGTTGATTTGCACTGCAC  
 TCTGGGGTTGGGGTTGGGAGGGGAGGGTCCTTATACAGAGCCGAACCTGGGGTTGCTCAGGAAGTGGGCCAGGGA  
 ATGTGGAAGTCGTTGACATTGCCTGGGCCAAAAGAGTGGGAGATAGTTTTTCTCCCCTCAGCCCACTCCTGGTAG  
 CACCTGTGCGCCAGCCTGGTACAAAGCCAGGCCTTTTTCTTCTGTGAGCATCTCATCACTGTCCAGCAGCAGGTGG  
 AAAAAGGGGGACAACAACCAGACCTATTTTTTCTCCCCCATTTTTTCCAAATTTTGCTGTGCCAAATGTTTAAAA  
 TTTTATAAATATGAATCTATTGAAATTTCTTAATCAAGAGCTTCTTCGTGTAAAGTTTGCTTTTTTTAGCTATAG  
 AAAAAGAAAACAGTAAATATCTCTTAATGGCATCCAGCCTTGCTGAGCTCACCTTTTTTCTGAAGAATGGGTAG  
 GAGTGAAATATTTAATGTAAACATTTACCAAGTCCCTTTACCCTAATTTTGAAGCTGCATTAAACCCAACTCAC  
 TAACACAGGGAATGATTGCACCCTAGTCTCTGTGGGCCAAGAACTTTCAGAAGCATTAAAAAATAGTTGAAG  
 TATATCACTTCTCACCAAGTGGGTAGAGTCAGTTGGCTGTTTGCCCTTGTTTTTTATTTATTCCATAATTATGT  
 TTGTGCTTTTTGTTTTGTAAACAGTAATGGAACGTACATTTTATTTTGTGTTAGAACAACTTTGATTCAATCT  
 TTCAAGAACTGTTCCATTCTTGTTTTCTTCTTAGGGGGATAAAAAGTTACCAGTTAATTTGTTTTGAGATATTTA  
 AGCATTCTTTGAGTTATAGAATTGTGATGCAGGGATTTGTGAATGAGACATTTACATGTGAAAGGTGACTTCACT  
 AGTTACCTGCTTGAGCAGAGTAAAGTGTGTATATGTACATAAAATGTAAGTAATCTTAACCTCATTGTGCAGTGC  
 CTTTTAGATGTTCCGCTTTCTATAAAGTCTTCAAATTTTTGCATATATATTATATATATATGATGTAATGTTATA  
 GAAATATATGTATAATATACATATTTTTTCCAGGGGTATCTGATAGCTCTGTATTTTGTTATGGAAGTTGAAAGA  
 AAAAAGTATTTTACCTCAGAAATTAATAAAAAAATACTTTTAAGTATAAAAAAATAATAGCGCCGCTCGTGA  
 T

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**FIGURE 1347**

LVLFGIFFFSFLKKMFSGNMNKHTANYSGAGKAQELATSQLHSWDGKPCCELLRLFTYFTY

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**FIGURE 1348**

ACTCGGCCGGGCAGCCGCGGGCCGAGCGCAGCCGCCTCCGCCACCGATGCGCCTGGTGGCCAGACTCCAAGTGGG  
ACCGGCGGACACGCAGCCTCGCGTGTGAGGGGAAGCTGATGGAGAATCGAGCTCTGGATCCAGGGACTCGGGACT  
CCTATGGTGCCACCAGCCACCTCCCCAACAAGGGGGCCCTGGCGAAGGTCAAGAACAACCTCAAAGACTTGATGT  
CCAAACTGACGGAGGGCCAGTATGTGCTGTGCCGGTGGACAGATGGCCTGTACTACCTCGGGAAGATCAAGAGGG  
TCAGCAGCTCTAAGCAAAGCTGCCTCGTGACTTTTGAAGATAATTCCAAATACTGGGTCTATGGAAGGACATAC  
AGCATGCCGGTGTTCAGGAGAGGAGCCCAAGTGCAACATCTGCCTAGGGAAGACATCAGGGCCGCTGAATGAGA  
TCCTCATCTGCGGGAAGTGTGGCCTGGGTTACCACCAGCAGTGCCACATCCCCATAGCGGGCAGTGCTGACCAGC  
CCCTGCTCACACCTTGGTTCTGCCGACGCTGCATCTTCGCACTGGCTGTGCGGGTGAGCCTTCCATCCTCCCCAG  
TCCCTGCCTCTCCTGCCTCCTCCAGTGGGGCAGACCAGAGACTCCCATCACAGAGTCTGAGCTCCAAGCAGAAGG  
GCCACACCTGGGCTTTGGAGACAGATAGCGCCTCTGCCACTGTCTTGCCAGGATTTGTAGACTCCCTGAGCCT  
CAGTTTCCTCAACTGTAAAGTGGAGATGGGTTTGGTGTGCGGAATAACGGGACCAATAAATGATGCTTTACTATT  
AAAAAAGAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1349**

MENRALDPGTRDSYGATSHLPNKGALAKVKNNFKDLMSKLTGQYVLCRWDGLYYLGKIKRVSSSKQSCLVTFE  
DNSKYWVLWKDIQHAGVPGEEPKNICLGKTSGPLNEILICGKCGLGYHQQCHIP IAGSADQPLLTPWFCRRCIF  
ALAVRVSLPSSPVPASPASSSGADQRLPSQSLSSKQKGHTWALETDSASATVLGQDL

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**FIGURE 1350**

PKPPSCSPAWASLIPLFFLD  
SLGPSRPWNPIFGLGGSAAWA

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**FIGURE 1351**

PKPPSCSPAWASLIPLFFLD  
SLGPSRPWNPIFGLGGSAAWA

## FIGURE 1352A

TTAGAGGTCCTTTCTGCTTTATAACATTAGGTTCTTCTTGAGGCGCTTAAGCATTGCTAAACAGGTTCAAGTAA  
AGTTTAGTAAAGTTTCATTACTGCCATTGATTCAATTATCAAACCTGCTTTGTACATATAAAGAATTCTTCAGAT  
GCATGGTTTCTATTAACAAGATCCAATGCCTTCCTTTATTTCCCTTCAGTTCAACATCTAATATATAAAGATT  
GCTCTGACTACTACGCAATAGGCAAAAGAAGCAGTGAGACCTACAGAGTTACACCTGATCCCAAAAATAGTAGCT  
TTGAAGTTTACTGTGACATGGAGACCATGGGGGAGGCTGGACAGTGCTGCAGGCACGTCTCGATGGGAGCACCA  
ACTTCACCAGAACATGGCAAGACTACAAAGCAGGCTTTGGAAACCTCAGAAGGGAATTTTGGCTGGGGAACGATA  
AAATTCATCTTCTGACCAAGAGTAAGGAAATGATTCTGAGAATAGATCTTGAAGACTTTAATGGTGTGCAACTAT  
ATGCCTTGATGATCAGTTTTATGTGGCTAATGAGTTTCTCAAATATCGTTTACAGTTGGTAACTATAATGGCA  
CAGCTGGAGATGCATTACGTTTCAACAAACATTACAACCACGATCTGAAGTTTTTACCACCTCCAGATAAAGACA  
ATGATCGATATCCTTCTGGGAAGTGTGGGCTGTACTACAGTTTCAGGCTGGTGGTTTGATGCATGTCTTTCTGCAA  
ACTTAAATGGCAAATATTATCACCAAAATACAGAGGTGTCCGTAATGGGATTTTCTGGGGTACCTGGCCTGGTG  
TAAGTGAGGCACACCCTGGTGGCTACAAGTCTCCTTCAAAGAGGCTAAGATGATGATCAGACCCAAGCACTTTA  
AGCCATAAATCACTCTGTTCATTCTCCAGGTATTCGTTATCTAATAGGGCAATTAATTCCTTCAGCACTTTAGA  
ATATGCCTTGTTTCATATTTTTCATAGCTAAAAATGATGTCTGACGGCTAGGTTCTTATGCTACACAGCATTGT  
AAATAAAGCTGAAAAACAATGCATTTTAAAGGAGTCCTTTGTTGTTATGCTGTTATCCAATGAACACTTGCAAGC  
AATTAGCAATATTGAGAATTATACATTAGATTTACAATTCCTTTAATTTCTATTGAACTTTTTCTATTGCTTGT  
ATTACTTGCTGTATTTAAAAATAATTGTTGGCTGGGTGTGGTAGCTCACGCCTGTAATCCCAGCACTTTGGAAT  
GTCAAGGCAGGCAGATCACTTGAGGTGAGGAGTTTGAGACCAGCCTGGCCAAACATGTGAAACGCTGTCTCTATT  
AAAAATACAAAAATTAGCCGGGCATGGTGGTACATGCCTGTAATCCTAGCTACTTGGGAGGCTGAGGCAGGAGAA  
TCGCTTGAACCTGAGAGGAAGAGTTGCAGTGAGCCAAGACTGAGCCACTGCACTCCAGCATGGGTGACAGAGAA  
AACTCTGTCTCAAAACAAAAATAATAAAATTTATTTCAGTAGGCTGGATTCTACACAAAGTAATCTGTATTTGGG  
CCATGATTTAAGCACATCTGAAGGTATATCACTCTTTTCAGGCTATAATTATTTGGGTAATCTTCATTCTGAGAC  
AACTTAATCTATATCATTTACTTTGCAACAGAACAAACCTACAGCATTTTGGTTCCCAGACTAAGGGAATAAT  
ATCTATATAATTAACTTGTTCAATTTATCATTTCATGAAATATAAAATACTTGTCATTTAAACCGTTTAAAAATGT  
GGTAGCATAATGTCACCCCAAAAAGCATTGAGAAAGCAATGTAAGTGTGAAGACCAGGGTTTAAAGGTAATTCAT  
TTATAGTTTATAACTCCTTAGATGTTTGATGTTGAAAAGTCTTTAACATGAAAATTATCTTCTCTGCTCTGTG  
TGAACAATAGCTTTTAATTTAAGATTGCTCACTACTGTACTAGACTACTGGTAGGTTTTTTTTGGGGGGGGTGGGT  
AGGGATATGTGGGTAATGAAGCATTTACTTACAGGCTATCATACTCTGAGGCCAATTTTATCTCCAAGCAATAA  
TATCATTAAGTGATTCACTTCATAGAAGGCTAAGTTTCTCTAGGACAGATAGAAAACATGAATTTTGAAATATAT  
AGAACAGTAGTTAAATACTATATATTTCAACCCTGGCTGGTAGATTGCTTATTTTACTATCAGAACTAAAAGA  
TAGATTTTTACCCAAACAGAAGTATCTGTAATTTTTATAATTTCATCAATTTCTGGAATGCTATATATAATATTTAA  
AAGACTTTTTAAATGTGTTTAAATTCATCATCGTAAAAAGGGATCATCTCAGAGAGAACAGCAGTATTCTGCGTA  
TTTTTAAAAATGCTCTAGAGTAACATTTGAAGTAATTCAGTGTAGTGATGCCAGTCCTAGAAATAATTTTTTTA  
ATTTCTGGTGTCTGTTTCTAATACACTAACCAAGTTTTCAAATATATTTACAAAGATGCATCTTTACCCATTAT  
TTTTAAATGATTAAGGAGGATAGTTGCTTCAGGTAACAAGCTAATTTTTCAAATATTAGGCCCTTACAGAACTAT  
TTAGTCAAAAAGTAAGATATTCCTTTAAATATATAACCCAAAGCTTTCAGTTAAACATGATATATCACAAATAC  
TATTAATGTTAAAGAGAAATGCAATAGCATTAAATGATGACCAAAATGTAAATATTGTAGATTTCAAAGC  
TGTGTCTCTATTAGGTGGGATACCAATGTAAATGATGTAAGTACGTTGTTTTTACTTTTTACTTTTTAAAAA  
AGACTAAAAACGTTTTGATATTATACAATGTATTTGTTTCAGATAAGGTCATTGTCAATTTAGTATATATAATTA  
TATATGTACAAGTTAAGTAAATTCCTGTGAGTAAAAATGGACTTATCACAAAACATAGTTCTAAAGAAAGGTAT  
ATGCTCATATACACGGTGTCCATTAATTTAATGGGAAGTAGGTATAACTTCAGGAGAATTTGGCAAATAATTCAT  
TAATCCATGTAAATATTCAAAGCTTGTTCTATCCACATTATTTCAAGGGATCACTTTATTTTTCTATTACTTT  
CACAGCACTTTTCTAGTAAATCTGTAAACACAGAAATTCATTTTGGAAATCATTTTCATGTTACCAATAATTTCTAG  
ACTTTTATAACATTTAATCATGTTGATGGAAATAGATTACATCTGCTAGAACCTTTTGCCTTAATTTACCAAT  
ATATGCTAATATTCTAATAATATGGATTGACTGTTTACAAACATTAGAATCTTGTCTTGGTTCCATTTTGATGGCT  
AATATTTGTTATCTTAATTAAGACTATTTCTGAGGTGATGATTACTTGAAAATATTGACTAAAAGTGGGTCTTA  
GAAATTCAGGTGGAGCTGATTTACCTATGACTGAGGGGAAAAAAAATCAAATTTTACTGATAATAGTAATGCT  
CCAAATGAATTAATGACACATCTGTTCAATAAATAAAGAGCTTAAATATACAAAACATAAGAAATCTGGGCAACA

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**FIGURE 1352B**

AAACTTGTGGTCTTTACTTTTGAATAGCTACCCAAGAAAAGGTTTTAAAGGTAAAAGTTATGAGTAATGTCATCA  
CAATAAGCTCTTGTTTAAAATTCTTTTCTTTTATGTATAATTAGGTTTATGTTTCATGTCTTTTTAAAACCTTAT  
AAAAGATTTAATTATCACATCTATTCTTCAATGTGGAAATATTAAATATTGTTGGTTGTAAAATAATATTTATGT  
ACTTACTTGTGTCTGAAAAGTTGTAAAATGCTTACCTCAGCTATACAATATCTGTGACTCTGAAGACTTTAATGA  
GTACTATTTTATTAAACAAGAAGTCAGAGGCAAATAGAGGAACACCATTATCTTACTTCCCTCTAGAATACTGTTG  
AAACATTTGAAATACAAAAGTTTCAGTTTCATTTTGTGGCATTCAACTTCCTCTCCTCTTTTTCCGTTATTAGTG  
TTGCTGCTCTGGTTAGCC



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**FIGURE 1353**

GCTGTGAGTTGGCGTGCTAGTGGG**ATG**GCAGATGAGGAAGAAGACCCACGTTTGAGGAAGAAAATGAAGAAATT  
GGAGGAGGTGCAGAAGGTGGACAGGGTAAAAGAAAGAGACTTTTTCTAAAGAATTGCGATGTATGATGTATGGC  
TTTGGGGATGACCAGAATCCTTATACTGAGTCAGTGGATATTCTTGAAGATCTTGTCATAGAGTTTATCACTGAA  
ATGACTCACAAGGCAATGTCAATTGGAAGACAAGGTCGAGTACAAGTTGAAGATATCGTCTTCTTGATTGAAAG  
GACCCAAGGAAGTTTGCCAGGGTTAAAGACTTGCTTACTATGAATGAAGAATTGAAACGAGCTAGAAAAGCATT  
GATGAAGCAAATTATGGATCT**TGAC**ACTTTTTGTAGTTTCCGAAAATTACCATCTGGGGAAACCATATATAATAA  
TTGTATATTTCTAAAGTAAGATTCTGATATCTAGCCGAGATCGCACCCTGCACTCCAGCCTGGGCGACAGAGC  
GAGACTCCGTCTCAAAAAAAAAAAGAAAGCAAGTTTACATGAATAATGCTGTGTTGGAAGGCTTTTTGATT  
AAATCTTTTCGGATTTATAACATCCTGTAAAGTTTTAGGAGAACCCGTTTTCCCAGAGCAGATTCAAGCTTCTAA  
AAATAAATGCTTTCAGTAGCAGGAATGGCATTGTTAAAAAGCTGATGGCAGGGTAAGCATTGTTGGGTTAGTGTT  
TATTAACATATTTGTAAGTACTTGTTTCATTGTGGAAATGTGTCCTTGACTAAAACCATACGTGGCTATGGAAACC  
ATGTTTGTAGTTCTGAATACACAGGTTTTGTGTGTATTTACTCTATGTATTAAATTATTATTGCCCTTAGTTAA  
AGTAAGGATTACAATTGGATTTAAGTAGATCACTGAATGTTATTGTTTATGAACTTAACTTTTGTATGCTGCT  
TATAACATGATCTATAAATCAGTGCTTGGGAAAATTTACTTTCTTAATCTACTGATACAGGAATAAAATATGA  
ACAATTAAACAGATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1354**

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**FIGURE 1355**

ACGCCAAGGCGGCCACGTCCTGCTCCCCCTGGTGAAGAAGCTGCCCTGGGCTTGTCGTCCTAGGGTCTCCAGACA  
TGTCTGAGGTGAAGAGCCGGAAGAAGTCGGGGCCCAAGGGAGCCCCTGCTGCGGAGCCCGGAAGCGGAGCGAGG  
GCGGGAAGACCCCCGTGGCCCGGAGCAGCGGAGGCGGGGGCTGGGCAGACCCCGAACGTGCCTGAGCCTGCTGT  
CGCTGGGGACGTGCCTGGGCCTGGCCTGGTTTGTATTTACAGCAGTCAGAAAAATTTGCAAAGGTGGAAAACCAAT  
ACCAGTTACTGAACTAGAAACCAATGAATTCCAACAACCTCAAAGTAAAATCAGTTTAATTTAGAAAAGTGGC  
AGAAATCTGAAGCTATCATGGAACAATTGAAGTCTTTTCAAATAATTGCTCATCTAAAGCGTCTACAGGAAGAAA  
TTAATGAGGTAAAACTTGGTCCAATAGGATAACTGAAAAACAGGATATACTGAACAACAGTCTGACGACGCTTT  
CTCAAGACATTACAAAAGTAGACCAAAGTACAACCTCCATGGCAAAAGATGTTGGTCTCAAGATTACAAGTGTA  
AAACAGATATACGACGGATTTAGGTTTAGTAAGTATGTAATATCATTGACAGATTCTGTGCAAGAACTAGAAA  
ATAAAATAGAGAAAGTAGAAAAAATACAGTAAAAAATATAGGTGATCTTCTTTCAAGCAGTATTGATCGAACAG  
CAACGCTCCGAAAGACAGCATCTGAAAATTACAAAAGAAATTAAGTCTGTTAAGAAGACGCTAACCGAACTAAAG  
GTGACTTCGACAAACATACAGATAGATTTCTAAGCTTAGAAGGTGACAGAGCCAAAGTTCTGAAGACAGTGACTT  
TTGCAAAATGATCTAAAACCAAAGGTGTATAATCTAAAGAAGGACTTTTCCCGTTTAGAACCATTAGTAAATGATT  
TAACACTACGCATTGGGAGATTGGTTACCGACTTACTACAAAGAGAGAAAGAAATTGCTTTCTTAAGTGAAAAAA  
TATCTAATTTAACAATAGTCCAAGCTGAGATTAAGGATATTAAAGATGAAATAGCACACATTTAGATATGAATT  
AGTTTGACATTATTGAGATTAGACTAAGGTAATTTTTTTAATGGGACCTCTCATGAGAAGACTGGTAAATCAAAA  
ATAATGATATTTTGGAGCAAAGTCATTTTATATTTAATCCTATTTTGTACAGTAAAAATAAACTTTAAAGCAG  
GTTGATTTTCCAAAATAAATATGCTAAAACCTAAAAA

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**FIGURE 1356**

MSEVKSRKKS GPKGAPAAEPGKRSEGGKTPVARSSGGGGWADPRTCLSLSLGTCLGLAWFVFQQSEKFAKVENQ  
YQLLKLETNEFQQLQSKISLISEKWQKSEAIMEQLKSFQIIAHLKRLQEEINEVKTWSNRITEKQDILNNSLTTL  
SQDITKVDQSTTSMADVGLKITSVKTDIRRISGLVTDVISLTDVQELNKEKVEKNTVKNIGDLLSSSIDRT  
ATLRKTASENSQRINSVKKTLTELKSDFDKHTDRFLSLEGDRAKVLKTVTFANDLKPKVYNLKKDFSRLPLELVND  
LTLRIGRLVTDLLQREKEIAFLSEKISNLTIVQAEIKDIKDEIAHISDMN

## FIGURE 1357A

GGTGAGAAGCACTAGAAATATCCATTTCAGTTATTAGTGGGGATTAGGTTTCAGGTCTGTTGTTTAAAGGAGCCCTTA  
AACTTTAAATTTCAACACAGGAATGGAGGTCCCTGTGTAAGGATTGGGAATGGGACCTAATAACTGCTCCCTCAA  
GGTGAGTTGCGAGTCAGCTGGCCATCTCCATCTCCCATGCATTACCTTGATGTACCTTCCAGTCCACCATCTGCT  
TGTGCACCAGGCTGCACCTACTGTTCCATGATGGAAGGGAAGGTAGAAGTTGGGCTGGAAGGAGATGTTGGTCCA  
GATCTGGGTACATTTACCCCTTGTGGTACCTCTTGGGAGCAAGAAAGTCCAGGCCCTGGAGCCTTCCACTGACAA  
CTCTTGAAGGCCCACTCAACTGAAGCCTCACTGATAGCACTTTCATGAGATGCTGGTCAGGGAAGAGCTTCTGA  
TTTGGCCTAGGCTAGTGGCAGTGCCACCAGGCAATTGCTTAAAATCTTCTTCTGCCAAATTCTGTGATGTATTA  
AAGTATGCGATACATGAAAATTGAGAGTGGCTTTGGTTTTGTTGTAGGTCTGGATCTATTTACCTTTATTAAGCT  
CTGGAGACTGACATATGATATTTTTAGATGTATGAGTGCAGATTTATGGAGATATTGGTCTGGATTTAGTATGA  
GATGCTAAACCTGGTCCCCATTGTTCTCAAGGCCACTGCACCTGGCCGATAACAGATGTTTTAATAGTAAGATAA  
AAAGTAAAATTTCCAGTGTGTGGAAGGAAGAAAATTACAGCCTAGAAATTTATCTTCATGTACATTATTTAAGTG  
TGAGGGAATAGTTTCAGTGACATTATGTCATTGAAGACCTTAGAAGATTTCCCTCGCTAAAGGAGATAAAGCGAC  
TGGCACAACATGTATTTCTCTGAGTAAGTAGAAGTGTTCTTTTCTGGCTGTACTGAAGGGACTTTCATGATTTCT  
TCGTTTTTGTACTCTTAGTTTTATAATATTGCATAGTAGCTAAGGCCTGGCTGTAGCAGTTATAAACTGTTCTGC  
AAGTGCGGGAAGTAATAGTTATTCCTATCTCAAGGATGTGGGGTTTAAATGGGTTAGTGCACAAAAGGACATTTA  
TTAAATTTAGTCATAATCATCTCAAGGACATGGTAAGTGAAAGAGTGTACATAAAGTACTTAATGTAATGTTGCT  
ACTTAATGTTCAATAACTCAAAGAGACCACCACCTACTACATTTTACTTTTATTAGTAATTAATAATAATTAA  
TAATTAGTAATTCAGTGGAATTAGTATACTACCAAAGAAAGTACTTGAGCAGAAGAGCCAAAATTCAAACCATA  
GAATCATTTTACTGTGCTTTTATTCTACCTCAAACACTAATCTCCAGGCCTTGGATAAAGGGATTATTTCTCTGA  
AGGGGAAAAGTTATCCTCTTTTTGCCCCAAGTCACACTTGTGTCAATTTCTTATACTGTAAACATGTGGTTCCAATTC  
TGAGGTATTTTCCCGGCTTGTAGGACCCAAAAGAAGTTAGGCTTGAGAAATTTAAGTGAAGAGAACAATTCTA  
GTTTCAGAGTGATTGGCTCTTCCTAAAAGCTGACATTTGACTGAAAATTTTGAGGGGAGGGAAAGAAACAATACCT  
TTTACGGCATGTAATAGGAAGAAGACCTGGATTTTAGTTGCTGCTCTGATGTCCCAACTTGGGTAAGGCAACATA  
ACATAAATGTCAGTTTCTTCAGATTTGTGATGAAGCTGATAATCCATGCTCAGCTTCCTTTATGGGTCTCTTGCC  
TATCAAATAAGGTACAGTATGTGAAGATACATTGCAGATTATCTTATGCATTGCTTCAGGGGATGATTAAACCAT  
CCTTTATTATAGCCAGAGTCTAGTCTAAGGGAAGAAGGTCATTCTCTATACCAGTGAAGGCTCCATCCAAACCAG  
TGTTTGGGGGCATAGTCATAATTGAAAATGATTGTTTTCTTATCTGTAAACAGGTAAATGGTATTAATCCTC  
AGGTGGTTGTGAGGATTAAGTGATACATGTAAAAAAGAAAGCTTTGGATAGTACCTATTATAAGAACTCAGT  
GTTGCTGCAATGTATGTATTATAATGGATTTGAAATTTGCCCTAACCAAGAGTCACAGACAGAAAAAGGAAGTT  
AATGTATCTCTTGATCACTATCAAGATGTGGTATTGAACCTTCAAGATCCTTTTCAGGGAATATGTGAGATCAAA  
ATTTTATACTGGCACTATGATGTTATTTGCCTTTTCTCATATTCACAAGTGAACAGTGGAGTTTTACAGAAGC  
TATATAATGTCATGACATCACTGATGGGTAATAGAATGTGTGCTTGTATATTCCGAACTTTCAGTTCCAATTTT  
TTCGATCAATGTAATCCTCATAAGTAAAAGTTATTTGAGGACCTCAGACATTTTAAAAATGTAAAGGGGGTGGN  
NN  
NN  
NN  
NN  
NN  
TATATTTGACAACCTTGGTATGTAGGATGTGCTACCTCTAATGTTCCATGCTGTTACTTAGTTTTCACTCACTACT  
ATATTTTGGAGATTTGTTTCATATTGCTCTGTGTACATTTAATCTTCAGTGTGTATCCACCACATTTAACTTATT  
CACTTACAGAACTATGCAAGAATTTCTCTGGTAAATTTCACTAAGTACTTATGTACTTTTCAGAACGATTGTGAG  
TTTACACCCCTACCAGCAGGACTGAGTTGAGTACCCATTTCTCCTCATCCTTGCCAGTACTTCATTTGCCTAATT  
TTTGGCATTCTCATAATGTGGCAATTGTTCAATTTTGCATTTCTTCCATTTTATTTTTTGCATCTCTGCTTTTC  
TTTTGGTTAGCTTTGCCAGTTCTGCCTATTATATTAATCTCCCAGAAATCAGCTTTTAGTTTGTAAATCTCTGA  
CATGTTTCGTTGATTCCCTGCTTTCATCTTAAACATTTCTTCGTTGTTAATTTGTGTTTGCTATAAAATAAGCAAC  
ATCTTAAATGCTTGATTTGCTTTCGATGTTTATTCTGTAAATAAGATATTTAAAGATATAATTTTTCCCTAAATG  
CTTTATTAGACTTTTCTCATAAGTTTTGACTGGTACTGTTTTCAATTGTTATTTAATTTTGTGTTTTTAACCTCT  
TTCATGATTTCTTTTAACTGAAGGTTTTCTTAGATATTTAGTTTGTGTTATTTCTTTTAAATTTGTATCATT  
GCTTTCTTTCTATATTGGATTATTGTGAGAGAACATGATTTGCATGATATTAACCTTTTGGAGTATATTGTTGCA

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**FIGURE 1357B**

TCTTTGTGGCCTAGTACATAGTTAATTTAGTGAATGCTTCCAGTTGTACTTGAAAAGAATGTATATTTTCTGATT  
ATTGAGGGTAAATTTCTCTATATATGTTTTCTGTTTAATAAATATGTAGCTATGTGCTTATGAAA

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**FIGURE 1358**

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**FIGURE 1359**

CCGCAGAACTTGGGGAGCCGCCGCCCATCCGCCGCCGACCCAGCTTCCGCCGCCGACGACCGGCCCTGCC  
CCAGCCTCCGCAGCCGCGGCGCGTCCACGCCCGCCCGCGCCAGGGCGAGTCGGGGTCGCCGCTGCACGCTTCT  
CAGTGTTCCTCCGCGCCCCGCATGTAACCCGGCCAGGCCCCCGCAACGGTGTCCCCTGCAGCTCCAGCCCCGGGT  
GCACCCCCCGCCCCGACACAGCTCTCCAGCCTGCTCGTCCAGGATGCCGCGGCCAAGGCCGAGATGCAGCTG  
ATGTCCCCGCTGCAGATCTCTGACCCGTTCCGGATCCTTTCCTCACTCGCCACCATGGACAACCTACCCTAAGCTG  
GAGGAGATGATGCTGCTGAGCAACGGGGCTCCCCAGTTCTCGGCCGCCGGGGCCCCAGAGGGCAGGGGCAGC  
AACAGCAGCAGCAGCAGCAGCGGGGGCGGTGGAGGCGGCGGGGGCGGCAGCAACAGCAGCAGCAGCAGCAGCACC  
TTCAACCCCTCAGGCGGACACGGGCGAGCAGCCCTACGAGCACCCTGACCGCAGAGTCTTTTCTGACATCTCTCTG  
AACAACGAGAAGGTGCTGGTGGAGACCAGTTACCCAGCCAAACCACTCGACTGCCCCCATCACCTATACTGGC  
CGCTTTTCCCTGGAGCCTGCACCCAACAGTGGCAACACCTTGTGGCCCCGAGCCCTCTTCAGCTTGGTCAGTGGC  
CTAGTGAGCATGACCAACCCACCGGCCTCCTCGTCTCAGCACCATCTCCAGCGGCCTCCTCCGCTCCGCTCC  
CAGAGCCACCCCTGAGCTGCGCAGTGCCATCCAACGACAGCAGTCCCATTACTCAGCGGCACCCACCTTCCCC  
ACGCCGAACACTGACATTTTCCCTGAGCCACAAAGCCAGGCCTTCCCGGGCTCGGCAGGGACAGCGCTCCAGTAC  
CCGCTCCTGCCTACCCTGCCGCCAAGGGTGGCTTCCAGGTTCCCATGATCCCCGACTACCTGTTTCCACAGCAG  
CAGGGGGATCTGGGCCTGGGCACCCAGACCAGAAGCCCTTCCAGGGCCTGGAGAGCCGCACCCAGCAGCCTTCG  
CTAACCCCTCTGTCTACTATTAAGGCCCTTGGCACTCAGTCGGGCTCCAGGACCTGAAGGCCCTCAATACCAGC  
TACCAGTCCCAGCTCATCAACCCAGCCGCATGCGCAAGTATCCAACCGGCCAGCAAGACGCCCCCCCCACGAA  
CGCCCTTACGCTTGCCAGTGGAGTCTGTGATCGCCGCTTCTCCCGCTCCGACGAGCTCACCCGCCACATCCGC  
ATCCACACAGGCCAGAAGCCCTTCCAGTGCCGCATCTGCATGCGCAACTTCAGCCGCAGCGACCACCTCACCACC  
CACATCCGCACCCACACAGGCGAAAAGCCCTTCGCCTGCGACATCTGTGGAAGAAAGTTTGCAGGAGCGATGAA  
CGCAAGAGGCATACCAAGATCCACTTGCGGCAGAAGGACAAGAAAGCAGACAAAAGTGTGTGGCCTCTTCGGCC  
ACCTCCTCTCTCTCTTCTTACCCGTCCCCGGTTGCTACCTCTTACCCGTCCCCGGTTACTACCTCTTATCCATCC  
CCGGCCACCACCTCATACCCATCCCCTGTGCCCACCTCCTTCTCCTCTCCCGCTCCTCGACCTACCCATCCCCT  
GTGCACAGTGGCTTCCCCTCCCCGTGGTGGCCACCACGTACTCCTCTGTTCCTCCTGCTTTCCCGGCCAGGTC  
AGCAGCTTCCCTTCTCAGCTGTACCAACTCCTTCAGCGCCTCCACAGGGCTTTCGGACATGACAGCAACCTTT  
TCTCCAGGACAATTGAAATTTGCTAAAGGGGAAAGGGGAAAGAAAGGGGAGAAAAAGAAACACAAGAGA  
CTTAAAGGACAGGAGGAGGAGATGGCCATAGGAGAGGAGGGTTCTCTTAGGTGAGATGGAGGTTCTCAGAGCCA  
AGTCCCTCCCTCTCTACTGGAGTGGAAAGGTCTATTGGCCAACAATCCTTTCTGCCACTTCCCCCTTCCCCAATTAC  
TATTCCCTTTGACTTCAGCTGCCTGAAACAGCCATGTCCAAGTTCTTCACCTCTATCCAAAGAACTTGATTGCA  
TGGATTTTGGATAAATCATTTCAGTATCATCTCCATCATATGCCTGACCCCTTGCTCCCTTCAATGCTAGAAAAT  
CGAGTTGGCAAAATGGGGTTTGGGCCCCCTCAGAGCCCTGCCCTGCACCCCTGTACAGTGTCTGTGCCATGGATTT  
CGTTTTTCTTGGGGTACTCTTGATGTGAAGATAATTTGCATATTCTATTGTATTATTTGGAGTTAGGTCTCACT  
TGGGGGAAAAAAAAAAAAAAAAAGCCAAGCAAACCAATGGTGATCCTCTATTTTGTGATGATGCTGTGACAATAAG  
TTTGAACCTTTTTTTTTTGAACAGCAGTCCCAGTATTCTCAGAGCATGTGTGAGAGTGTGTTCCGTTAACCTTT  
TTGTAAATACTGCTTGACCGTACTCTCACATGTGGCAAAATATGGTTTGGTTTTTCTTTTTTTTTTTGAAAGTG  
TTTTTCTTCGTCTTTTTTGGTTTAAAAAGTTTACGTCCTTGGTGCCTTTTGTGTGATGCCCCCTTGCTGATGGCTT  
GACATGTGCAATTGTGAGGGACATGCTCACCTCTAGCCTTAAGGGGGGAGGGAGTGATGATTTGGGGGAGGCTT  
TGGGAGCAAAATAAGGAAGAGGGCTGAGCTGAGCTTCGGTTCTCAGAATGTAAGAAAACAAAATCTAAAAACAA  
ATCTGAACTCTCAAAAGTCTATTTTTTTAACTGAAAATGTAAATTTATAAATATATTACAGGAGTTGGAATGTTGT  
AGTTACCTACTGAGTAGGCGGCGATTTTTTGTATGTTATGAACATGCAGTTCATTATTTTGTGGTTCTATTTTACT  
TTGTACTTGTGTTTGCTTAAACAAAGTGACTGTTTGGCTTATAAACACATTGAATGCGCTTTATTGCCCATGGGA  
TATGTGGTGTATATCCTTCCAAAAAATTAACGAAAATAAAGTAGCTGCGATTGGG



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**FIGURE 1360**

MAAAKAEMQLMSPLQISDPFGSFPHSPTMDNYPKLEEMMLLSNGAPQFLGAAGAPEGSGSNSSSSSSGGGGGGG  
GSNSSSSSSTFNPQADTGEQPYEHLTAESFPDISLNNEKVLVETSYPSTTRLPPITYTGRFSLEPAPNSGNTLW  
PEPLFSLVSGLVSMTNPPASSSSAPSPAASSASASQSPPLSCAVPSNDSSPIYSAAPTFTPNTDIFPEPQSQAF  
PGSAGTALQYPPPAYPAAKGGFQVPMIPDYLFPQQQDLGLGTPDQKPFQGLSRTQQPSLTPLSTIKAFATQSG  
SQDLKALNTSYQSQLIKPSRMRKYPNRPSKTPPHERPYACPVESCDRRFSRDELTRHIRIHTGQKPFQCRICMR  
NFSRSDHLTTHIRHTGEKPFACDICGRKFARSDEKRRHTKIHLRQKDKKADKSVVASSATSSLSSYPSPVATSY  
PSPVTTSYPSPATTSYPSPVPTSFSSPGSSTYSPVHSGFSPSPSVATTYSSVPPAFPAQVSSFPSSAVTNSFSAS  
TGLSDMTATFSPRTIEIC

## FIGURE 1361

GGCACAGGGCTGTGACTAGCGGGCCGGCCCGGGCCAGGACAGCGGGCGGGCGGGCGGGCGGGCTGGCCCCGGGA  
**TGG**CTATGTTCCGCAGCCTGGTGGCCTCGGCTCAGCAGCGGCAGCCGCCGGCCGGCCGGCGGGCGGCAGACAGCG  
GCCTGGAGGCGCAGTACACCTGCCCCATCTGCCTGGAGGTCTATCACCGGCCCGTGGCCATCGGCAGCTGCGGCC  
ACACGTTCTGCGGGGAGTGTCTCCAGCCCTGCCTGCAGGTGCCATCCCCGCTGTGCCCACTGTGCCGCCTGCCCT  
TCGACCCCCAAGAAGGTGGACAAGGCCACCCACGTGGAGAAGCAGCTCTCATCCTACAAAGCGCCCTGTGAGGGCT  
GCAACAAAAAAGGTGACCCTGGCAAAGATGAGAGTGCACATTTTCGTCTGCCTGAAGGTCCAGGAGCAGATGGCCA  
ACTGCCCCAAGTTCGTCCCCGTGGTGGCCACATCACAGCCTATCCCCAGCAACATCCCCAACAGGTCCACCTTCG  
CCTGCCCCGTACTGTGGTGGCCGAACCTGGACCAGCAGGAGCTGGTGAAGCACTGTGTGGAAAGCCACCGCAGCG  
ACCCCAACCGCGTGGTGTGCCCCATCTGCTCGGCAATGCCCTGGGGGGACCCAGCTACAAGAGCGCCAACTTCC  
TGCAGCACCTGCTTCACCGACACAAGTTCTCCTACGACACCTTTGTGGACTACAGTATTGACGAGGAGGCCCGCT  
TCCAGGCTGCTCTGGCCCTGTCTCTCTCTGAGAAC**TGA**AGGGAAGCGCAGCCACCCGCCTGCGTCTGGGGTCAGG  
GATGTCCCCGCTCCTGTGTGCGACCTGGCACCTGCTCGGGAGCGCACCTCACCGGACTGAGCTCACAGGAGGAGC  
CTGCACCCGCGCAGAAGGGGAGCCGGGGCCGAGCCTCCGGGCCTGAATACGGGCCAGCCGCCGAGGCCGCCAGAG  
CAGGGCCCGCCTGGTCCCACCGGCGTCTGCTGGGTTCTTCGGTGCTTCTGGCCGAGCAGGCGGCCTACTTGGGCAGG  
GCTGGACGCTGGGACCTGGAGCTGCCGCCGTCTCTCAAAGCCATGATACCCCTCGTGGGAAGAAGGGACCGAC  
GCGCGAGTCGCGCTCCGCAGTCGAGCCGGGAGGAACCCAGGCTGCTGCCCTGCCAGCCCGACCCTGCCCCGGCC  
CCGCTTCCACCTTGCGCATTTGGTACTGGCTTTTGTGATACTTAGGAACCCTGGCATCTTTTCTATATTATCCAG  
TGTGATAATCTTTTACGTTTTATAGAGCAAAGACAGAGCAGTTACTCTTCATATTGCAATATCTGTGTTTACT  
AGGAATAATAGTATTTTTATGGAACATTTACAAAATTATATTTTTTAAGAAAACAATCAAAACAAGCATTGGGGG  
ATTGGGGCAAGGATGGAAGGAGCAGTGGGGCAGCTGCCAGAGCTCAGGCGAGCCATGGGGTCTGCTGTGGGGTCT  
GCCCTGGCCACCCACTGTGTGTCTGGGTCTTGAGGTTTGTACGTTTCTCTTTGATGACCAGGAAGAAATCCCAG  
CACCCAGCCACAGGCTGTGGCTGCTCCCAGCAGAGGTGGGGCCGGCAGAGAAGGGGCCTCCTCCACCCAGAGTC  
CTGGCCTTGGCCCGCTGTACCTTCAAAGCTGACTGTGCCCGCTGCGGGAGGGGACGGCACCCAGTGGTGGCA  
GAGCTTGGGGGCCTGGGCAGGGGCCCGCTTGGCGGGCCGGGCAACACGTCAACATTCTTTTCTGTTCTTGGCATT  
AATTATTGCTGTCTTTTTTAAAAAAGTTTAAATAAAATGTCTCAGAGCAAAAAAAAAAAAAAAAAAAAAA  
AAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1362**

MAMFRSLVASAQQRQPPAGPAGGDSGLEAQYTCPICLEVYHRPVAIGSCGHTFCGECLOPCLQVPSPLCPLCRLP  
FDPKKVDKATHVEKQLSSYKAPCRGCNKKVTLAKMRVHISSCLKVQEQMANCPKFVPVVPTSQPIPSNIPNRSTF  
ACPYCGARNLDQQELVKHCVESHRSDPNRVVCPICSAMPWGDP SYKSANFLQHLLHRHKFSYDTFVDYSIDEEAA  
FQAALALSLEN

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**FIGURE 1363**

TTGAGCGCAGGTGAGCTCCTGCGCGTTCCGGGGGCGTTCCCTCCAGTCACCCCTCCCGCCGTTACCCGCGGCGCGCC  
CGAGGGAGTCTCCTCCAGACCCCTCCCTCCCGTTGCTCCAACTAATACGGACTGAACGGATCGCTGCGAGGGTGG  
GAGAGAAAATTAGGGGGAGAAAGGACAGAGAGAGCAACTACCATCCATAGCCAGATAGATTATCTTACACTGAAC  
TGATCAAGTACTTTGAAAATGACTTCGAAATTTATCTTGGTGTCTTTCATACTTGTGCACTGAGTCTTTCAACC  
ACCTTTTCTCTCCAAC TAGACCAGCAAAAGGTTCTACTAGTTTCTTTTGATGGATTCCGTTGGGATTACTTATAT  
AAAGTTCCAACGCCCATTTTCATTATATTATGAAATATGGTGTTCACGTGAAGCAAGTTACTAATGTTTTTATT  
ACAAAAACCTACCCTAACCATTATACTTTGGTAACTGGCCTCTTTGCAGAGAATCATGGGATTGTTGCAAATGAT  
ATGTTTGATCCTATTTCGGAACAAATCTTTCTCCTTGGATCACATGAATATTTATGATTCCAAGTTTTGGGAAGAA  
GCGACACCAATATGGATCACAAACCAGAGGGCAGGACATACTAGTGGTGCAGCCATGTGGCCCGGAACAGATGTA  
AAAAATACATAAGCGCTTTTCTACTCATTACATGCCTTACAATGAGTCAGTTTCATTTGAAGATAGAGTTGCCAAA  
ATTGTTGAATGGTTTACGTCAAAGAGCCCATAAATCTTGGTCTTCTCTATTGGGAAGACCCTGATGACATGGGC  
CACCATTGTTGGGACCTGACAGTCCGCTCATGGGGCCTGTCAATTCAGATATTGACAAGAAGTTAGGATATCTCATA  
CAAATGCTGAAAAAGGCAAAGTTGTGGAACACTCTGAACCTAATCATCACAAGTGATCATGGAATGACGCAGTGC  
TCTGAGGAAAGGTTAATAGAACTTGACCAGTACCTGGATAAAGACCCTATACCCTGATTGATCAATCTCCAGTA  
GCAGCCATCTTGCCAAAAGAAGGTAAATTTGATGAAGTCTATGAAGCACTAAGTACGCTCATCCTAATCTTACT  
GTTTACAAAAAAGAAGACGTTCCAGAAAGGTGGCATTACAAATACAACAGTCAATTCACCAATCATAGCAGTG  
GCTGATGAAGGGTGGCACATTTTACAGAATAAGTCAGATGACTTTCTGTTAGGCAACCACGGTTACGATAATGCG  
TTAGCAGATATGCATCCAATATTTTTAGCCCATGGTCTGCTTCAGAAAGAATTTCTCAAAGAAGCCATGAAC  
TCCACAGATTTGTACCCACTACTATGCCACCTCCTCAATATCACTGCCATGCCACACAATGGATCATTCTGGAAT  
GTCCAGGATCTGCTCAATTCAGCAATGCCAAGGGTGGTCCCTTATACACAGAGTACTATACTCCTCCCTGGTAGT  
GTTAAACCAGCAGAATATGACCAAGAGGGGTCATACCCTTATTTCATAGGGGTCTCTCTTGGCAGCATTATAGTG  
ATTGTATTTTTTTGTAATTTTCATTAAGCATTTAATTCACAGTCAAATACCTGCCTTACAAGATATGCATGCTGAA  
ATAGCTCAACCATTATTACAAGCCTAATGTTACTTTGAAGTGGATTGTCATATTGAAGTGGAGATTCCATAATTA  
TGTCAGTGTTTAAAGGTTTCAAATCTGGGAAACCAGTTCCAAACATCTGCAGAAACCATTAAGCAGTTACATAT  
TTAGGTATACACACACACACACACACACATACACACACACGACCAAAATACTTACACCTGCAAAGGAATAAA  
GATGTGAGAGTATGTCTCCATTGTTCACTGTAGCATAGGGATAGATAAGATCCTGCTTTATTTGGACTTGGCGCA  
GATAATGTATATATTTAGCAACTTTGCACTATGTAAAGTACCTTATATATTGCACTTTAAATTTCTCTCCTGATG  
GGTACTTTAATTTGAAATGCATTTTATGGACAGTTATGTCTTATAACTTGATTGAAAATGACAACCTTTTGCACC  
CATGTCACAGAATACTTGTACGCATTGTTCAAACCTGAAGGAAATTTCTAATAATCCCGAATAATGAACATAGAA  
ATCTATCTCCATAAATTGAGAGAAGAAGAAGGTGATAAGTGTGAAAATTAATGTGATAACCTTTGAACCTTGA  
ATTTTGGAGATGTATTCCCAACAGCAGAATGCAACTGTGGGCATTTCTTGTCTTATTTCTTTCCAGAGAACGTGG  
TTTTCAATTTATTTTCCCTCAAAGAGAGTCAAATACTGACAGATTCTGTTCTAAATATATTGTTTCTGTCTATAAA  
ATTATTGTGATTTCTGTAGTCATATTACTGTGATTTTCATAATAATGAAGACACCATGAATATACTTTTCTT  
CTATATAGTTCAGCAATGGCCTGAATAGAAGCAACCAGGCACCATCTCAGCAATGTTTTCTTGTGTTGTAATTA  
TTTGCTCCTTTGAAAATTAATCACTATTAATTACATTAATAATCAAATTGGATAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1364**

MTSKFILVSFILAALSLSTTFSLQLDQQKVLVVSFDGFRWDYLYKVPTPHFHYIMKYGVHVKQVTNVFITKTYPN  
HYTLVTGLFAENHGIVANDMFDP IRNKSFSLDHMNIYDSKFWEEATPIWITNQRAGHTSGAAMWPGTDVKIHKRF  
PTHYMPYNESVSFEDRVAKIVEWFTSKEP INLGLLYWEDPDDMGHHLGPDSPLMGPVISDIDKKLGYLIQMLKKA  
KLWNTLNLIITSDHGMTQCSEERLIELDQYLDKDHYTELIDQSPVAAILPKEGKFDEVYEALTHAHPNLTVYKKED  
VPERWHYKYNSRIQPIIAVADEGWHLQNKSDDFLLGNHGYDNALADMHP IFLAHGPAFRKNFSKEAMNSTDLYP  
LLCHLLNITAMPHNGSFWNVQDLLNSAMPRVVPYTQSTILLPGSVKPAEYDQEGSYPYFIGVSLGSIIVIVFFVI  
FIKHLIHSQIPALQDMHAEIAQPLLQA

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**FIGURE 1365**

GAATCTCTCGCGGGCAGCAGGGCGCGCGCTGCACGCACAGTACTAGGTCAGGTGGTGTCTCCCGGGTGAGGAGCTG  
CTCCTGCCGGAACAGGAGGACGCGGAAGGCCCTGGGGGTGCAGTGGAGCGACCGTTGAGCCTGAATGCTAGAGCG  
TGCTCGCGGGTGCGCGTTTGTATGCGGTCCGGGCCTTCGACGCTGTGGGGACCGCCTGCTGGTCACCAAGTGCGG  
CCGCCTCCGTCACAAGGAGCCCGGCAGTGGAGGCGGCGGCGGTGTTTACTGGGTGGACTCTCAGCAGAAGCGGTA  
TGTTCCAGTAAAAGGAGACCATGTGATTGGCATAGTGACAGCTAAATCTGGAGATATATTCAAAGTTGATGTTGG  
AGGGAGTGAGCCAGCTTCTTTGTCTTACTTGTTCATTTGAAGGTGCAACTAAAAGAAACAGACCAAATGTGCAGGT  
TGGAGATCTCATCTATGGCCAGTTTGTGGTTGCTAATAAAGACATGGAACCAGAGATGGTCTGTATTGACAGCTG  
TGGACGAGCCAAATGGAATGGGTGTCATTGGACAGGATGGTCTGCTTTTTAAAGTGACTCTGGGCTTAATTAGAAA  
GCTATTAGCTCCAGATTGTGAAATCATACAGGAAGTGGGAAAACTCTATCCACTGGAGATAGTATTTGGAATGAA  
TGGAAGAATATGGGTTAAGGCAAAAACCATCCAGCAGACTTTAATTTTGGCAAACATTTTAGAAGCTTGTGAACA  
CATGACGTCAGATCAAAGAAAACAGATCTTCTCCAGATTGGCAGAAAAGTTGATTATAGGTGGACTTTTTTACAGGT  
CAGTTGAGGCAAAAACTATGGGTTTTTTTCAGGTGAACCTCCCCCATTTAAATACTCAGAAGATAAGGTGTGAAT  
GTATGTATTATTAGAGTCCGAAAGTATTTTTATAAGTTACTGGTTTTTACCCACGCTTTTGTGGGAGAGAAAATC  
ATTGCAAAATCATTTTTTTTTGTTTCGGTACAATAAAGTTTACTAAAAAACAAA

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**FIGURE 1366**

MLERARGCAFVCGPGLRRCGDRLLVTKCGRLRHKEPGSGGGGGVYWVDSQQKRYVPVKGDHVGIVTAKSGDIFK  
VDVGGSEPASLSYLSFEGATKRNRPNVQVGDLIYQFVVANKDMEPEMVCIDSCGRANGMGVIGQDGLLFKVTLG  
LIRKLLAPDCEIIQEVGKLYPLEIVFGMNGRIWVKAKTIQQTLILANILEACEHMTSDQRKQIFSRLAES

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**FIGURE 1367**

GGCACGAGGTGATGAAGAAGCCAGTTATCTCAGATTTGAAATAGTATATGGAAAAATGAAGAAGAGAAAGTGGA  
AATTTTTCATCCTTTGCGACTAGTTCGGGATCCACTGTCACCTGCTGTAAGACAGAAAGAACTGTGAAAAATGA  
CCTGCCTGTAAATGAAGCTGCAATTAGAAAAATAGCTGCCCTTGAAATGAGCTGACTTTTCTTCGCTCTCAGAT  
TGCAGCAATTGTGGAAATGCAGGAAGTAAAAATAGTACAAATTCTAGTTCCTTTGGCTTGAGTGACGAGCGCAT  
TAGTTTGGGTCAGCTGTCATCATCGCGGGCTGCCCATCTGAGTGTGGACCCAGATCAGCTTCCAGGTTCAAGTGCT  
TTCTCCTCCTCCTCCTCCACCACTTCTCCTCAGTTTTTCATCTCTCCAGCCACCGTGTTTTCTTCCCGTACAACC  
AGGATCTAATAATATTTGTGACTCAGATAATCCAGCAACTGAAATGAGCAAACAGAACCCGGCTGCTAATAAGAC  
CAATTATAGTCATCATTCAAAAAGCCAGAGAAATAAAGATATTCCAAACATGTTGGACGTTCTAAAGGATATGAA  
TAAGTTAAGCTTCGTGCAATTGAGCGGTCACCTGGCGGTAGACCCATTTCATAAGAGGAAAAGACAGAATTCACA  
TTGGGATCCAGTTTCTTTAATATCTCATGCACCTTAAACAGAAATTTGCATTTCAAGAAGATGATTCTTTTGAGAA  
AGAGAATAGATCTTGGGAATCTTCCCCATTTTCTAGTCCAGAACTTCAAGGTTTGGACATCACATTTACAGTC  
AGAAGGACAGCGAACTAAAGAAGAAATGGTCAACACAAAAGCTGTTGACCAAGGTATCAGCAACACAAGCCTTCT  
AAACTCAAGGATTTAACTCAACTTAAGGTTGAGCTTTAACTTCCAAAACCTTCTTCTGGATGATAAATTATTC  
TTAGAACTGATTTGGACTGTTAAAGGCTAAAAGTAGATGTATTTAAAGACTCTTCTTGACACATTTTGCCTACA  
CTTGCTATGTAAATATGTATGCCTGTCATTTTTGTTTCTTTGTTTCTTTTACGTTTATACTCTGTTCTTCTGT  
ACATAGAGCTTAAATAAACATTCTTTTTGAACTTGAAAAAAAAAAAAAAAAAAAA



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**FIGURE 1368**

MQELKNSTNSSSFGLSDERISLGQLSSSRAAHLSDPDQLPGSVLSPPPPPLPPQFSSLQPPCFPPVQPGSNNI  
CDSDNPATEMSKQNPAAANKTNYSHHSKSQRNKDIPNMLDVLKDMNKVKLRAIERSPGGRPIHKRKRQNSHWDPS  
LISHALKQKFAFQEDDSFEKENRSWESSPFSSPETSFRFGHHISQSEGQRTKEEMVNTKAVDQGISNTSLNSRI

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**FIGURE 1369**

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**FIGURE 1370**

MTMETVESQHDGSITASLTESKSAHVQTQTGQNSIPALAQVAAIAETDESAESEGVIDSHKRREILSRRPSYRKI  
LNELSSDVPGVPKIEERSEEEGTPPSIATMAVPTSIYQTSTGQYSMYAAIRYDTVLALSL

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**FIGURE 1371**

GGGGGTGGCGGGGACGCGAGTGGCGGCCGCGGGGCCCCGGACAAGGGTCCGCAGAGCTGCAGCCTTCGAGGGCCA  
 GCCCTCTCCGAGTCCGGGGCTGGGTCCCACCAAGTGACAAGGCGGCAGCCCCGCGCACACCAAAGAGAAAGCGGCT  
 GTGGCGGCAGCGGCAGCCCCAGCC**ATG**CTGTGTTATGTGACGAGGCCGGACGCGGTGCTGATGGAGGTGGAGGTG  
 GAGGCGAAAGCCAACGGCGAGGACTGCCTCAACCAGGTGTGCAGGCGACTGGGAATCATAGAAGTTGACTATTTT  
 GGACTGCAATTTACGGGTAGCAAAGGTGAAAGTTTATGGCTAAACCTGAGAAACCGGATCTCCCAGCAGATGGAT  
 GGGCTAGCCCCCTTACAGGCTTAAACTTAGAGTCAAGTTCTTCGTGGAGCCTCATCTCATCTTACAGGAGCAGACT  
 AGGCATATCTTTTTCTTGACATCAAGGAGGCCCTCTTGGCAGGCCACCTCTTGTGTTCCCCAGAGCAGGCAGTG  
 GAACTCAGTGCCCTCCTGGCCCAGACCAAGTTTGGAGACTACAACCAGAACACTGCCAAGTATAACTATGAGGAG  
 CTCTGTGCCAAGGAGCTCTCCTCTGCCACCTTGAACAGCATTGTTGCAAAACATAAGGAGTTGGAGGGGACCAGC  
 CAGGCTTCAGCTGAATACCAAGTTTTGCAGATTGTGTGGCAATGGAAAACATATGGCATAGAATGGCATTCTGTG  
 CGGGATAGCGAAGGGCAGAGACTGCTCATTGGGGTTGGACCTGAAGGAATCTCAATTTGTAAAGATGACTTTAGC  
 CCAATTAATAGGATAGCTTATCCTGTGGTGCAGATGGCCACCCAGTCAGGAAAGAATGTATATTTGACGGTCACC  
 AAGGAATCTGGGAACAGCATCGTGCTCTTGTTTAAATGATCAGCACCAGGGCGGCCAGCGGGCTCTACCGAGCG  
 ATAACAGAGACGCACGCATTCTACAGGTGTGACACAGTGACCAGCGCCGTGATGATGCAGTATAGCCGTGACTTG  
 AAGGGCCACTTGGCATCTCTGTTTCTGAATGAAAACATTAACCTTGGCAAGAAATATGTCTTTGATATTTAAAGA  
 ACATCAAAGGAGGTGTATGACCATGCCAGGAGGGCTCTGTACAATGCTGGCGTTGTGGACCTCGTTTCAAGAAGC  
 AACCAGAGCCCTTCACACTCGCCTCTGAAGTCCTCAGAAAGCAGCATGAACTGCAGCAGCTGCGAGGGCCTCAGC  
 TGCCAGCAGACCCGGGTGCTGCAGGAGAAGCTACGCAAGCTGAAGGAAGCCATGCTGTGCATGGTGTGCTGCGAG  
 GAGGAGATCAACTCCACCTTCTGTCCCTGTGGCCACACTGTGTGCTGTGAGAGCTGCGCCGCCAGCTACAGTCA  
 TGTCCCGTCTGCAGGTGCGGTGTGGAGCATGTCCAGCACGTCTATCTGCCAACGCACACCAGTCTTCTCAATCTG  
 ACTGTAATC**TAA**CTGTGTTGTGCTTTTGTGGACTTGGCATGTTTCCATGAACTGCACTATTATAAACTATTAAAA  
 TGATAGATGTTGGAGAAAGTAATTATTCCAACACCCATCTGCCCATGCGATGTTAAAAA

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**FIGURE 1372**

MLCYVTRPDAVLMEVEVEAKANGEDCLNQVCRRLGIIIEVDYFGLQFTGSKGESLWLNLRNRISQQMDGLAPYRLK  
LRVKFFVEPHLILQEQRHIFFLHIKEALLAGHLLCSPEQAVELSALLAQTKFGDYNQNTAKYNYEELCAKELSS  
ATLNSIVAKHKELEGTSQASAEYQVLQIVSAMENYGIEWHSVRDSEGQRLLIGVGPEGISICKDDFSPINRIAYP  
VVQMATQSGKNVYLTVTKEGNSIVLLFKMISTRAASGLYRAITETHAFYRCDTVTSAVMMQYSRDLKGHLASLF  
LNENINLGKKYVFDIKRTSKEVYDHARRALYNAGVVDLVSRSNQSPSHSPLKSSESSMNCSSCEGLSCQQTRVLQ  
EKLRKLKEAMLCMVCCEEEINSTFCPCGHTVCCESCAAQLQSCPVCRSRVEHVQHVVYLPHTSLNLTVI

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**FIGURE 1373**

ACATGACGGGCACGCCAGGCGCCGTTGCCACCCGGGATGGCGAGGCCCCCGAGCGCTCCCCGCCCTGCAGTCCGA  
GCTACGACCTCACGGGCAAGGTGATGCTTCTGGGAGACACAGGCGTCGGCAAAACATGTTTCCTGATCCAATTCA  
AAGACGGGGCCTTCCTGTCCGGAACCTTCATAGCCACCGTCGGCATAGACTTCAGGAACAAGGTGGTGACTGTGG  
ATGGCGTGAGAGTGAAGCTGCAGATCTGGGACACCGCTGGGCAGGAACGGTTCGGAAGCGTCACCCATGCTTATT  
ACAGAGATGCTCAGGCCTTGCTTCTGCTGTATGACATCACCAACAAATCTTCTTTCGACAACATCAGGGCCTGGC  
TCACTGAGATTTCATGAGTATGCCCAGAGGGACGTGGTGATCATGCTGCTAGGCAACAAGGCGGATATGAGCAGCG  
AAAGAGTGATCCGTTCCGAAGACGGAGAGACCTTGCCAGGGAGTACGGTGTTCCCTTCCTGGAGACCAGCGCCA  
AGACTGGCATGAATGTGGAGTTAGCCTTTCTGGCCATCGCCAAGGAACTGAAATACCGGGCCGGGCATCAGGCGG  
ATGAGCCCAGCTTCCAGATCCGAGACTATGTAGAGTCCCAGAAGAAGCGCTCCAGCTGCTGCTCCTTCATGTGAA  
TCCCAGGGGGCAGAGAGGAGGCTCTGGAGGCACACAGGATGCAGCCTTCCCCCTCCCAGGCCTGGCTTATTCCAA  
GAGGCTGGTCTTGAATTCTGAGCTCAAGCAACCTGCCGGCCTCGGCCTCCCAAAGTACTGGGATTACACGCAGA  
AGGCACCATGCCCAGGCTAGATGTGTCTTATCCCAATCCTTTGGCAGGCATGCAGCTCCACAGGCGATTTCTTCA  
AGCAGCTGAAGTGTGTTAGCCCTCCTGGGTTAAGAGCCAGATAAGGAGAAATCCCTTTTCTAGGTTTGGAAATGTGT  
TGTGAAAAAAAAAGAGAAATCCCTGGCTCCTGGAGCTGGTGGGAGACAAGATTAAGCAAACCTCCCCTGACATGTA  
TCCCTTTGACCCCAAGCTCTGCCTCCTCCCTGACCACCCATGCCCTTTCCTTTAACTTCTCAAACAGATACCAGG  
GCCTAAACTGCTTTACCTCCCCTCCTACTGAGTCAGGTTAGGTGGTGGGAGGTCACCCATTTCCGAGTTAAACCA  
ATGCAATATGAGTAAACAAAGTCATGTGGGTATGTCTGGGGTAGAGAGAGGGGTAGCAAGTTCATGTGTCTCTCC  
TTGGTCACATATCTCCCAAAGCTCCGATCCCTGCCATGGGAAGTGGACAGGAAACATGAGGTTCATGACCTGCAGG  
CATCTTTACTGCAGCTCTGCCGGCCTGGAGGGGGAGAGGGGGAGGAAGAAGTATGCGCTGCACATTTCTGAGGCT  
ACTGCATTGCTTTCAAGGCAGAAATCTTGCTCTGAGCAGTCAGCGGCTCCAGTTTGGGCCCCGATAAGGAAGTTC  
TCCGTGGCCTCCCTCAGGCAGAGCAGGGAGGAGGCTGACATTGCCAGTCTCTTCTGGGGCCCCAAGGCAGGTTGCA  
GGAGATCCAATCCCATAGACAGCTCTGGGCCTCTTGCAATTTGAGTTTTTTCAGAATTAACTGCAGTATTTTGGAA  
AGCAAA

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**FIGURE 1374**

MTGTPGAVATRDGEAPERSPPCSPSYDLTGKVMLLGDTGVGKTCFLIQFDGAFLSGTFIATVGIDFRNKVVTVD  
GVRVKLQIWDTAGQERFRSVTHAYYRDAQALLLYDITNKSSFDNIRAWLTEIHEYAQRDVVIMLLGNKADMSSE  
RVIRSEDGETLAREYGVPFLETSAKTGMNVELAFLAIAKELKYRAGHQADEPSFQIRDYVESQKKRSSCCSFM

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**FIGURE 1375**

GCGGCGGGTACTCTGTGCCCCGCGTCCCGGAGGCAGCCGACTGCGCCACCCACCCCTCGCACGGCCGGGCGGGAC  
CCGCGCCACCAGCCCGGACCTCCGTCTGTCGCCGCGGACCAAAACCCCGCTGGCCCCACCGCTGTGACTACTCT  
GGACTCGCCCGCAGAGTTTGGCCGCCGGGAGGGTGGCCGATTGGCGGAGCGCACTCCTGCTGTTTTCCCCACCA  
TCTCGTGGATGTCGTCCCTCGGGTGGTGAGAGAACTTTGCAGTGGGCTGGAGCGCCCTTTGCGGAGAAGCACACG  
AAGGTGAAGGAAGGAAAGAAAGAACCGAGGAAGAAGGAGCTCGGAAGAAGGGTCCGGAGCGGCCGGTCCGGCC  
GTGCAGGGCGAGTGCGCCCGAGGCGCGGCCCTGATGCTCCCCGGGCTCGAGGAGCATTGGGCACTTGCGGGAC  
TGCTCTCGGTGGAGTAGCCCCGTGCGGCCCGGAGGGTTTGTGCAACCGCGGAGAACACCGAGTGCTGGTTCGCACG  
GGGCGTGCCGAGCCGCTCCCGGCGCGCCCTCCGCACTTTCCCCGCCCTCGTCATCCGTCGCTCCCGGCCAGGAG  
CCTCCGCTGCGTCTTCAACCTCGCTCCCTTTGCGTCCCGGGAGCCTGCGAGCACCCGGCCGAAGGCGCAGCCGA  
ATCTTGCGGGAGTCGCCCCGAAAGCGTCGGGTTTGTGTGGGGTTAGCGGGGGCCGCCGCGCCACCTGCACCTCGC  
CCGCCGCCGCTCGGGGAAAGCCGAAGAGGAGGCGGACCAGGAGAAGAGCAAAGAAAAGCAGTCCGTCTGGATT  
TGTTTGCCAGGACTGGCGCCGCGCACGCGGATCGCCGAGGGGAGTGCGGTTCGGAGTACCGCGCCCCCGCTCC  
CCGCCCGGGCAGCTGAGGCCGGGGTTGGAGCGCTGCCCCCGCTACAGTCCCGGAGCGCCCGACGTCTCCGCGC  
AGGTTCTTGAAGCAGCTGGGCCTGGGGCGCCACTAATGTGGCCCTGAGGGCCGGAGCCCGCACCGACGGGAGCG  
GGAGCCGGAGCAGCTGCGGGCGCCGAGTGGCCGGTGCGCCCGGCGGAGCGCGCTGCGTGGCCAGCGCGCTCCCC  
GCTTCTGCTTGGCTTTCCGGCTTAATTTTCTCGGCGGGATTAAAGTTGGAAATTGACCGGAGAATTGAGTTGCC  
GGGGAACAGAGCCCCGGCCGCCAGAGCGATGTTCCCGCAGAGCCGGCACCCGACGCCGACCGAGGCTGCAGG  
CCAGCCCTTCAAGTTCACTATCCCGAGTCCCTGGACCGGATTAAAGAGGAATTCCAGTTCTGCAAGCGCAGTA  
TCACAGCCTTAAATTGGAATGTGAGAACTGGCAAGTGAAAAGACAGAAATGCAGAGGCACTATGTGATGTATTA  
TGAAATGTCATATGGATTAAACATTGAAATGCACAAACAGACTGAAATCGCCAAGAGATTGAATACGATTGTGC  
ACAAGTCATCCCATTTCTGTCTCAGGAACATCAACAACAGGTGGCCAGGCTGTTGAACGTGCCAAACAGGTGAC  
CATGGCAGAGTTGAATGCCATCATCGGGGTACGTGGCCTACCAGGTCTACCTCCTACACAGCAGCAGTTGCAAGC  
TCAGCATCTTTCTCATGGCCACGGACCCCCAGTTCCCCTTACGCCTCACCTTCGGGACTTCAGCCTCCTGGAAT  
CCCGCCCCCTCGGGGGCAGTGCCGGCCTTCTTGCGCTGTCTAGTGCTCTGAGTGGGCAGTCTCACTTGGCAATAAA  
AGATGACAAGAAGCACACGATGCAGAGCACACAGAGGTGAGAGGCCGGGCAAGCCAGATTAGGACTTTGTCTCT  
CATACTCTTACAGTGCTGCAAAGTTGTGTGCATCGCTAAAGAGAGCCCCAACCTATACAGAGAGCAAAACAATGAG  
ATAAGAGGAAGTGTGCAAAGCTTTCCACTGAAACACAGGTACCCTGGAAGTTTGCAGGGTTTGTGTGGGCAT  
CTGTAGATTTCTCGATCTCGTTAGATTGCAGGCATCTTGACATCTTGGCAACTGCCTAGTTAATGCCAGTGGCCT  
GTACCATATTATGGAAGTGTAACTGCTTAATTGGGTAATTTTCAAAGAAAGTAATGTTGTTAAATGGGGCGA  
AATAAGAAGTTAAATTTGAAAGTGAATGTGTTCAAATGAAAGTTTGATAATTGCGTCTGTTACTACTTAGTTTC  
ATAGGCTTTAATTTCTAGTATGCATTAAATATTGGGCAAAATTGCACTTGACTAATTTTTTGAAGAAAAGTAATTT  
ATTCTGTCAAGAAATAAAAAAATAGGCTTTGTGTATGGTTAACTGTAAATCTTATGTTTACAAAATACTGTAAT  
TTTCAGGAAATCACTGTATTAGGAATGTGCAATGACTTATATAAATAAAAGCCATTTTTTAAACTGAAAAA



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**FIGURE 1376**

MFPQSRHPTPHQAAGQPFKFTIPESLDRIKEEFQFLQAQYHSLKLECEKLASEKTEMQRHYVMYYEMSYGLNIEM  
HKQTEIAKRLNTICAQVIPFLSQEHQQQVAQAVERAQVITMAELNAIIGVRGLPGLPPTQQQLQAQHLSHGHGPP  
VPLTPHPSGLQPPGIPPLGGSAGLLALSSALSGQSHLAIKDDKKHHD AEHHRGERPGKPD

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**FIGURE 1377**

GCAATTGGTGGCTTTGAAGGCGCGGCGAGCGGGAACAGCTCTTGAGGAGTGAGACTGCAGGAGATGTGGGCCGTG  
CCAAAGAGATGGATGAGACTGTTGCTGAGTTCATCAAGAGGACCATCTTGAAAATCCCCATGAATGAACTGACAA  
CAATCCTGAAGGCCTGGGATTTTTTGTCTGAAAATCAACTGCAGACTGTAAATTTCCGACAGAGAAAGGAATCTG  
TAGTTCAGCACTTGATCCATCTGTGTGAGGAAAAGCGTGCAAGTATCAGTGATGCTGCCCTGTTAGACATCATT  
ATATGCAATTTTCATCAGCACCAGAAAAGTTTGGGATGTTTTTCAGATGAGTAAAGGACCAGGTGAAGATGTTGACC  
TTTTTGATATGAAACAATTTAAAAATTCGTTCAAGAAAATTCTTCAGAGAGCATTAAAAAATGTGACAGTCAGCT  
TCAGAGAACTGAGGAGAATGCAGTCTGGATTGCAATTGCCTGGGGAACACAGTACACAAAGCCAAACCAGTACA  
AACCTACCTACGTGGTGTACTACTCCCAGACTCCGTACGCCCTTACGTCCTCCTCCATGCTGAGGCGCAATACAC  
CGCTTCTGGGTCAGGCGCTGACAATTGCTAGCAAAACCCATCAGATTGTGAAAATGGACCTGAGAAGTCGGTATC  
TGGACTCTCTTAAGGCTATTGTTTTTAAACAGTATAATCAGACCTTTGAACTCACAACTCTACGACACCTCTAC  
AGGAAAGAAGCCTTGACTAGATATAAATATGGATTCAAGGATCATTATGAAAACATAGTAGAAAAAGAGAGAG  
TCCAACGAATAACTCAAGAAACATTTGGAGATTATCCTCAACCACAACCTAGAATTTGCACAATATAAGCTTGAAA  
CGAAATTCAAAAGTGGTTTTAATGGGAGCATCTTGGCTGAGAGGAAAGAACCCCTCCGATGCCTAATAAAGTTCT  
CTAGCCCACATCTTCTGGAAGCATTGAAATCCTTAGCACCAGCGGGTATTGCAGATGCTCCACTTTCTCCACTGC  
TCACTTGCATACCCAACAAGAGAATGAATTATTTTAAATTAGAGATAAATAAGACGTGCGTGGTTTTCTTAAGCA  
CAGCTCCTCCTTCTTGATATTGCACATGCACTTCAGTTCATGGGCTAGCTGTATAGCTTNCGTCTGTAACTTGT  
AATTTCAAGAATCCTTGGTATTGAATTTTAGAAATGCTCACATAATTGTTGGGACTGATTCATTCTCCACGGAT  
ATGCCTCCTCTCTCTGATATCCTGCTAACTGTAGCCGTTGTGGCATTGAGATGACAGGACATATATATATATGG  
CCCCACACTTGACCTTGAGTGCCTGAATGCTCTGAAATCAAGCATATGGCACAGCGCTCAAGACTTTTGGGTTG  
TGTCTTTTTTCTATGGCTGTCTCTTCTCAATTCTGGAGAGGTCTGGTTCCAGTGGCTGGTTTCCAGGGATTGAT  
TCTTAAGCTCTGGATCACAGAGAGAAGCAACAAGGAACTATACTCAACTCAAACTTTTTAGGAGAATCATGAAA  
TTGGTCTATTCAAAGGATGGAGTTGAGTCCATTCTGTTATTGTTGCAAGAGGTTGCATATTTGGTGAGTCAGTTA  
TATAAAATAGTGTTCTTATTGTAAATATGATACTTCTCATAATCTATTTTATCATGTGTATAACATTCAAACCTGA  
CAAAATATATTGACTTATGAATAAAGGTGTCAAAAAAAGTGGCACATCAGTTAATTTTGATCAAAGTACTTCAGTGA  
TCATCACTAAATACCCTATCTTTTTTAAAAANNN  
NN  
NNAATGACATCACTTTGGTTCAGAGCTCTAAATGGAGGGAGGAAGCCATTCTAAAAAGGACTCCCTACATGACC  
TGCAACTTGAAAAAAATTAAGCTCCAAAAAACAATAACAGGAGCTTACCTTGAACCTTTGAATTGGGCC  
AAATTGCGATGACCACTGCATCCTGGAAAATTTATTTACCAGCACTACAACCTCCTCAACAGCACCAACCAATA  
AACTATGGATTTTTGTACTAAGCCAGTTGCCTCTTCAAAACAACCTGTCAACTGTCTAATCACCTCAGCTTT  
TTTTAAAAACCCCTCCTCTACCCTCTCTCTCAGAACACAAGTGGCTTCTAGCTGAATCTGTCTCCCAATTGCA  
ATTCTTAAGACCTCAATAAAAAACACCTTGCTTGTGAAAA

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**FIGURE 1378**

AIGGFERGEREQLLRSETAGDVGRAKEMDETVAEFIKRTILKIPMNELTTILKAWDFLSENQLQTVNFRQRKESV  
VQHLIHLCEEKRASISDAALLDIYMQFHQHQKQVWDVFQMSKGPGEVDLDFDMKQFKNSFKKIILQRALKNVTVSF  
RETEENAVWIRIAWGTQYTKPNQYKPTYVYVYSQTPYAFTSSSMLRRNTPLLGQALTIASKHHQIVKMDLRSRYL  
DSLKAIVFKQYNQTFETHNSTTPLQERSLGLDINMDSRIIHENIVEKERVQRITQETFGDYPPQPLEFAQYKLET  
KFKSGLNGSILAERKEPLRCLIKFSSPHLLEALKSLAPAGIADAPLSPLLTICIPNKRMMNYFKIRDK

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**FIGURE 1379**

CCACTATTCCACAGGGAAGGTCAGCGCTTCCTTCACCTCCACCGCGATGGTCCCGGAGACCACACATGAAGCAGC  
TGCCATCGACGAGGATGTGCTGCGCTACCAGTTTGTGAAGAAGAAGGGCTACGTGCGGCTGCACACCAACAAGGG  
CGACCTCAACCTGGAGCTGCACTGCGACCTGACACCAAAAACCTGCGAAAACCTTCATCAGGCTTTGCAAGAAGCA  
TTATTACGATGGACCATCTTCCACAGATCCATCCGGAACCTTGTGATCCAAGGGGGCGACCCACAGGCACAGGC  
ACGGGTGGGGAGTCATACTGGGGGAAGCCCTTCAAAGACGAGTTCGCGCCCAACCTCTCGCACACGGGCGCGGC  
ATCCTCAGCATGGCCAACCTCCGGGCCAACAGCAACAGGTCTCAATTCTTCATCACGTTTCGCTCCTGTGCCTAC  
CTGGACAAGAAGCATACCATCTTTGGACGGGTGTGTGGGGGCTTTGACGTACTGACAGCCATGGAGAATGTGGAG  
AGTGACCCCAAAACTGACCGCCCTAAGGAGGAGATCCGCATTGATGCCACTACAGTGTTTCGTGGACCCCTATGAG  
GAGGCCGATGCCAGATTGCGCAGGAGCGGAAGACACAGCTCAAGGTAGCCCCGAGACCAAAGTGAAGAGCAGC  
CAGCCCCAGGCAGGGAGCCAGGGCCCCCAGACCTTCCGCCAGGGCGTGGGCAAGTACATCAACCCAGCAGCCACG  
AAGCGAGCAGCAGAGGAAGAGCCCTCAACCAGTGCCACTGTCCCCATGTCCAAGAAGAAGCCAGTCGGGGTTTT  
GGGGACTTCAGCTCCTGGTAGCAGCAGGCTGCCTGATGACCACTAGAGGTATGTCTGCCCTCGTCACCCCTGCTG  
CACACCAATCTGTGGCCCTTCATCATGCTAAGAACAAGAAGTGCGCCATGGCTGGCTCCTTCTCTTCTCCAGCCC  
ATCCCTCTGCAGCCTGTCTCCTGTCTGTGACCATTTGGTCGGGGCCCTGGGCTCTAGAGTGACTTTTTGACGCCC  
TCCATCCCTCCCGCCAGGCACTGTCTCCTCCGAAGGCCTGGTGCAGCCCTGGCAGTAAGTGGCTTGTAAGAGGCTC  
AGACACCAAGCTGGGCCTGCAGAGGAGGGGCACAGTAGGACACAGTGACTGCCAGGTGTCCACACACCTGTAGG  
CCTCTGAGCCAGCGTCCAGGGTACAGATGCGGGTGGTGGGGATGAAGGCCTGACCAGGGAGGGAGAAGCAGGTTT  
GGAGAGGACCCTGTGCCACCCTGCAGACACCCTGGCTGGCCCTGACTGACTGTATTCTCTGGCCACATTCAAG  
TCCCCCATTTGGTGGGGGCAGAGAAGTAGGACCAGGCCGTCTTGGCTCCAGAGCTCGAAGACCCCAAGACAGCCC  
TCTGCTCTCAGCGGCGCCACAGAGAGCCTGGGCTCAGCCTTCTGCATCAGGACATGGCCTCGTCCACTGAGGGCA  
CGATTTAAACATTTGACATCAGAAGCTTTATTTGTAAACCTCACACAGATAAGGACCAAGGGCTGGCGGTGTGGC  
CAGAGGACAGGGGAAGCTGAAGGCCCGTGTCTGAGCTCGGCAGTCTCTGCTCCTTGCAAGTGAAGCCACCATGGGT  
GACCGTCCAGCCTCACCCGGTGGCCTGCACAGTGAGGGAAGGGCTTCAGGGCCATCTGCTCCAGGGCAGGGGAC  
AGGCCACCAAGGACCTTTGGCAAATGAAGGTTTACATTTCTGTAGTTTGTGTTTGTGTTTGTAGGCTTAATTTGTAGTT  
TTTTAGCTATTAAACCATTGAAATTTTAAACGACCTGATGAGGGCATCAGGTAAATTAAAGGATTTTGGGAAGA  
TTCTTATTTTCAATTCTAATATCTGACAGATGCCATCAAGAATAAGCATTAAAGGTATAAAAAATACTGTGTGTAT  
AAAACAATGCCAAACCACATTCTACAGCAAATGCACTGTGCCATTTATAACCCTGACATCACCTCCCAAGGCTC  
TCAAGGAAGATTTATTTTAAATAACTTAAATAGAAGTCCTAGATGATATTGTTTAGGAATTTAAGAGGGTGGTGG  
ATATGGTCCTGTGAATAGCACTTCCCCTGAAGCCAGCTCATGGTCTGTTTCAATTTGGTTTAAAAATGAGCTTGTAT  
TTTGCAGAAGCCCAACAAAAAAAAGTGATAAAAGTGTGTTGGTATNNNNNNNNNNNNNNNNNNNNNNNNNNNNNN  
NNGTCATAAGACTACTAGTAAAAAATGTTCAATCAATGCCGTCACAAAGACAGTACAAAAACCAAGTGCCCAAAT  
AGAAGGAGCAGCGAACTTGCCCAAACAGAAAAGCTCTAAATAGAAGTTTAGTATATACAAAACCACTCGGTAGAG  
TTTTAGAAGTTTCTTCCATGTAAGTGAAGCATCTTGAGTCACTCAGACTT

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**FIGURE 1380**

MANSGPNSNRSQFFITFRSCAYLDKKHTIFGRVVGGFDVLTAMENVESDPKTD RPKEEIRIDATTVFVDPYEEAD  
AQIAQERKTQLKVAPETKVKSSQPQAGSQGPQTFRQGVGKYINPAATKRAAEEEPSTSATVPMSKKKPSRGFGDF  
SSW

**FIGURE 1381**

GAGGCTTTTCAGCCTCATTGAGGTACAGTTACATATCTTTTGCCTTTTGCCCCGTGCATAGCTATCTACAGCC  
AATCACAGATCACAGAGTCACTGGACTATAGAGCTGGAAGGAAGCTCAGAGACAATGCCAAGGGGCAGAAAATT  
TATCAGAAGCCAGTCCCAGTGCCTTTCCCTCCATTTCCTTCTGCAGGAAGACTATTTTGGGCTGCCTGAACATTGT  
ATCAAACCTGCTACCTATACTATGGTCTACCTTTCCCTCCAGTGGAAATTACAAAGGCACTAACTGAAATGCCTTCT  
AGAAACAGAGAAAACGAAACTGTACTTATTTACTCTTGATACACAGATTATTTATAAAACAGATTGAAGTAACCT  
GTTAACTGGCAAAAAGAGAATGAGATCGGATTTAAATGTATGGCAGTAAGTCCTATTGATCCCTCCAGTTATCTC  
AGTATGACTGCAGTATATTCATTCACTAAAACCACTCACTAGATACCAACTACACATCTGGCACTGCAGATGTAA  
AGGTCAGTCACACATGTTCTGACTTTACAGAGTTACAGTAGCAGTGGAGGATGATATATGTGGAAACAAAAAG  
GCATTGATTCTATTTCAGAGCACTGTTAGGGCTCAAAGGAGAGAGGGGTCTTTCCACCTAAGAAATGAGGAATAGG  
GTCATCATAGAAGTGACCTTAAGTCTTAAAAATTAAGAAGGGGATTCCAAGCTGCTTCAGACAGAGACACATCGA  
GCTAAAACACAGAGGTATGAAAGAGCACAGGGACTTTAGGAATTGCACAGTTTATTCTAACAGGAACAAAAAGCT  
CAAGGGGGGCAAGAAATGAGGCTGTATGGAAAGAGATTCAATGTAAGCACTTTATAAAATAGATTAATTTCTGAT  
TCAATGAAGCATTTCTTGATCATTGTGTACAAGGCACTACATGCATCATGGAAAATTCATTAGGATGCATTGCCA  
GCCTTGCAAGTATGATATTATTCAGCCTCAAGCTTTCCAGTGGCCAAAGGGAAATGCTGACTGCTTTTCATATA  
TTTGAGTCAAAGATTTTTTATATGGTCAATGAAGACTAATATAAGGGCAGTGGGATTTTCACAGATGCATGCCAT  
GTTGTCGAGAGCCTCTTAGATTTTCTCAACTGTGAGAAAGAAAAACGAAATGTTGAAGACGTTGAGTCTGGAGA  
GGGGATACTAATCACTGTCCAGTTGGGCACTGGTGGGAATGGGGAATGGCACAGGAATGCAAGCCTCTCCACCC  
TACCCCCGAACTCCAGCCATACACTCATCGTTTCACAAAATATAAATGAGTTAGCATTAAATGTTTCAGAGTAA  
ATAATTCCTTTTCCCGAAATGCATGAAGATAGAGTAACAGACTTCTCACACTGTATTTTTAGGGTATGGAGAATT  
TAGAAGGTTAAAGAATTACTGCTTCAATTTTTCAGTTAAAAAAAATCAGGAAGCTCTGTTTCATTACGGCTATGC  
ACCATGTGCACAGTCAAGAATTAGCAGAAACCTCTGCATTTACAAACACTTTGTGCTATAAAAAAGTAATTTTT  
AAAAAGCCACGTGTGTGTGTGTCGTATATCNNNNNNNNNNNNNNNNNNNNTCTAACACGCCAAGGTTTTTGATACTT  
TTTTACAAAACACTACAAGAGAAAACAAATATACCTGTCCAAACCATATACTTTTTAAAGAGCATTTTTTTTTCCA  
TACAAGCTGTTGTTAATTTGGGGGTAAAGTGCTGATTGCAAACCTTCATCAAATTGTTCCCAAGTGGATTCTCCT  
TGTTTGCTCTCCCCCTACCAACCCCAAGTTACCATATTTGATGTAAGAATCAGGCATGTTAGAATGTTGTGTCAC  
ACTAACTGATTCTGCTCTTTTTGTCTTGCTATTCAAGTTCCGTTAGCTTCTGTACGCGGTGCCCTTTGCAGTCTG  
GTGTCTCTTCCAGAGGCGAGGGGGCTGAGGATGGGGTGCTGCATCTCACTAGCTATACTGGCATCATCTTGGTAA  
ACATTCATTCCCATGCCATTGGGGTTGCTTTTGCCAAGGTCAATCCAGGACCTCCTCGATTATAAATCTGGTAAAC  
ATTTTCAGTCTTGCTCTTCCTTGACCTGAAAGCTTTACAAAAGTACCAATGCCAGGTCCAGCGCTGGAGATNN  
NN  
GAGAATTACTGCTCGGTAAGTGGGATGACTGGGGAGTGGGAGATCAAATACTCTAACGTCTCCCAGCACCTATTCT  
TAGAGATCAGTGGGGCAGAAAGGTAGAAATAAAAGGTGGAAAGGGATGAAATGGGTAAGTGTGGGTGAATTAGTT  
CCAGGAAAACGGCAATCTCCACTGTGGATTACAGGAAGGCGTCACTGAGGAGGGCTTCTTAACAGTTCAGGTCA  
GTGGAAGCCAACCTGAGGCACACATCGTGCGCGGCATCCTCCGGGGAGGTGCGGTCAATTCACCCCATTTACTG  
CCGAGATGACCTAGGTCCAGAGACGGTAAAGAGCGGTGTACGACTCACACAAGTCGGGGGTCTGTGAACCGAGG  
TTGAGCCTGGCGGGCCTTCGGCCCGAGGTCTTTAAGCGAAGTCACCAGACCCGGGGTTCAAAGCCCAGAGGTAGG  
CAGGCGGTGGCTCTCCGCCTCAGGCCTGGAGAGAACCCAGGGGTATGAACCTCAACCTCGCTCCCGCGTCCAGC  
TGGAGGGGCGGAGCTGGCTGGCCCCGCCTCCGGGTAAACAAAGTTCTTTACAGACTAGGCGTGAGGGGATGTTG  
CAGTCTTGTTGCCACTTCCGGGCGAAGAG

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**FIGURE 1382**

GFSASFEVQLHIFCLLPCCIAIYSQSQITESLDYRAGRKLKRDNAKGAENLSEASPSAFPPFPSAGRLFVAA

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**FIGURE 1383**

GCCGCATTCCCGGTGTCGACTTACTAGCTGCAAGCCTCTGCCTGCCTTCCTGCGCGCCGTTCCCGCTAGTCGCT  
GCTGCTGGCGCGCACTCGCCGGGTTTTTCCTCCACGGCCTCGAGATGGTGGTGAATGTGGCACGGAGGAGCCGG  
GCCTTCCAACCCGGTGGGCCCCGAGCTCCGAAAGGCCCCCTCGGCAGTGAGAGGGGCGGGAGCCCGCGGGGGCCGC  
GCCCTTCTCTCGCTTCGGACTGCGCAACGCTGCGCTCTGGGCTGACAGGCGGATAAAACGGTCCCATCAAGACTG  
AGAAAAAGCACACCAGCTATTGGCACAGCGTGGGCAGTGGGGCCTACAGGATGACTGACTTAGTCTACAGAGATC  
CCGGCGTACTTAAGCAGGTAGTAATGATGGACAGATGAAGACTCTTAAGATGACAGAAGGTGATTTTTCTGGTGA  
TCGAGGACTTCCGGGGTAATGACAGTGATGAAATGCAGGGGACCTGGTTGCCCCAAGTTTCCTGGCAGTGTGTG  
ATACTGAGGAGGTGAGCTTGTTTTCTGGAGCTGTGCTTTAAGGTAAAGTTGATCAGCTTAATCCTCCTGATCCCTT  
TCCCATCGGATCTGAACACTGGTCTTGGTGGTTCGTAAGGAGGAAAAGTAATAGTGAAGCTGGCCTAAATGTTG  
TAATCTGGTATATGGCATGTGGGCTAGTTTCAGACAGGTTTCAGAGATGGTTGGATCTCTGAAATTGTAAATGA  
AGTATAATCTTAGGCTAAGGGAAGGATGCGTGTGAAGCTCTGGAGATTCATGTTACATGTAAAGCTGTCCTCATT  
TGTGACTATGGACCTATGGAGTTGGGACAATCTCTATGGGAAGCAGAAGGCAAGGACCCCGGTCATTTTAGGTAG  
AAACAACAGCATGCTAATGCAAAAATTATGCAGTGTGCTACTGAACTTCAGAGGTGATCAATAAAAGAAGAATA  
AAAAGACT



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**FIGURE 1384**

RIPGVDLLAASLCCLPSCAPFPASRCCWRALAGFFLPRPRDGGECGTEEPGLPTRWARAPKGPLGSEGGSPRGPR  
PSLASDCATLRSGLTGG

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**FIGURE 1385**

GGCTCCTCCTTGAGGGAGAGAGCTGAGGAGGTGGCATTCTTGCTTCCCTGACTCACCCAAAGGAAGATTTACAG  
 CCCCTTGGCTGGGTGGGGAGTTATGCTGGGAAGTCTTCCAGGCCCCCTGGGGGTGGGAAGATGCTCAATGTTCAA  
 AGGAGATGGAACGAGGAAAACAGTTAAGCAACGATGGACTCCAGGGGGAAAACCGGAGAAGAAGAACTGTAATT  
 CCAGTCCGTCCACATGGCCCAGCAGTGAACGACAATTGCATGGTCAGAGAGAGCAAAAGCACCACGCCGACTGAA  
 AGCAGCTCGAATGTGGTGGGGCAGTGGGAGATAATGCCCTCATCTACCAAAACAAGATCTGCCACCTTCGCAGAC  
 CACTAAACCTCATTCCTCCAGCCAGCTCCCCACCCCCATGAAGGCCAACTGACCAGAGAGCAGGGCTCCCGAGGG  
 TCGGGTCGGGTTCGGGTTCGGGTTCGGGTTCGGGTTCGGGTTCGGGTTCGGGTTCGGGTTCGGGTTCGGGTTCGGGT  
 TTGCTGTCAAAGCATGCGACTCTTCTTTCTGATACTTGACATATTTCTTTTCCCGTTCAATTCATGGTTTTCTGCC  
 CAAACGGAGCCACGTGAGGACGTCTTTGGGGATGTGTCTCCAAGAAAAGTGTGGGCTGCCTTCCTCACCCCTGGAT  
 GCCTGTGGGTGCCTTCCTCACCCCTGGATGCCTGTGGGCTGCCTTCCTCACCCCTGGATGCCTGTGGGCAGCCTTC  
 CTCACCCCTGGATGCCTGTGGGCTGCCTTCCTCACCCCTGGATGCCTGTGGGCAGCCTTCCTCACCCCTGGATGCCTG  
 TGGGCAGCCTTCCTCACCCCTGGATGCCTGTGACTTGGTTTCCATGGGGGCTTCCTAAGCTCAGGGACCCCAAGCC  
 TCCATCAAATCTAATGACCCGCCTTGTCTCTGAACACACCTGTGTTGTCCCCGAGCCCCCTACCAACCCCCCTCTG  
 CAACCCGGCCCACGCATTTCCCATCCTGAAGGGTCCAGCTCATAGGCCGGCCCATGTGTTCCCTTTACCCCTGCT  
 TTGTCCCTACCTGGTGGGGAGCTGTCCCTTCTGGGCCCTAGTGTGGCACTTCACACACAAATGTGTCTCTGTGGGT  
 GGTATCTGGGCCTCCCCCTGCAGTGAGGGGATTGACCAATGTGCAGAGCTCACTGGGCCTGGATATGGGCTCGGGT  
 GGCACAGAACAGAGAGAAAGTGCTCCGTAAAAGTGAGCTGCGATGCGGAGGTGGGCAAGCTCTTCCCTGGAGGGG  
 GAAGAGCTCTCAACCCAGAGGGATCTGACCAGGAAGGTTACCCCCCTCCACCCAGGAAGCCCCTGCAGACAGT  
 ATGTGTTTTAGGCTTTGCTGGCCAAATGGTCTCTGCCGTGACTACTCAGCTCTGCCATTGTGGCTGCAGAGTGAC  
 CATAGACCTTCTGAAAGTGAATGAGTATGACTGTGTTCCAATAAACTTTATTGACAG

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**FIGURE 1386**

MRLFFLILDIFLFPFNSWFLPKRSHVRTSLGMCLQEKGLPSSPWMPVGCLPHPGCLWAAFLTDACGQPSSPWM  
PVGCLPHPGCLWAAFLTDACGQPSSPWMPVTWFPWGLPKLRDPKPPSNLMTRLVSEHTCVVPEPLTNPLCNPAH  
AFPILKGPAHRPAHVFLPLLCPYLVGSCPFWALVWHFTHKCVLWVVSGPPPAVRG

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**FIGURE 1387**

TCGCATTTCTGCAGTGTTTGCACTCTCAGGCCCCACCATTTCCCCGCATCTCTTAGGGAGAAGTTCTCGACGTCC  
CACCTCCCCTGGAAGGGTGCTGCTCCCAGAGACCTTCAGGCCAATGGCCCAATCTCAGTGCCCTCAGGGGAGAGG  
GGGGTGCAGAAAAACAGCCTGGGTACAAAAAGAGGTGCGAGGGCTGTGAGATCCCGGAGGCACCGACGGGAAGCG  
AGACGGAGAACAGGAGGGGACGAGCGGGCTGGAGGTGGGGGATACTGCAGATCGAGGGAGCCACGGTGGGGGAGGG  
CGTGAGACCTGACCGTCTGGCACAAGGCGGTTCGGGTGCAGACCTCCAGGCCCTCCGGGTAAAGGTGCCGCCAGGA  
GCCCTCAGGCCGGGGGCGCACGGAACACAGGCAGGGTGCCTGAGGGACGGGGAAAGCGGGGCGGGTTGGG  
GAAGGCGCCCCGGGAACCTGAACCTCCACCCCGCCTCAGTCTCGACCACTCCTTAAGCCCCACCCGCCCCAGG  
TAAGGCGCAGTCCACCCCCATTCCCAGTAGATTAACGCACAGGTGGGGGCGCGCTCGGGACATAGCTGCGCTAGG  
GGACAGCGCGCCAGCCAGTTCGCGGGGCGAGGAGCAGGGCGGGGCCAGCAGGAACCCAGCTTTGTTAGCGAT  
GCTCCCCGTGAGCCACGCGCCACGCGTACGCGCTTCTCAATGGGGCCGGGCGTGGAGCCGCGCCCTGCGCGATT  
GGCCAAACGGGTGGCCCACGATTGGCTGAGACCTGGCCCCCGCCTCCTCGGCCCCAGGAGGGTGGGGCGTGGGT  
GTGGGCTGCGCGGCGCGTGCTGCCCCCGGGGATCTTGCGCGCCTCCCGAACAGCCGTGTTGTCGCCAGGGCCGCG  
CCTTCCCTCCACAGCGCGCGTGCGCGTGCGAAGGTCTGGCGGCTCTTGGGACTGGCGGGGCTGCGCGCGGGGT  
TAGGGTGGGGGTACGGGAAGGCTCAACCCAGGACCTGCGTACCTTGCTTTGGGGGCGCACTAAGCACCTGCCGGG  
AGCAGGGGGCGCACCGGGAACCTCGCAGATTTGCCAGTTGGGCGCACTGGGGATCTGTGAGTTCGCTCCGGGGGA  
TGGGCTAGGGGGACATGCGCACGCTTTGGGCCTTACAGAATGTGATCGCGCGAGGGGGAGGGCGAAGCGTGGCGG  
GAGGGCGAGGCGAAGGAAGGAGGGCGTGAGAAAGGCGACGGCGCGGCGCGGAGGAGGGTTATCTATACATTTAA  
AAACCAGCCGCTGCGCCGCGCTGCGGAGACCTGGGAGAGTCCGCGCCGACGCGCGGGACACGAGCGTCCCACG  
CTCCCTGGCGGTACGGCCTGCCACCCTAGGCCTCTATCCCCGGGCTCCAGACGACCTAGGACGCGTGCCCTG  
GGGAGTTGCTGCGGCGCGCTGCCAGAAGCCCCCTTGGGGCGCCACAGTTTTCCCGTGCCTCCGGTTCTCT  
GCCTGCACCTTCTGCGGCGCGCCGGGACCTGGAGCGGGCGGGTGGATGCAGGCGCGATGGACGGCGGCACACTG  
CCCAGGTCCGCGCCCCCTGCGCCCCCGTCCCTGTGCGCTGCGCTGCCCGGCGGAGACCCGCGTCCCCGGAAGT  
TTGCGCTGCAGCCGGCGGCGGCGACCGGCCACCGCAGAGACCGGAGGCGGCGAGCGGCCGTAGCGCGGCGCAAT  
GAGCGCGAGCGCAACCGCGTGAAGCTGGTGAACCTTGGGCTTCCAGGCGTGCGGCGAGCAGTGCCGCGACGGCGGC  
GCCAGCAAGAAGCTGAGCAAGGTGGAGACGCTGCGCTCAGCCGTGGAGTACATCCGCGCGCTGCAGCGCCTGCTG  
GCCGAGCACGACCGCGTGCACAACGCGCTGGCGGGAGGGCTGAGGCCGAGGCCGTGCGGCCGTCTGCGCCCCGC  
GGGCGGCCAGGGACCACCCCGTTCGCGCCTTCGCCCTCCCGCGCTTCTTCGTCCCCGGGCGCGGGGGCAGCTCG  
GAGCCCGGCTCCCCGCGTTCGCGCTACTCGTCGACGACAGCGGCTGCGAAGGCGCGCTGAGTCTGCGGAGCGC  
GAGCTACTCGACTTCTCCAGCTGGTTAGGGGGCTACTGAGCGCCCTCGACCTATGAGGTAACAGCCGGGAGGCAG  
GGAGGAGGGAGGGCCGGGGCGGGGTGGAGGGACGGGTGGGCAGGCCCGGCGGGTTCGCGCCCCCAGGAGCCCC  
CGGAGCCGAGCGCCAGGCCGAGCGATGGCTTCGATTTTCGCTCACTCTTCATTTCCCCCAAAGTTTTTCAAGCCC  
GTGCAAGACCGCGTTTGTTTGTCCGGGATTGCAAACTTCCCCTCGCGGCTCAGCCGCCGACGAGGGAGGGGTA  
GACGAGGGGAGGGGAGCGGCCGTTCGGGCCGTTGAGGTCTCTAGTGCTGGCGGATCCTGGGGCAGATTGGGGTGCT  
GGAGGCGGGGTGACTTTGCATTGCAATCGCGCTCCCGGGCCGGGCGGCAGAAATGAGTCGGCGGGCGCGGAGC  
CCTGACTACCGCGGCTCCGAGCGCCCGCCCCGCCCCGCGTGTCTCAGACCGAGTCGCGGCACCCACGGACTC  
AAGACTCCAAAACCAACCGAGCAAACGAACTGCCGAGTTTCGCTTGGGGGAGGTGCGGGCAGGGCCGGCCCCGGC  
GGGGTCTGCCCCGGGCGCGCGCGCTTGACGCGCGTTTGGTTCCCCACCTTCCCCCGCAGCCTCAGCCCCGG  
AAGCCGAGCGAGCGGCGGCGCGCTCATCGCCGGGGAGCCCGCCAGGTGGACCGGCCGCGCTCCGCCCCAGCG  
AGCCGGGGACCCACCCACCCCGCACCAGCGCGCGCTTCGTTCCGCGCCAGCCTGACCAATGCCGC  
GGTGGAAACGGGCTTGGAGCTGGCCCCATAAGGGCTGGCGGCTTCTCCGACGCGCCCTCCCCACAGCTTCTC  
GACTGCAGTGGGGCGGGGGGACCAACACTTGGAGATTTTCCGGAGGGGAGAGGATTTTCTAAGGGCACAGAGA  
ATCCATTTTCTACACATTAACCTTGAGCTGCTGGAGGGACACTGCTGGCAAACGGAGACCTATTTTGTACAAAGA  
ACCCTTGACCTGGGGCGTAATAAAGATGACCTGGACCCCTGCCCCACTATCTGGAGTTTTCATGCTGGCCAAG  
ATCTGGACACGAGCAGTCCCTGAGGGGCGGGGTCCCTGGCGTGAGGCCCCCGTGACAGCCACCCCTGGGGTGGGT  
TTGTGGGCACTGCTGCTGCTAGGGAGAAGCCTGTGTGGGGCACACCTCTTCAAGGGAGCGTGAACCTTTATAAA  
TAAATCAGTTCTGTTTACCAGTGGCTCCTATCACCTACACTTCCAGGTGACGGCCAGACTTCCGTGGTCACTAC  
TCCTCAAACCTGCTGCCTCCTCCGTAGGGTGGGTCTGGGTGAGATCTGG

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**FIGURE 1388**

MEGATVGEGVDLTVLAQGGRVQTSRPSGLRCRPEPSGRGRTEETTGRVVRVEGRGKRGGLGKAPREPEPPTPPQSRP  
LLKPHPAPGKAQSTPIPSRLTHRWGRARDIAALGDSAPSPVAGARSRAGEPSRNPALLAMLVPVSHAPVRASSMGP  
GVEPRPARLAKRVAHDWLRPWPPPPRPQEGGAWVWAARRVLPPGILRASRTAVLSPGPRLPSHSARCACEGLAAL  
GTGGAARGVRVGVREGSTQDLRTLLWGRTKHLPGAGGAPGTRRFRLGALGICGLRPGDGLGGHAHALGLTECDR  
ARGRAKRGGRARRRKEGVRKATAAARRRVIYTFKNQPPAPRLRRPGRVRPHARDTSVPRSLARTACHH

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**FIGURE 1389**

AAGCTTTCCTCTTTGCATTTTGGCATTGAAAACCTCCGAAGAGCGGTTTTTGTTTTTTATTTAAAGAAGATGATA  
CATATGTGTACCCGATTCAAAACTAGAGAATAGAATTTAAACATAATTTTCAAAGTCTTCAAATATGCCTAAAG  
GTAACAATGTCATCTTTTAATTGCCAATTTCTCTACCACTTTCAAAAAATTACTTCCAAGGATTTAATGAGCTCC  
TTCCTTTCAACAGAAAAATGGACTATTTTCCTTTTCAGATTTACTATATGCTGTCACCTCCAGCTTTATAACCGCATG  
TGCATACACAAACATTTCTTTCTCTCTTGCAGGTGGCACAACAGGAAGGGGAAATCTGTGGTTTTAAATTCCTT  
ATGCCTCATCCTCTGAGTGCTGAAGGCTTGCTGTAGGCTGTATGCTGTAAATGCTAATCGTGATAGGGGTTTTTG  
CCTCCAAGTACTCCTACATATTAGCATTAAACAGTGTATGATGCCTGTTACTAGCATTACATGGAACAAATTGC  
TGCCGTGGGAGGATGACAAAGAAGCATGAGTCACCTGCTGGATAAACTTAGACTTCAGGCTTTATCATTTTTCA  
ATCTGTTAATCATAATCTGGTCACTGGGATGTTCAACCTTAAACTAAGTTTTGAAAGTAAGGTTATTTAAAGAT  
TTATCAGTAGTATCCTAAATGCAAACATTTTCATTTAAATGTCAAGCCCATGTTTGTGTTTTATCATTAAACAGAAA  
ATATATTTCATGTCATTCTTAATTGCAGGTTTTGGCTTGTTTCATTATAATGTTTCATAAACACCTTTGATTCAACTG  
TTAGAAATGTGGGCTAAACACAAATTTCTATAATATTTTTGTAGTTAAAAATTAGAAGGACTACTAACCTCCAGT  
TATATCATGGATTGTCCTGGCAACGTTTTTTAAAAGATTTAGAACTGGTACTTTCCCCCAGGTAACGATTTTCTG  
TTCAGGCAACTTCAGTTTAAATTAATACTTTTTATTTGACTCTTAAAGGGAACTGAAAGGCTATGAAGCTGAAT  
TTTTTTAATGAAATATTTTAAACAGTTAGCAGGGTAAATAACATCTGACAGCTAATGAGATATTTTTTCCATACA  
AGATAAAAAGATTTAATCAAAAAATTTTCATATTTGAAATGAAGTCCCAAATCTAGGTTCAAGTTCAATAGCTTAG  
CCACATAATACGGTTGTGCGAGCAGAGAATCTACCTTTCCACTTCTAAGCCTGTTTCTTCCTCCATATGGGGATA  
ATACTTTACAAGGTTGTTGTGAGGCTTAGATGAGATAGAGAATTATTCATAAGATAATCAAGTGCTACATTAAT  
GTTATAGTTAGATTAATCCAAGAACTAGTCACCTACTTTATTAGAGAAGAGAAAAGCTAATGATTTGATTTGCA  
GAATATTTAAGGTTTGATTCTATGCAGTTTTTCTAAATAACCATCACTTACAAATATGTAACCAACGTAATT  
GTTAGTATATTTAATGTAAACTTGTTTTAACAACCTCTCTCAACATTTTGTCCAGGTTATTCAGTGAACCAAT  
AAATCTCATGAGTCTTTAGTTGATTTAAAAAA

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**FIGURE 1390**

MSSFLSTENGLFSFQIYYMLSLQLYNRMCIHKHFFLSCRWHKPGRGNLWFKFFMPHPLSAEGLL

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**FIGURE 1391**

GGCCTCCGCCGCCGCTCGGGAGGTGAGGACGAGGAGGAAGCGAGCAGCCCAGACAGCGGCCACCTCAAGGATGG  
 AATCCGACGTGGTAGGCCAGAGCAGATACTGTCCGCGATTTAATAAATGAAGGAGAGCATTTCATCCAGCAGAAT  
 CCGTTGTAACATCTGTAATAGGGTGTTCACGGGAGAAATCGCTCCAGGCTCACAAAAGGACTCATACAGGTGA  
 GAGGCCCTATCTGTGTGACTATCCAGACTGTGGAAGAGCCTTTGTTCAAAGTGGACAGCTCAAAACACATCAGCG  
 TCTTCACACCGGAGAGAAACCTTTGTTTGTTCAGAAAATGGCTGCCTGAGCAGATTACCCATGCAAACCGCCAC  
 TGTCGAAGCACCCTACGCCAGGCTGAAGAGAGAGGAGCCACGGACACACTCAGCAAACATCAGGCTGCCGAC  
 AACAAGGCCGCCGCCGAGTGGCTGGCGAGGTATTGGGAAATGAGAGAGCAGCGCACCCCTTTGAAAGGCAAG  
 CTGGTTCAGAAGGCTGATCAGGAGCAGCAGGACCCTCTGGAATACCTTCAGTCTGATGAAGAGGACGACGAGAAG  
 AGAGGGGGCCAGCGCCGGCTGCAGGAGCAGCGGGAGCGCCTGCATGGAGCCCTCGCGCTCATAGAGCTTGCCAAC  
 CTGACTGGGGGCCACTCCGACAGTAGCTTGACACTGACTCTTCCACTGTACAAAAGTACTGCCCAGCATACTT  
 AAAAAGTAGATCCTTGGGCATAAGCTAAGCACCTTATTTGCTTATCATAGGCTGCTATTCTGTAGAAATTTATGA  
 AGAATGTTATTGCCCCAGAATATGGGGTGAGAGAGAACTGCACCTTTTTTAATATGGAATGAATTCATCGTAAAG  
 TTTAAATATTTTGTAAATATGGAAGTGCACAGTACAGGGTAGAAAACACTACATATTGTGGGAAGCTAGATTTTGCA  
 AGTTTAATGCATTCATTGGAAGCAGTTCTCAGAGGAAGCAGCTTTCTGAATAAGACACTTGTGTTGAAAAACAGAAT  
 GGTACAAATAGCCAAAGAAGATTAAACAGATTATTTATAAGATCATTTTTAACAATATATATTAGTATGTTTAA  
 CAATACTGTAAACACTGAAGCAAGCAAGAAAGTATAAAATATGTAAGATAGATAATTTTAATTGCAAATACTGT  
 GCCCACTAAGGCTAGAGAAATGGGAGGCTATTTTGAAGATGTTCTAAGTAATGGACTTAGAAGAAAATAGATAT  
 TTGAGGCTCTTGTAAGATGCACAATAGTTTGAATTTTGAATTTGGAGCAAATCAGTCTTATTCTATCTGGG  
 GCTTTACAACACTCAGTATAATGTTTAAAGTTTGAAGAGCACTTGTCTATCCCTAGCATGTTAACTTGGGAACCTTTGC  
 ACATTTTCATATTTCTCATTGCTGAAATTGAGTGATTAATCTTGCAAAGTCTAGGTAACATAGTAATTGGTAATT  
 TTAAAAATACATATTAAGGGCCCTGTAATGAGATTGTCACCTTGGAATTTTACTAAAGGGACACCTGCAGGGTTG  
 TTTTGTAGTGAAATGTTTGTAGATCTTTTGTAGCAAAACACTACATTTTAAATTGTACTGCTTGTGTTAGAATTATTA  
 GCAAATGGAAGCCTCCATATTTTATATTTTCACTGTCATAAAGCCACCTTCTTGCTTTACTTCAGAGTAACATGCCA  
 AGCTATTTTGTGTTCACTAAATTTAGCTATCAGTTAAACACTGCAGAAAATATTAGCTACTCAAATAAGTAGGCT  
 TCTGAAATAGTTTTAACTGCAAGTGTGTTAACTTGTGTGGTGGTTTGAAGCCATTTTTTCAAATAAAGTTATTAA  
 ACACCACTTTTATGTACTGAAGCATGAACAGAAAAATCAAGAGCTGAGCAGACCACCTCCTTTTATGTAGGCAAAAC  
 TTCCATCATTTTGGCTTTTGTCTTAAACAGAACTAAATGACATGCATAGCATGGTAACTTACAGATCGCTTAATT  
 GGAGTAAACTCAGAGTAATAGAGGGAAATATGGGCTCTTCAGTGCCTTTTTAGCTTTTTTGTAGTTGAAGACGTT  
 CCTACAGATGTAGTTTAAACATTACAAAGTAGGCTTCTTTATCCAAAATCCCAATGTGTCTAGTACACAGATA  
 GTTTAAATATGTAGCCACGGGAAGGGGAGGCATGTAATGTCTTGAAGAGGAGAAAAAGTATGAAAGAAGATA  
 CGATAGTTACGAATAATGTGTATGATGAGGACATACTTTAAAAATGTAATTCCTCTGTACAGTAAATTACAAATC  
 TTTAGGGATTTTTTGTAAATAAGAGAATTTATATTTGTAATGGTCTAAGAATTTTTTGTAAATGTGGTATATAGA  
 ATTTTAATTTGGAGCACTTATAAGCTGGTAAGAGAGACTATAGCATCTGAATTATCTTGGTTTATGTTTCAGCAT  
 TTCTCTAGAATTTTTGCTCTCAAATATGTGATTTAATGAACTAAAAACAACACTCATCAGTCTTGGGAAATTTG  
 AACTTTGATCAACTTAACTAAAGAAGGAAGGGTAGTAAGAATTTTTCAAATACAAATATTTGCCAATTCACAGAT  
 GATAACATTTAAGGCCTTCAAAGTAAGGGTTTTCTTGTCTCCAGTCAGCTTTTGTCAACTCTAATAGTTT  
 TTTCATAAACATTTTTTATTTGTATAATTGCAACAGTTTAAAGAAATTATCACAACATTTAGAAACATTTAAAT  
 GTTCTTTTTGATATAAGCTATATACTTGGAAGAAATACATTGGTATCTAAAATTTGAGGTGTGTTAAGACTGCTTT  
 TTGTTTTAAAAATGGTTTACATTCAAATTTTTGAAGTGTTTATGCTTCATATGGCTAAGTTGTAGTTTGGCAG  
 AGTTAACAGCATAAGAATAAACATGCTGTAATTTTTAAAGATGCTTTGAATAAAAATTTATTTTAATTT



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**FIGURE 1392**

MKESIHPAESVVTSVIGCFHGRNRSRLTKGLIQVRGPICVTIQTVEKPLFKVDSSKHISVFTPERNLCLFRKWLP  
EQIHPCKPPLSEAPLRQAEERGAHGHTQQTSGCRQQGRGVAGEVLGNERAAHPHFERQAGSEG

GCTTCCAGTTGGGATGGGGAAGGCCCTTTGTGTGTGTTATTGGGGGGAGGGGTTAAAAAATAATTATCCCAAACCTTT  
TTAATGTACTGCCNNNNNNNNNNNNNNNNNNNNNNNNNNNNCCACTATACCATTTTAAAGTTCTGACCTCAGGCCTCCAT  
TTGGGCCCGATGGCCTCTTGGAGGCTTAAAGTTTTCTGTACCTTGTGATGAATGTTAATAGGTGTTTTTATTATAC  
AAAGCTGAATGTCATTTCTCGTTTGTAGCTTTCTGTCACTCATTCATCTTCCCTCAGACATCACCACGTTTCTC  
TAAAGTCAGAAAACATTCCGTTTTTGGTCTTTTTTCAAAAAGTCCCAAATGCTGCACTCTACACATGAAGGCCCTC  
TCACACAGACGTGACGTCTCGCCAGAAAGAGAATGAATGACAGAAAAAAGAGAGACAACTCTAGGAACAA  
TGCCGATTCATTCCACGCAGCAGTATTGGGGGTGGTTCGGGGGAGGGGTGTTTCGGATTTTCTTTTNNNNNNNN  
NNNNNNNNNNNNNNNNNGGCAGCAACCATTATAAATGCCACCACATTCTACCAGCACAAAGGAAACATAGGCAGCA  
CTGAAAAAAAAAAAAAAGCTCATATTAATTAGACTGACAATATGGCCTTGGAAGGCTCTCCCTTGTGGAACCAAG  
TTGCCATGGGCCTTGGGTGCTCTGCGATAACGGGTGTGGGTGGTTTTGTTTGCAAAATGGCCAAAAAAAAAAAC  
CGGCTTCCCCGAGCAGCTGCCCTGAAAGTAGGGGTGGCGGCGGCGGCTGAGTTTATACATTAGTTCAGACCTA  
CTTGGTGGCATTAAACTGTTTGAATGCAAATTCGATTCAGATTGAACTTGTTAAGGGAGTTAACGAGGGCTGAG  
TTCAGCAAATGCTAAAGTGTTAATTTCAAATATGCAAATTTGGTACTGCAGTTTGTTATGCAATATTATATCACC  
AACCAGTATCACAAAACTCATAGAAGATATCATGTAGGCCCTGGGCTTTGGGGGGGTCCCAAACATGGTATGC  
AGAAATGTGATGGTTACAGGTCAGTACAACCTCAGTCCTTAGAACCCCTCCACACTTCAGCTCTGCACCCACTTT  
CCTGTCATTTATTTATATAGGACTGTAGTTTTTTTTTAGTTTCGAGAGCCTTTCGAAGCTTAATTTATATTCTTTCT  
TTGTACCTTTTTTCTAAAATTACCAAAGATATTACACAAAGGTAAATTATGTTCTCTGTTTTATGCTTTATCTGA  
TGAAGCCAAATATCCTCTTATTGTTGATCAAAGGAGGCCAAAAGAATTTAGAGGCAAATGACAAGCGATAGGCTAT  
TGCAACCTGAGAAAGAGAACTGCTCCTTCATCGTAAATTTAGAAGACCAAGTAGATAATGGAACCAAAGTTGTTA  
CTTTTTTCTAGTAGTTATTTTTCTTTTTCTTTTTGTGTACCTCTACAGAGACCAAACTCATTCTCTTAAAGAG  
ATTTTATGGGGCTACTGCAGATAAAAAATAGGACACAATATTAAAGGAGCTACAGAAGGAAGGGAGTCCCATCTCA  
AAAAAAAAATGAATGTATGCCACTGCAATTAGAGTATCCAATAAAGGAGACAGTTTAGAGTCAGGACAGAAAAGC  
TTCCATAATTGAACTAGATTACATAATAGTATTTCTAGAAAAAGAGATATTTTAGATTGTATGCCACTTTTGT  
TAAGAACTGTGCTGTGATCACTGTATTAATTTTGGTTTATCTTGGCATATATCCTTCAGTTTGTTTTTATTTTTA  
ATTTTTCTTTTTTTCCGATTAGGCTTTGGTCAGCATTTTTTCATTTAAAGAAAAGTAACACTCCCATCCACTCAT  
AAGCTTGGTACAAAACCTTCTCTGGCAGTTACTTTTGAAGCTTCACTCTGCTTCTGTATAAAGGGCAGTCTGTG  
GTCACGCAAGACTTTAAAAAAAAAAAAACAAAGAGCCCATAAAAACAGACAAAAACCTTTTCCAGGCAGCTTCAT  
GATGTGCAGGCAGTAGCCAGACAGGGTCATGGGAAGGGGGCCCTGTGCTTCTAAACTGAGTGGTTGCTGGTTAGT  
TTGGTATTCAAAGAGGATAAAAAATCTGGTAGATTAGTTCATTCTCAGCATGTGTAGCTAGACATGAGTAAAGAT  
AACAGCATGAGAACTGTTAGTACGCATACCTCAGTTCAAACCTTTAGGGAATGATTAAAATTTAAAAAAAAAAAC  
ATTTCACTCAGTTGCACTTAGTTCGTATGTCTTGCAATGCTTAGTCTAAAGACTGTAGCAAAAAAAAAAAAAAAGA  
AAAATTAGATTTTACATATCTTTGCAGGTATCACAGCCTTGCAAGAACAACCTGAAAAAAAAATTCTCAGGCT  
TTACAGCAAGCAAACCTTCACTATGATTTTACAATTCTGATTCTGTATCCCTGGGGGTTATCCAGTTGCTTCT  
TTAGGATGGGGTTTATTACGTTGTACATATATCCCGATGTGTCTGTGTGAATCTTTGTCTTTTTTGGGGGAGGGC  
AGAGGGCGGTTCTTTTTTTAGATATTGTTCTTAAAAAGGAATAAATGCATACACCTGTTTGTCAAAACACCTTG  
CTTTTTGTGCAACTGCTTTATATTAACGATACTAAAAAAAAATAGCTTTGGAAAAAAAAACTACTGTATGTAACGG  
AATTGCAGAATATGCTGCACATGTATTTTATTTAGTTATCCTTGCTTTAAGAATATTGGATGACATTTCTTGACA  
TGTGGGAGGGAGAACTCCCTAACTTTTTTTTTCTGCTTTTAACTGTAACATAGTTGAAGATTTCTTTTTTCTG  
TTCTCATTGATTGGAGCATTTTGTACAAGTTTGTANNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNNCGTGTGTGT  
AATCTGTTTTTTGATACATTCTATCCCTTGTTTATCCTACCCTGCCTTCTGGCTATCTTAAACAAGTTCA  
TACATTTGAAAAGAAAAAAAAAATGTTGTTTAAAAAATGTTTTCTCTGCTGCAGTAAATATTTTGCATGATGAAA  
TTCCAGGGTCACACTTTTCCAAGTTTATCAGTGAAGTAGTGATTAACAATGGGGAGTGTCAAACTATTGAACTT  
TTGTATAACACAAAAAACTTTACAAGGTGCCAAGATGTAAAGAAAATCTGTTACTTTTTTTTTTCTCAAAGAAA  
AGCATACATTAGGGAGGTAGTCCCGTGTGTGCAGACAAATGCACTGTCAGGAATGAGGATCCAACCTACCTGTCCC  
TAGAGTCCGTCTTGTAAGATGAGTTAGGCTGCCCCCTTGGACCAGCCACAAATGGAATATCAAGGCTTATGTACA  
TACGTGAAGAGTTACCACCAGTCCTGCCACCTTTGGACAGCTCTAACACCATCCCAGCATCCAGTCAGACCTAG  
TAAAGAAAACCTTGGATTCTTAACCCAAAGATAGGCTGTAAATCACTAGCTTTTTTTTTCTCATGAAAAAAAAATAG  
AGTTAAAAAATATTTCTCTCTTTTTCCATATTCCAGCTGAACTCCGTTTCCAAAGGCACAAAGAAGAGTGTGCTT

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**FIGURE 1393B**

ATTCAGATTTTGAATCTTTTTGGTACCTTTTGGTTAATGACATAGCCTCCTGAAATTCTGGATGTCTTCAAAGTC  
AGTTTTGCTTCTTTATCCTGAAAATCAGATTTACAATGCTGAAGGCATTTCTTGGGCCAGTGTAGCTCACGCAA  
TCTCTGCTACCCATAAGCCTTGATGAAGATGATACAGTCCGGACTGTGAGCATGGTGCTTCATGTATATGTGCTG  
CCAGTAACAAGAATTTTTTTGTTTTGTTTTGTTTTGTTTTGATAAGGCATAAAAGAAACTCATTCTTGACATCA  
ACTGTAATCCATCATTCCATGTCTGCGGATACAGACAATAAAAAAATGTTGTGTAGTCAGTACTAATTACTGA  
CATTATAAGCATTCTCAAATGCAATAAAAAATGCTGGTTGTTTACGCTGGTAGTAAAAGTTGCCACAGCCTAAGTT  
TGTTTCCCTTTCTGACCTGCTGATATTGTATGTTAGGCATATGCCTTAGGTTTATCACCAGCTGCTTCCAATGCA  
GAATTAAAATCAATCTTAAAGCTTTTCATGATCAGGGAAGGCTGAAGCTCTTATCCTCAGGATTTCCAAGTGAAAG  
TATCCACTTAGAGAATTGGGAAGTAAAAAAGAGCAAGAGATGTTATCTTTCTCTTGAGGAAGCACACTCT  
TATTTTTTTCATCAAATTTTATAAAGAAAAACAAAATGTTTAAATAACTAGCATTAAAGAGCAAACCTAAAATTTAG  
AGGAAAAGCAACTTTTCATGAATAATTCATTGAAAGATTTTACAGTCTGGCAAGATTAGGTCATCCAAATAAAAGTG  
CTAATGGTCAAAAACATGCACCGTCTATAATATTCTCATCAAGAAATCTTTTGCATATAATGATAAATGCTTAG  
ATTAGAACAAATGATTTTATAAAATATTCTATCAAAAGTATGCTAGATAATTGCATTTCATTGAAGAAAACAGAA  
CTTCAGTACCTAAATATTCCAGAAAAACCATCTTAATTTTGGAGATTTTAAAAAATAATTAGATGCATTTAGGAA  
ATGTGCTGTTTCTTTTTTAATATTACTCTATAGTATATATTCTAGGGATTAATGAATTTGAGCATCACCTTTCAAT  
AAAAAATTAAATTGCCAATATGAAAGCAGTATTTTAAAGTGCCAAACCGTGGTAACATAAAACCATTACATATAT  
AATTCAGAGCACATAATTCAGGGCAAAGGATGACTTGAAAATTAACCTCCAGTCTTTATTCTGCAAAACACCCA  
CCGATGCTGAGGATACAAGTGAACATTCTTTCCAGCATTGTTTTGAAAAGCCCATATTAGCAAAGTNNNNNNNN  
NNNNNNNNNNNNNNNNNNNNNNAACAAGTAGATTTTGCTATTAAGTTGCAAACTAGTGTCTCTTTGAATTAACAA  
TTATGCCCTATCTAGAAACCCCTTAGTCTCAATAATTAGCAAAACATTTGAACCTTTAATTCTCACCTGGCTACT  
GAGACTATAATCTTAGGGTTAATTCAAATTCCTGTAATTACCAGGCTTAAACCTAAATACTGCTTACAGCCTATC  
CATTAGTAACCATTTAAAAATGTACAGATACTTCTTTTAATCAACTGGAGGACCTAAACCAAGTATGACGATATG  
TTAGTGAAGATTTTGCTGGTTGAGGCATAGTACATTTTAACTTATATTTTCAAGGAATTGTTCTCAAGCAGGAACAC  
TCTTTTACATATTTATTTTCAAGGCTTGTCACCTCTCATAAACGAGGCAGCAAACCCAAAATATTGGCTCTTCTTATA  
AATAGGCGCCTTTATATAAAGAACATAAAACTCTTAAGACTAATTTACACCAACACAGGCAGCTTCATAATAGT  
AACCACCTCTCCCTCCCCACTAAAAAAGATAAAAAACAAAGTATAATTAGTCTTTCTTATTAGATTTTTGTCTTTG  
ATGATATTACGTATTTATGTGTAGGGTAGTAATCACAATTTATCCTTCATCTTCATTGTAGTTGAATCAAATAAA  
AGTATTCTTTATTCAAATAATGTGAAGTTGGGTGTCTCAAACCTTCATTTAATGAATTGATGAAAGGTTTAAAGAC  
AAAATTCAGCTTGAGGGGAAATTAAGTTACATACAAAAACACTGGTTTTAACTGTGGGACAATATTTGGATTAGA  
AAACCATCTCTAGATATAACCTACTTATATTTATTTTAAATGGTATTTTATTTTTTAAATAACAAAACCCAAT  
GTTGTCTTATTTCCACTTTGATTGTAAAATGACATTCAATGCTTAATACCAAAATATATATCTATATTCACATTT

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**FIGURE 1394**

FQLGWGRPLCVYWGEGLKNNYPKLFNVLPXXXXXXXXXHYTILSSDLRPPFGPMASWRLKVCTL

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**FIGURE 1395**

ACGAGGCTGAGCGGGACCTGCGAGCAGCGCGGGCGGCAGCCCGGGGGAAGCGTCCGGGACC**ATG**TCTGGAGAACT  
ACCACCAAACATTAAACATCAAGGAACCTCGATGGGATCAAAGCACTTTCATTGGACGAGCCAATCATTTCTTCAC  
TGTAAGTACCCAGGAACATTCTGTAAACCAACGAACAACCTCGAGAGTGCAGAGAAAATAGTACATGATTACAG  
GCAAGGAATTGTTCTCCTGGTCTTACAGAAAATGAATTGTGGAGAGCAAAGTACATCTATGATTACAGCTTTTCA  
TCCTGACACTGGTGAGAAGATGATTTTGATAGGAAGAATGTCAGCCAGGTTCCCATGAACATGACCATCACAGG  
TTGTATGATGACGTTTTACAGGACTACGCCGGCTGTGCTGTTCTGGCAGTGGATTAACCAGTCCTTCAATGCCGT  
CGTCAATTACACCAACAGAAGTGGAGACGCACCCCTCACTGTCAATGAGTTGGGAACAGCTTACGTTTCTGCAAC  
AACTGGTGCCGTAGCAACAGCTCTAGGACTCAATGCATTGACCAAGCATGTCTCACCAGTATAGGACGTTTTGT  
TCCCTTTGCTGCCGTAGCTGCTGCTAATTGCATTAATATTCATTAATGAGGCAAAGGGAACCTCAAAGTTGGCAT  
TCCCGTCACGGATGAGAAATGGGAACCGCTTGGGGGAGTCGGCGAACGCTGCGAAACAAGCCATCACGCAAGTTGT  
CGTGTCAGGATTCTCATGGCAGCCCTGGCATGGCCATCCCTCCATTCATTATGAACACTTTGGAAAAGAAAGC  
CTTTTTGAAGAGGTTCCCATGGATGAGTGCACCCATTCAAGTTGGGTTAGTTGGCTTCTGTTTGGTGTGTTGCTAC  
ACCCCTGTGTTGTGCCCTGTTTCCTCAGAAAAGTTCCATGTCTGTGACAAGCTTGGAGGCCGAGTTGCAAGCTAA  
GATCCAAGAGAGCCATCCTGAATTGCGACGCGTGTACTTCAATAAGGGATTG**TAA**AGCAGGGAGGAAACCTCTGC  
AGCTCATTCTGCCACTGCAAAGCTGGTGTAGCCATGCTGGTGAGAAAAATCCTGTTCAACCTGGGTTCTCCAGT  
TACGGAAACCTTTTAAAGATCCACATTAGCCTTTTAGAATAAAGCTGCTACTTTAACAGAGCACCTGGCGTGGGC  
CAAGTGCCTGATACTCCCTTACACTGAATCATGTTATGATTTATAGAAATACCTTTCCTGTAGCTTTTATAGTCA  
TTGTTTTTCAAAGACGATATACCAGCCCTCACCAGGTTTTAAAAAAGCACTGGTAGGCATAGAATAGGTGCTCA  
GTATATGGTCAGTAAATGTTCTATTGATTATCAATCAGTAAAAAAAAAAAAAAAAAAAAAAAAAAGGAGATTATAA  
AAGGGATGATGAACATGGAGCTGCATCTTTTTAAACGTTGTTTTTGTATGCTTCAGACTCTTAATGCTTTTATAT  
AAAGCTATCAACTGTATGTTGATCACAGTTTATAAGAAAGAACAAATCAAGATTGGCAATCCTTGCCGATCTTTT  
AGAAATACCTTTTCTGGAGAAAAAAATCCACATGAAGTGCAATAAGCTTATAAAGCTAAGTAGTTATTAATATT  
TCTATTAACATGATACAAAGGATGATGATTGTAAGTGTTTACTGACTGGCAGCTTTTATTTTCAGTATTAGCACAG  
CGTCTTGCCAGTGTGGAGGCCATGTATTATTTAGTTCAACTGGATGAAATGTTAAATAAACTCAGAATGAAAA  
AAAAAAAAAAAAAAAAAAAA

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**FIGURE 1396**

MSGELPPNINIKEPRWDQSTFIGRANHFFTVDPRNILLTNEQLESARKIVHDYRQGIVPPGLTENELWRAKYIY  
DSAFHPDTGEKMILIGRMSAQVPMNMTITGCMMTFYRTTPAVLFWQWINQSFNAVVNNTNRSGDAPLTVNELGTA  
YVSATTGAVATALGLNALTKHVSPLIGRFVPFAAVAAANCINIPLMRQRELKVGIPVTDENG NRLGESANA AKQA  
ITQVVVSRILMAAPGMAIPPFIMNTLEKKAFLKRFPWMSAPIQVGLVGFCLVFATPLCCALFPQKSSMSVTSLEA  
ELQAKIQESHPELRRVYFNKGL

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**FIGURE 1397A**

CCGGCCCCGGCCCCGGCCCCAGCCGCTCCTGCTGGGCGCCCCAACCAGGGTCCGGCCCCGGGGGGGGCGGGGGCCGC  
GGCCGCCGAGG**ATG**GGGAAATCCAACAGCAAGTTGAAGCCCCGAAGTTGTGGAGGAGCTGACCAGGAAGACCTACT  
TTACCGAGAAGGAGGTCCAGCAGTGGTACAAAGGCTTCATCAAGGACTGCCCCAGTGGGCAGCTGGATGCGGCAG  
GCTTCCAGAAGATCTACAAGCAATTCTTCCCGTTTCGGAGACCCACCAAGTTTGCCACATTTGTTTTCAACGCTCT  
TTGATGAAAACAAGGACGGGCGAATTGAGTTCTCCGAGTTCATCCAGGCGCTGTCGGTGACCTCACGGGGAACCC  
TGGATGAGAAGCTACGGTGGGCCTTCAAGCTCTACGACTTGGACAATGATGGCTACATCACCAGGAATGAGATGC  
TGGACATTGTGGATGCCATTTACCAGATGGTGGGGAATACCGTGGAGCTCCAGAGGAGGAGAACACTCCTGAGA  
AGAGGGTGGACCGGATCTTTGCCATGATGGATAAGAATGCCGACGGGAAGCTGACCCTGCAGGAGTTCCAGGAGG  
GGTCCAAGGCAGACCCGCTCCATTGTGCAGGCGCTGTCCCTCTACGACGGGCTGGTAT**TAGT**CCCAGGCTGGAGCTG  
GATGCCTGGGAACCACTCACCTCCTTCTGTGCCATGAGGCCACCTCAGCCCTGACACCAACCCCGTGCGTCCACC  
CAGCCTTCTTCCGCATCCACACACAGCCGGCTGCCCTTGACCCGGGAGGCCCCGGCTCTCCTCTCCCTGTCCCTG  
CACCCATCCCCCGCTGAAGCCACCGGCTCCAATTGCCAGCAACCTCTGCTTGTCCGGAACGACAACACGAAA  
TGGAAAAGGCTACAGCCCTCTGCATAAACCAAGGACTTGGCTGCCTCGCAGGCAGCCTCCGTTCCCTCCCGCTCTC  
TTGCGCGTGTGCTTTTGTTTTTTATTTTGAACAGACGTTTTTAAAAGAAAAAACAACACTACCTTCTGTCCCTAGA  
AGACACAGACTGACAGATGGGGTGAAGGCCTGGGGACCTCAGAGAACTCTGCCTTGCCCTCGTCCCTCGTCCCTC  
GGCAGCCGGAGAGGCTGTGGGTGGGCCGAGGGTGTCTAGGGGTTCTGCCTAGTCAACGTTATTTGTCTGCTCCCATC  
TTTTGGCAGCAAAACCACCTGCGTGGCTAGGATGATTAATTATGAGGATGATGATTTTTTTTTGTGATAACAGTAT  
TGTGCTTTTTGTGGGGAAAGTGAGGTTTTTTTTTATATACATATATAATTGATATCTTTAATTTATTGGTTGTT  
AACTGTTGCTGCTGCCTGGTGTGTCTCAGCTCCCAGGGCTGCGGGCCACCGTTTACATGTGCACGCCCTGACC  
CACCTGCCACGCCGACTTGGGAGGATGGTGGCCTGCAGCGGCCAAGAAGCCAAAAAAATTTTTTTTTTTTTCAG  
ATACTGTGCTTGATTTTTTGGAGAGGGGAGAGGTGGAAATTCCTAAATGGCTAATGCACTGTTCCCTCCAGCCCGA  
ATGCCTCCTGCCAAACCCCTTTTCCCTGCTGCCTCTGTCCCCGCATCCTTGTTCTCCCTGGGTCCGTAACATTT  
TTCCGAGGATGAACAGGGGACATCTTTAGGTTTCTCAACTCTTGCTTTGGTGTGTTGCCGAGCATGGAAAACAG  
GGCGCCTAAGGCTGGGAGCTGGAAGAAGGGGCATTGGGTACCCAGGCAGAGTCAGGAGAGGTGGTCTTTGAAGTA  
AGTTAGCAGAAATCAAGGGGACCCCGCTCCTTGGGCTGGGGAGGGGATTTCAAGATAGTTCATAACTCTCTCC  
CGCTCTGCCTTCCCTCCTTCTATCTGCTTTTTTCCAGTAACTGCATGGTGTCTTCCCTGGCCTTCTCTGGCT  
CAAAGGCTGGGAGGGAGGGAAGGAGAGAAGAGTTCCAGGCAATCCCATCAATATAGTCCCTACACCTGGGGCTGC  
GGCCACATGTCTTACGGAGGCTTCCAGCGGTGCCTGCCACTGAGGCAGGTGCGGCCCCAGGACCATCACCAGG  
AATGCGAGGCCACCCTGGACCAGAGGTAGGAGCCCCAAGGTCCGGCCCTTGCTCTTTGATTGTGGGCAGCCTCCTG  
CCCTCTCTGGGTCTCAGTTGCCCCATCTGCAGAGCGAGGAGGCCCGGGCTGGTTGGTCTTGAAGGCCCTTTTCCA  
TGCCGACATCATGTCACTCTAGGCCTGGGGTTTCACTTCTGTGGCTGGTGTGCTGTGGTTAAGTTTGCTTGAC  
CCCAGCAGCCCGAGGGACTGTCTGAGTCACAGCACAGCCCTATTGCGTGGCTGCTGGTGTGTGGGGTCACTTCC  
AGCAGATGAATGTGTATGTGGCACACCTTGTCCTTCCCGCAGCATTTCTGTTTCCCCCAGACCCCTTGAGCG  
CTCTTTGGGACCCAGAAGGAGTCTTGCACAGGGAAGGCTTGAGGTGAGAAGCCGCTTCCCAGACTGTCAGGGCC  
AGGCCTGGGTCTAGAATTCTTGCTGCTGCTTTGCAGAGTCAACAGCCCATCAGCCCATGTTTTAGAGGGGACACT  
TTGGTCCCTCGGTTCCACCCCTCAGCAAGCAGGCCTCCAGCCGAGGAAGGCCTCTGCCGTAGTGACGTGCGGTG  
TGGGGCTGCGTGGCTGTTCCCTTGGCTGGAGCATTACAGCAACCCAGCGTCCCCCTGAGGCGTTTATTGGCA  
GCCCCCTAGGACTGCACGCTGGCCCCACGGTAACCCCCCTCCCCACCAACATCTGCAGGGATGGGGTCACTG  
GTTCCACCTTACAGGCCACTTTGAAGGGTGGATTCTTTGAGGCCCTGCCAGTCGGCTCCCTGCTCAGCTGCTG  
GCCCCGGGCGACCTGGGACTCAGACCAACGGCTGAAGTTTCTCAGCTGGGCTCTGACCTGGGGTCTGGGGCAGGG  
AACGAACATGGTGGCTTTGGGCTGAGAGGATGAGGGAGGTCTTTCCAGGTCAAATTACTTTCTTTGGCCTCTG  
CCTGAGGCTCGATTTGCCTCTCTGGTCCAATGGGACTGACACTGTTGTACAACCTGACCTGTGGCTGAGGGTGTG  
TGGGCTTAAGCATGTGGACCCCTTCGGTGTGTCTGGCCTTCTCCATCGTCTGCTTGGCCTTTTGGCTTTTGA  
AGCCACAGGTGTGGCTTCTGGCCTTAGCAGATGGTATGCTTGGCGACCGCAGCCAGCATGCCGGTGGGCCCCACA  
GCCCCAGCCAGCCAGAGCTGCCGGAAGGGCCGCCCTTCCCGGCCCTGGCGGGGTGCTGGACACTGGCCATTTTC  
ACTAGAGTTTGCCTGGCAGGGACCGATCTCTGCCCCCTCCTCTCCCCAGGCCTCTGGCTGCAGTGATGCCGAGA  
ATCCTGAGCCAGGTGCCTCCTGAGCAGCCCGTGCCTCTCCACAGCGGCGTTTGCCACCCAATGCGGCTCGCTT  
CAGATGCTCTGATGCAGAGGGCACGCCCATAGTCCCTCTGCAGAGCCTCGCACTGGGGCCAGGGCAGGCACCAGC

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**FIGURE 1397B**

CCCAGGCGGCCAGTCGGCCACGGCCTGTCCTCTTCCTCGTAGCGTCTGCTCCTCACTTTGTGTTGATGGTGA  
AGGAGAATGTTCCGATTTTCCATGATCTAAGCAGGCCACGTTTAAAATAACATCAAGGCAAGCGTACGTGTCACC  
CTCTGTACTGACATCTCCTCCCTGAAATGCTTTTCAGTTTGACAGCCCGTTTCCTAGACAAGTGCACCTGGGGT  
TTCAGGAAC TTTGTGTTTTTTCGGAGGGGGTTGGTGGGGAGGTCGGGATGCCTGGGATCCCTTCCTGGAGAGGCA  
GGCTGTCTCTGGAAAAAGCCTCCATTGCCCACCCGCCAGGCGGAAAGTCACCCTGTTCCCAGCGCGGTTTCAGCA  
TTTAATTTTAAGGGAGCTAAGGAAGCGCGCGCGCCCCCTGGTGGTGGTAAGCCGCCAACGCACCTGGGGGCTGC  
AACCCCAACCGGACGGGTGGTCCGGAGGGAGGCTGGAGCGGGGAGGCGAGGAGGGGGCTGTGAGTCCTCAGAGGCC  
CTGGGCCACCACATTTCTGGCAGCGTTTCCCAGACACCCCTCTGCTAGGCCATCCCTGGATAGCAAGTGAATTAA  
CTTAAGGGCACTGTGATGGGAAGCCTTGCCCCCTCTTTTTTTTTTTTTTTTTTAATATCTGCGGAATAAACCCAA  
TGGTTAATTTTGAATGAATAAAAGGCTTTTGTTGAATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 1398**

MGKSNSKCLKPEVVEELTRKTYFTEKEVQQWYKGFIKDCPSGQLDAAGFQKIYKQFFPFGDPTKFATFVFNVDEN  
KDGRIEFSEFIQALSVTSRGTLDKLRWAFKLYDLNDGYITRNEMLDIVDAIYQMGNTVELPEEENTPEKRVD  
RIFAMMDKNADGKLTLLQEFQEGSKADPSIVQALSLYDGLV

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**FIGURE 1399**

GTCACCCCCAGCGGGCGCGGGCCGGAGCACGGGCACCCAGC**ATG**GGGGTACTGCTCACACAGAGGACGCTGCTCA  
GTCTGGTCCTTGCACTCCTGTTTCCAAGCATGGCGAGCATGGCGGCTATAGGCAGCTGCTCGAAAGAGTACGCG  
TGCTCCTTGGCCAGCTCCAGAAGCAGACAGATCTCATGCAGGACACCAGCAGACTCCTGGACCCCTATATACGTA  
TCCAAGGCCTGGATGTTCTAAACTGAGAGAGCACTGCAGGGAGCGCCCCGGGGCCTTCCCCAGTGAGGAGACCC  
TGAGGGGGCTGGGCAGGCGGGGCTTCTGCAGACCCTCAATGCCACACTGGGCTGCGTCTGCACAGACTGGCCG  
ACTTAGAGCAGCGCCTCCCCAAGGCCCAGGATTTGGAGAGGTCTGGGCTGAACATCGAGGACTTGGAGAAGCTGC  
AGATGGCGAGGCCGAACATCCTCGGGCTCAGGAACAACATCTACTGCATGGCCAGCTGCTGGACAACCTCAGACA  
CGGCTGAGCCACGAAGGCTGGCCGGGGGGCCTCTCAGCCGCCCCACCCCTGCCTCGGATGCTTTTCAGC  
GCAAGCTGGAGGGCTGCAGGTTCTGCATGGCTACCATCGCTTCATGCACTCAGTGGGGCGGGTCTTCAGCAAGT  
GGGGGGAGAGCCCGAACCAGGAGCCGAGACACAGCCCCCACCAGGCCCTGAGGAAGGGGTGCGCAGGACCAGAC  
CCTCCAGGAAAAGGCAAGAGACTCATGACCAGGGGACAGCTGCCCCGG**TAG**CCTCGAGAGCACCCCTTGCCGGTGA  
AGGATGCGGCAGGTGCTCTGTGGATGAGAGGAACCATCGCAGGATGACAGTCCCGGTCCCCAAACCTGTTCCC  
CTCTGCTACTAGCCACTGAGAAGTGCACTTTAAGAGGTGGGAGCTGGGCAGACCCCTCTACCTCCTCCAGGCTGG  
GAGACAGAGTCAGGCTGTTGCGCTCCCACCTCAGCCCCAAGTTCCCCAGGCCCAGTGGGGTGGCCGGGCGGGCCA  
CGCGGGACCGACTTTCCATTGATTAGGGGTCTGATGACACAGGCTGACTCATGGCCGGGCTGACTGCCCCCTG  
CCTTGCTCCCCGAGGCCTGCCGGTCTTCCCTCTCATGACTTGCAAGGCCGTTGCCCCAGACTTCCTCCTTTCC  
GTGTTTCTGAAGGGGAGGTACAGCCTGAGCTGGCCTCCTATGCCTCATCATGTCCCAAACAGACACCTGGATG  
TCTGGGTGACCTCACTTTAGGCAGCTGTAACAGCGGCAGGGTGTCCAGGAGCCCTGATCCGGGGGTCCAGGGAA  
TGGAGCTCAGGTCCCAGGCCAGCCCCGAAGTCGCCACGTGGCCTGGGGCAGGTCACTTTACCTCTGTGGACCTGT  
TTTCTCTTTGTGAAGCTAGGGAGTTAGAGGCTGTACAAGGCCCCCACTGCCTGTGCGTTGCTTGGATTCCCTGAC  
GTAAGGTGGATATTAAAAATCTGTAAATCAGGACAGGTGGTGCAAATGGCGCTGGGAGGTGTACACGGAGGTCTC  
TGTAAGCAGACCCACCTCCCAGCGCCGGGAAGCCCGTCTGGGTCCTCGCTGCTGGCTGCTCCCCCTGGTGGT  
GGATCCTGGAATTTTCTACGCAGGAGCCATTGCTCTCCTAGAGGGGTCTCAGAACTGCGAGGCCAGTTCCTT  
GGAGGGACATGACTAATTTATCGATTTTATCAATTTTATCAGTTTATATTTATAAGCCTTATTTATGATGTA  
TATTTAATGTTAATATTGTGCAAACTTATATTTAAACTTGCTGGTTTCTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1400**

MGVLLTQRTLLSLVLALLFPSMASMAAIGSCSKEYRVLLGQLQKQTDLMQDTSRLDPYIRIQGLDVPKLREHCR  
ERPGAFPSEETLRGLGRRGFLQTLNATLGCVLHRLADLEQRLPKAQDLERSGLNIEDLEKLQMARPNILGLRNNI  
YCAQLLDNSDTAEPKAGRGASQPPTPTPASDAFQRKLEGCRFLHGYHRFMHSVGRVFSKWGESPNRSRRHSPH  
QALRKGVRRTRPSRKGKRLMTRGQLPR

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**FIGURE 1401**

GCTGTGGACGAAGAGGCGGCCTCGGTGGTAAGTGGCGGCCGCTGGGACCCAGCCAGGTACCGGTCCGGCTCGGCC  
 CTGCCCCCTTTCCGGCCGCTCTCACTCCTTCCCTCGGCCTCGAGTTCCTCGTGGGCCCCGTGGGGGCCGCGCGGGG  
 TCGGGGCTGCGAGGCAGCGCCCGCCGTTCCATGGTAAGCGGTGCTACGGGACGTTTCGGAAGGAAACCTCGCTAGA  
 GCAGGGGACGCCTGGGCTCCTGGCTGACCACGGGGCCTTTGCACGGCCAGGGCTTTGCGACCGCAGTGTCTTCCT  
 TCTGTCCCCGGTCGTGCGCCGTGCCCCCTCAGCGCGGCTCACGTTTCGGAACACGTCTGCCTTTTCATGCCTCCCGA  
 AGAGCCTCCCCGCATCCCGTGCCCCCTGCTCGCTGCTGCCGCTGACCCTTGGGCGCTGCGCTGGTCCAGAGCGTG  
 TTGTCTCTGACGCCGTCAGAACCTGAGCTCCCTGCGAGCTGGGACTCCGCCGTGTCTTCATTGCCTCCAGTGCA  
 AAGCAACTGCTTGCAAGAGAACAAGTGTGTTTCAGGTGCACAGAGTAGAAAATTCAAGGAGCCTGAAAGGGTAT  
 TTGGTGAAGACTTGATGTGTTTTTCCCAGTCCTAACCTCCAAGGCCAGTTCTCCCCTGGGGCAGAGGGAAACCC  
 GTTTCTTACGGGCTGTCAAAGAAAGTCTATGCAGGAACATCTACGTGCGTTTCTGCAAAGGTGAGTTACTTTAC  
 TTGGGGCTCTTATACTTAACGTAGCTCGGAGAGCGCCCCATGCATTCAGATACAGGTGGGATTCCCTCCGAAACG  
 GAGTTTTATAGCACCAGACTTTATCCCCTTTCTGTAGAAAATTTAGGGTTTTTGCTGTCTTTTATAACGAACAAT  
 GCTAGCTTGACTATTGCTTGTACAAACCGTTTTTGGCCCAAGTCGGACTATTTTCTTAGGTTAAATTCCTTGGTG  
 CAGAAGTGCGAGGGCTGTATTTAGGCCCTAAAGGGGTGGTACCAAATCGCCCTCCCCCACCAGCATAAGAGGGG  
 GCCGGCGACACCCTTGCCCAAGCTGGATTTTGCAGACCTGGTAGGCGTGAGATAGTATTTCACTGTAGCTTGTGT  
 TTCCTGTAAGTATAGTCGAACGTCGTGATGTTTCTGTTACATCTATGTTACGTTGATCATTGTTACCACTGACAG  
 TCGTTTCGAGATTGGAAAATATGTTTATTATAAACGTTTGACTATTTAAAAGCCATTTGTATT

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**FIGURE 1402**

AVDEEAASVVSGGRWDPARYRSGSALPLSGRSHSFPRPRVPRGPVGAAAGSGLRGSARRSMVSGATGRSEGNLAR  
AGDAWAPG

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**FIGURE 1403**

AACAACTTTCTTTTATTAAAAATGTACATAAGTAAAAGGAACGTGGTTTAATTGTGCAAAGAGTAAGAAATACAG  
ATGAGCAAATAACACGTATTAAAGCCACCTACGATATACCACCCAGAAGTAACCAGGCTGTTGAATTTTATAGAGA  
CTGGGGTGCAAACACATTTTTTCACTCCCTTGTGCATATATCTGGGAGCTCTGCCATATACAGACACAGACGCGG  
TGTCCACAGGCGATGCCTCTGCTGGGAATGCTGCAAGCAGGAGTCTATCCTTTCCTGGTACTGGCTCGGGGGCCC  
TCCTCAGCGCCCAGGTCACCTCTAGCATCCAGGAGTCCAAAGGCCCCGGCTGTGCAGGCTGCAGAGGTGATCTTGGT  
GTGTTTTCTCCAATAGGCTACAACTCTGGCACCCATGGCTGGTGGCTGGCATTCAACTCTCCAGCAGCCAGGG  
AGTCCATTTTCTTGTTTCTCTGCTGGCCATCCTCAGGACTTGCGGCGGGGAGTGGGGGGCCCAGGGTGTGCTGCC  
ACCTCGCCCCGGCGCGGGTTGCGGCCCCAGGGCCCGCGCTCCAGGCTG

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**FIGURE 1404**

GCGCGGCCCATGGAGTCGGGGCTGCTGCGGCCGGCGCCGGTGAGCGAGGTCATCGTCCTGCATTACAACCTACACC  
GGCAAGCTCCGCGGTGCGCGCTACCAGCCGGGTGCCGGCCTGCGCGCCGACGCCGTGGTGTGCCTGGCGGTGTGC  
GCCTTCATCGTGTAGAGAATCTAGCCGTGTTGTTGGTGCTCGGACGCCACCCGCGCTTCCACGCTCCCATGTTC  
CTGCTCCTGGGCAGCCTCACGTTGTGCGATCTGCTGGCAGGCGCCGCTACGCCGCCAACATCCTACTGTGGGG  
CCGCTCACGCTGAAACTGTCCCCGCGCTCTGGTTCGCACGGGAGGGAGGCGTCTTCGTGGCACTCACTGCGTCC  
GTGCTGAGCCTCCTGGCCATCGCGCTGGAGCGCAGCCTACCATGGCGCGCAGGGGGCCCGCGCCCGTCTCCAGT  
CGGGGGCGCACGCTGGCGATGGCAGCCGCGGCCTGGGGCGTGTGCTGCTCCTCGGGCTCCTGCCAGCGCTGGGC  
TGGAATTGCCTGGGTGCGCTGGACGCTTGCTCCACTGTCTTGCCGCTCTACGCCAAGGCCTACGTGCTCTTCTGC  
GTGCTCGCCTTCGTGGGCATCCTGGCCGCGATCTGTGCACTCTACGCGCGCATCTACTGCCAGGTACGCGCCAAC  
GCGCGGCGCCTGCCGGCACGGCCCGGGACTGCGGGGACCACCTCGACCCGGGCGCGTGCAGGCCGCGCTCGCTG  
GCCTTGCTGCGCACGCTCAGCGTGGTGTCTCTGGCCTTTGTGGCATGTTGGGGCCCCCTCTTCTGTGCTGTG  
CTCGACGTGGCGTGCCCCGGCGCGCACCTGTCTGTACTCCTGCAGGCCGATCCCTTCTTGGGACTGGCCATGGCC  
AACTCACTTCTGAACCCCATCATCTACACGCTCACCAACCGCGACCTGCGCCACGCGCTCCTGCGCCTGGTCTGC  
TGCGGACGCCACTCCTGCGGCAGAGACCCGAGTGGCTCCAGCAGTCGGCGAGCGCGGCTGAGGCTTCCGGGGGGC  
CTGCGCCGCTGCCTGCCCCGGGCCTTGATGGGAGCTTCAGCGGCTCGGAGCGCTCATCGCCCCAGCGCGACGGG  
CTGGACACCAGCGGCTCCACAGGCAGCCCCGGTGACCCACAGCCGCCCGGACTCTGGTATCAGAACCGGCTGCA  
GACTTGACACCCTCGGCCCACGACTGTCTTCCCAAGTTTACAGACTTGTCTTTTTTACATAAAGGAATTTGTAGG  
AAATGCAGCCAAAGGTGCAGTCGGAAGATGCAGGGGAAATGTATTTATGCAGCGACACCCACAATGTGAACA  
AAAGACAAAAAATCTGTGCCCTCGTGGAATTGACGTTCTGCTTGGAACACAGAAAAGAACTCGGTGATGAAAT  
AATGGAGATGATTCCAGTGACAAACGACAGAGATGGTGTGATGGTGGTCAGGGAAGACCTCTCTGCAGAGGTAGTGA  
CTTGTGATGTGAGCTGAGACCTCTGTCTTGGGAAGACCAAAAGAAAAGCATTTCAGGATGAGGGAATGGCATGCG  
CAAAGGCCCTGAGGCTGAAATGTGCCATGTGTTCTAAGAAATGCAGCGATGCTGGTGTGCTGGAGCAGGGACG  
GAGGGGGAGAATGGGAGGAGACAAGGAGCTGAAGGAGTAGTTCGCCAAGGACCTTGTGGGTGATATAGAGGACTT  
CGCTTTTGCTCTGAGTGAGGTGGGAGCCATAGAAGCTTCTAAGCAGAAGAGGGACTTGCCCTAATTCAGGTGATC  
ACAGGTGTCTTGTGGCCTCCAAGGGAGGTTGAAAACACAGAAGGTGAAGGGGGGCTGCACTGAGCCACAGGAAC  
AATGATGGAGATTCCAGCTAAGCCCAGACCCCGTGGATTCTAGATAGATTTTAGAGGCAGCAGACAGAATTACTG  
AGGAATTGAGTGTAAGAGTGGAATAAAGTTATCAAGGACAATGCCAAGGTGGGGCACCCCAAATTTGACTTTG  
GGAGACTCAGCCAAATCCTATCTGGTAATAAAATTTCTTTTTTATTTTTCTTTTCTTTCTTTCTTTCTTTCT  
TTTTTTTTTTTTTGTAGTTGGGATCTTGTGCTCTGTACCCAGGCTGGAGTGCAATGGGCACAATTATAGCTCACT  
GCAGCCTGGAACCTCCTGGGATCAAGCCTGGAGTTCTTGCTTCAGCCTCCCTAGTAGCTGGGACTACAGGCATGCA  
CCACCATGCCCAGTTAATAAAATTTCTTCAAATGCAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1405**

MESGLLRPAPVSEVIVLHNYTGKLRGARYQPGAGLRADAVVCLAVCAFIVLENLAVLLVLGRHPRFHAPMFLLL  
GSLTSDLLAGAAYAANILLSGPLTLKLSPALWFAREGGVFVALTASVLSLLAIALERSLTMARRGPAPVSSRGR  
TLAMAAAAGVSLLLGLLPALGWNCLGRLDACSTVLPYAKAYVLCVLA FVGILAAICALYARIYCQVRANARR  
LPARPGTAGTTSTRARRKPRSLALLRTL SVVLLAFVACWGPLFLLLLLDVACPARTCPVLLQADPFLGLAMANSI  
LNPIIYTLTNRDLRHALLRLVCCGRHSCGRDP SGSSQASAAEASGGLRRCLPPGLDGSFSGSERSSPQRDGLDT  
SGSTGSPGAPTAARTLVSEPAAD



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**FIGURE 1406**

ATGTATAGTATTGCTCACGTTAGCAGTTTTCTGTAAGGAGGGCAAGTGT CAGGATAATAGGTGGACTTTTTACTC  
ACCTATTTTACCACAATCTCACCCTGCAGGTGATGGTCAATGCTTGCTGCTCCATCTTTATTCATCGTTAATGTT  
AATTTATGACAACTCAGGGGGAAAAACATAACAAGCCTAGTTTGGTTACAGGTACACACAAGCTTGAATATTTCT  
CTGCACTGAAATGAAAGTGGCATAGTTCATCACCACTGCTACATTTTGTAGAGCATCTTATCAGCCATAGAAAT  
AGGACAATCTATAAACTTTGGGGAGGGTGGGGGAGGAAATGACAAAGTGTCTGTCAAAAACAGGCATAATCTAA  
AACAAGGTGGATGTAGCAAATCTCTGTCACCTGCTTGAGAACTTTGAGCTTGTGGCAGTTTTGCAGACTTACATGA  
CTTCAGCACTTTACGACATATTTTTTACTATGAATGTTCAATACAATTTAATATTTATAACTGATTTCTGAGGGA  
TCTGCTCCATGTCTATTCTGTTATCTGCATGAAAACAAAATGTATGCCAATTT CAGTATGTCAATAATCAAGGTT  
TTAAATGTTTGAAGAAAATACAAACAAGATTGCTGATCTGTTCTGTATTAGTGACATTCTGGTACTTCTAGATT  
TGCAATAAATTTATGGATTTTTTATTTAAAGAGA

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**FIGURE 1407**

CIVLLTLAVFCKEGKCQDNRWTFYSPILPQSHPDGQCCLLLHLYSSLMLIYDMSGGKT

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**FIGURE 1408**

GAAGTTTTACTATGTTTAATAATTTAGTGAAATTTGGGCTATGTGTTTATTGATTCAGCTCAATCCAGAGGAAAA  
TTTTAAAGGCTTACAGCCTTAGGATTATAGGATACTATATAATACTTTTGGTACAGAGATAGAATTAAATAACAT  
AAAAATCAAAAATTTATTAGGCTAAAATTTTGAGGGAGAAGTGGTATGAAAATACAAATTCAGGAGTAAAGGA  
AAAGTGGGGCATTCCCTTGCTACTAAAAATTGCCTTGTTCCAGGTAAGACTGATCATAAAAAAATGGCCCTGTTCA  
TAAAATTTTTAAAAAGATCATAGTATCTATCAAATAACTTATATTAAGAACCTCCTGGGCTAAATTTAAAAAGTA  
ATACAACAGTTTTATTTAAACATGTAGTGTCTACGGTATGCCAGCACTTTGCAGCTATTTATAATGAGAAATTTT  
AGATGTCAATATAGCAATGTGCAAGAAGATAGAGATTTTCAAATTCACCTAAGAGTATCTGAGCATAAAATGTT  
AAGATTGCTGATCGGATGTGAGGGCGATCTGGCTGCGACATCTGTCACCCCATTGATCGCCAGGGTTGATTGCGC  
TGATCTGGCTGGCTAGGTGGGTGTCCCTTCCTACCTCACCGCTCCATGTGCGTCCCTCCCGAAGCTGCGCGCTC  
CGTGAAGAGGACGACCAACCCCGATAGAGGAGGACCGGTCTTCGGTCAAGGGTATACGAGTAGCTGCGCTCCCC  
TGCTGGAACCTCCAAACAAGCTTCCAAGATTGCTGATCTAGGGCCACTAAGTGATGAAGCAAAAAGGATGGCTAA  
AAAGGACCTCAACCCTTTTGACTTTAAAGGAAAATAGCTTAACCTTCAACCTGTGTGACATTTAACTTTTTGAA  
CCCAACCGTAAAAGCTATCTTCTAACCAACAAAAAGTTAATAATTACATTTGGAATTATACAGAATTAGAAAATT  
GGCATTTAATAAATACTCAATAATTTGTCCCTGGTTTTTAATTTTCAAATATTTTCTTTTGAAGAGCCAGATTC  
CAGTGATCCTGCCTCTCAGAAATTTCCACATTTCTTATTTTTCATTAGGCCTTAAGAAGCTGCATTTGTAACTT  
GTGTTTCATTATTAAAGCTTAATTTATTTTTATATAAATAGTATGTGCTTTGTGTACATAGAGAATTAAGTGAA  
TGAGTCACACAGATGTTGGCTGTTGTTAATGTGAAAATTAAACAGCTGTATCACATTTGAAAAATAAAGTTTC  
ATCTGAATGAATATAGCAAAA

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**FIGURE 1409**

SFTMFNNLVKFGLCVY

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**FIGURE 1410A**

AGAGCGAGCAGGGGAGAGCGAGACCAGTTTTAAAGGGGAGGACCGGTGCGAGTGAGGCAGCCCCGAGGCTCTGCTC  
GCCCACCACCCAATCCTCGCTCCCTTCTGCTCCACCTTCTCTCTGCCCTCACCTCTCCCCGAAAACCCCT  
ATTTAGCCAAAGGAAGGAGGTCAGGGGAACGCTCTCCCTCCCTTCCAAAAACAAAAACAGAAAAACCCCTTT  
CCAGGCCGGGAAAGCAGGAGGGAGAGGGGCCCGGGGCTGGCCATGGAGCTGCTGTGCCACGAGGTGGACCCGG  
TCCGCAAGGCCGTGCGGGACCGCAACCTGCTCCGAGACGACCGCGTCTGCAGAACCTGCTCACCATCGAGGAGC  
GCTACCTTCCGCAGTGCTCCTACTTCAAGTGCGTGCAAGGACATCCAACCTACATGCGCAGAATGGTGGCCA  
CCTGGATGCTGGAGGTCTGTGAGGAACAGAAGTGCGAAGAAGAGGTCTTCCCTCTGGCCATGAATTACCTGGACC  
GTTTCTTGGCTGGGTCCCGACTCCGAAGTCCCATCTGCAACTCCTGGGTGCTGTCTGCATGTTCTTGGCCTCCA  
AACTCAAAAGAGACCAGCCCGCTGACCGCGGAGAAGCTGTGCATTTACACCGACAACCTCCATCAAGCCTCAGGAGC  
TGCTGGAGTGGGAACCTGGTGGTGCTGGGGAAGTTGAAAGTGGAACTGGCAGCTGTCACTCCTCATGACTTCATTG  
AGCACATCTTGCGCAAGCTGCCCCAGCAGCGGGAGAAGCTGTCTCTGATCCGCAAGCATGCTCAGACCTTCATTG  
CTCTGTGTGCCACCGACTTTAAGTTTGCCATGTACCCACCGTCGATGATCGCAACTGGAAGTGTGGGAGCAGCCA  
TCTGTGGGCTCCAGCAGGATGAGGAAGTGAGCTCGCTCACTTGTGATGCCCTGACTGAGCTGCTGGCTAAGATCA  
CCAACACAGACGTGGATTGTCTCAAAGCTTGCCAGGAGCAGATTGAGGCGGTGCTCCTCAATAGCCTGCAGCAGT  
ACCGTCAGGACCAACGTGACGGATCCAAGTCGGAGGATGAAGTGGACCAAGCCAGCACCCCTACAGACGTGCGGG  
ATATCGACCTGTGAGGATGCCAGTTGGGCCGAAAGAGAGAGACGCGTCCATAATCTGGTCTCTTCTCTTTCTGG  
TTGTTTTTGTCTTTTGTGTTTTAGGGTGAAACTTAAAAAAAATTTCTGCCCCACCTAGATCATATTTAAAGAT  
CTTTTAGAAGTGAGAGAAAAAGGTCTACGAAAACGGAATAATAAAAAGCATTGTTGGTGCCTATTTGAAGTACAGC  
ATAAGGGAATCCCTTGTATATGCGAACAGTTATTGTTGATTATGTAAAAGTAATAGTAAAATGCTTACAGGAAA  
ACCTGCAGAGTAGTTAGAGAATATGTATGCCTGCAATATGGGAACAAATTAGAGGAGACTTTTTTTTTTTCATGTT  
ATGAGCTAGCACATACACCCCTTGTAGTATAATTTCAAGGAAGTGTGTACGCCATTTATGGCATGATTAGATTG  
CAAAGCAATGAAGTCAAGAAGGAATTGAAATAAGGAGGGACATGATGGGAAGGAGTACAAAACAATCTCTCAAC  
ATGATTGAACCATTGCGGATGGAGAAGCACCTTTGCTCTCAGCCACCTGTTACTAAGTCAGGAGTGTAGTTGGAT  
CTCTACATTAATGTCTCTTGTGCTGTCTACAGTAGCTGCTACCTAAAAAAGATGTTTTATTTTGCCAGTTGGACA  
CAGGTGATTGGCTCCTGGGTTTTATGTTCTGTGACATCCTGCTTCTTCTTCCAAATGCAGTTTATTGCAGACACC  
ACCATATTGCTATCTAATGGGGAAATGTAGCTATGGGCCATAACCAAACTCACATGAAACGGAGGCAGATGGAG  
ACCAAGGGTGGGATCCAGAATGGAGTCTTTTCTGTTATTGTATTTAAAAGGGTAATGTGGCCTTGGCATTCTTC  
TTAGAAAAAACTAATTTTTGGTGCTGATTGGCATGTCTGGTTCACAGTTTAGCATTGTTATAAACCATTCATT  
CGAAAAGCACTTTGAAAAATTGTTCCCGAGCGATAGATGGGATGGTTTATGCAAGTCATGCTGAATACTCCTCCC  
CTCTTCTCTTTGCCCCCTCCCTTCCCTGCCCCAGTCTGGGTACTCTTCGCTTCTGGTATCTGGCGTCTTTGG  
TACACAGTTCTGGTGTTCCTACCAGGACTCAAGAGACACCCCTTCCCTGCTGACATTTCCCATCACAACTTCTCA  
GACAAGCCTGTAACTAAAATCTGTTACCATTCTGATGGCACAGAAGGATCTTAATTCCCATCTCTATACTTCTC  
CTTTGGACATGGAAAGAAAAGTTATTGCTGGTGCAAAGATAGATGGCTGAACATCAGGGTGTGGCATTGTTGCC  
CTTTTCCGTTTTTTTTTTTTTTTATTGTTGTTGTTAATTTTATTGCAAAGTTGTATTACGCGTACTTGAATTTTC  
TTCTCTCCACTTCTTAGAGGCATTAGTTAGCAAAGAGGTTGGAGCAACAACTTTTTTTTTTTTTTTGCACAA  
TTGTAATTGACAGGTAATGAAGCTATTTGTTAAATATTTGCCTTTTTTAAGTAAAAAAGAAAAATCAGAACAGGG  
CTATTTGAAGAATTATTTTATACAGATTCTGCCTTGTTCATAGTATGAGGGTTGAAGACGGAAAAACAATCTA  
AGGGTCTCTCATTTTTTTAATTTTGTGTTTGTTCAGTTTGGTTTTTTTTTTTTTTTGGCGCTGCTAAGAAGCTAAAG  
TCATCCATCCTTATTCACGTTGACAGTACCTAGCTGTAATGTTTACAGAGTGTGCTGCTATTTTATAAACATTT  
TTATAATATATTATTTTACTGCTTAAATTCCAAGTCTGAAGTAGATGGTTGAGATATGAGTTCTTCGTACTGGA  
AAAGCCCTTCCGTAGTTTGTGTTTCTTCTGGTAGCATATTCATGGTTGTTTTTTTTTTTTTCTTTTTTGGTTTTTTGG  
TTTTTTTTTTTTTCTCTGATCACATTCTTCAAAGACGGAGTATTCTTTACCTCAGGTTTACTGGACAAAATCAAT  
AACTACAAAAGGCAATGATTACGCTTTTTGTTTTTATAATACCTCACAACCGTACAGTTTCTGCTTGGGAGCCCCA  
TTCGCATGAGGAATACAGAAGCAGTGTGAGCAGGGCTGACTCCCTCTCAGGTGGAAGGCAGGGCGGTCTCACTCC  
CAGGGACCTTTTTGGTCATGGAGGCCATCGGGCTCCAGTTAGACCCTGGTATCCTCATCATGATGGAAAAAATA  
CATTGAACCAAGGGATCCTCCCTCCCTTCAAGGCAGACGTTAGTACAAACATTTATGCGGTAGGCTCAGATGT  
CGTAATTTGCACTTAGGTACCAGGTGTCAGGAAACAGACTAAAAAGAATTCCACCAGGCTGTTTGGAGATCCTCA  
TCTTGGAGCTTTTTCAAAGCGGGGCTTCATCTGCAAAGGGCCCTTTCATCTGAAGTTTTTCCCTCCGTCTTT

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**FIGURE 1410B**

CCCCCTCCCCTGGCATGGACACCTTGTGTTTAGGATCATCTCTGCAGGTTTCCTAGGTCTGAATCTGCGAGTAGAT  
 GAACCTGCAGCAAGCAGCGTTTATGGTGCTTCCCTTCTCCCTCCTCTGTCTCAAACCTGCGCAGGCAAGCACTATGC  
 AAGCCCAGGCCCCCTCTGCTGAGCGGTACTAAACGGTCGGGTTTTCAATCACACTGAATTGGCAGGATAAGAAAAAT  
 AGGTCAGATAAGTATGGGATGATAGTTGAAGGGAGGTGAAGAGGCTGCTTCTCTACAGAGGTGAAATTCCAGATG  
 AGTCAGTCTCTTGGGAAGTGTGTTTAGAAGGGTTTCAGGACTTTGTGAGTTAGCATGACCCTAAAATTCTAGGGGA  
 TTTCTGGTGGGACAATGGGTGGTGAATTTTGAAGTTTTGGAGAGGGAAGTGGAGCAGCCAGCAAGTAAGCTAGCC  
 AGAGTTTTCTCAAGAGCCAGCTTTGCTCAGCACACTCTCCTGGGCCCCAAGGAGTCCCACGGAATGGGGAAAGTG  
 GGAACCCTGGAGTCTTGGGAATCTTGGAGCCTAAAGAGAAACCGAGGTGCAAATTCATTTTCATGGTGAAGTACC  
 CTTGAGCTTAAACAGAAAGCAGCAAATGAAAGAACCAGGACAAATAAGGAAGGGCACAAGCCTACCCGACTCTATTT  
 ACAGTCTGTAACCTTCCACTCTTCCCTGTAGTCCCGAGGCCCCCTGGGTCTTCTAGCTTTTCTCTTTCCCATCCTT  
 GGGGCCTTGTGTGATGATGGGTGTGGGGCTGCCGATGGGAAAGTCGGGGGTGTTAGGCTTTTCTGCCTGCTCCT  
 GCTTAAACACAAGAAGGAATCCTGGATTTTGGCCTCTCCTTAGCTCTTAGTCTCTTTGGTAGGAGTTTTGTTCCA  
 GAGGAGCTCTCCCCCTTGGATTTGAACTTGCTCTTTTTTGTGTTGTTGTTCTTCTCTTTTCTTTTACCTCCC  
 ACTAAAGGGGTTCCAAATTATCCTGGTCTTTTTTCTACCTTGTGTTGTTTCTATCTCGTCTTTACTTCCATCTGTT  
 TGTTTTTTTTCTCCATCAGTGGGGGCCGAGTTGTTCCCCCAGCCTGCCAAATTTTGATCCTTCCCCCTCTTTTGGCC  
 AAATCCTAGGGGGAAGAAATCCTAGTATGCCAAAAATATATGCTAAGCATAATTAACCTCCATGCGGGTCCATAA  
 CAGCCAAGAAGCCTGCAGGAGAAAGCCAAGGGCAGTTCCCTCCGCAGAACACCCCATGCGTGCTGAGAGGCGAGC  
 TCCTTGAAGAAGGGGCTGTTCTTCCAGGAGGCCTTATTTTGAAGTGCCTCAGGACCCCACTGGAGAGCACAGCAT  
 GCCTTACTACTGGGTCATCCTTGGTCTATGTGCTCTGTACTGGAGGCTCTGTTCTGCCTCTTATCAGCCAGGTCA  
 GGGGCACACATGGCTTAAGTGACAAAGCCAGAGGAGAAGACAACCCTGACAGCATCACGCTGCATCCCATTGCTA  
 GCAGGATTGGCAACTCTTACAGACGGAGCTGCGCTTCCCTGCAGTCTAGCACCTCTAGGGCCTCTCCAGACTGTGC  
 CCTGGGAGCTCTGGGACTGAAAGGTTAAGAACATAAGGCAGGATCAGATGACTCTCTCCAAGAGGGCAGGGGAAT  
 TTTCTCTCCATGGGCCACAGGGGACAGGGCTGGGAGAAGAAATAGACTTGACCTTATGTCATGTAAATAATTGA  
 TTTTCTAGTTCAAGAAGATAATATTGGTAGTGTGGGAATTGGAGGTAGGAAGGGGAGGAAGTCTGAGTAAGCCAG  
 TTGGCTTCTAAGCCAAAAGGAATTCCTCTTTGTTTATCTCTGAGACAGTCCAACCTTGAGAATAGCTTTAAAGGG  
 AAATTAATGCTGAGATGATAAAGTCCCCTTAAGCCAACAAACCCTCTGTAGCTATAGAATGAGTGCAGGTTTCTA  
 TTGGTGTGGACTCAGAGCAATTTACAAGAGCTGTTTCATGCAGCCATCCATTTGTGCAAAATAGGGTAAGAAGATT  
 CAAGAGGATATTTATTACTTCCCTCATACCACATGGCTTTTGATGATTCTGGATTCTAAACAACCCAGAATGGTCA  
 TTTTCAAGGCACAACGATACTACATTTCGTGTGTGTCTGCTTTTTAAACTTGGCTGGGCTATCAGACCCTATTCTCGGC  
 TCAGGTTTTTGAGAAGCCATCAGCAAATGTGTACGTGCATGCTGTAGCTGCAGCCTGCATCCCTTCGCCTGCAGCC  
 TACTTTGGGGAAATAAAGTGCCTTACTGACTGTAGCCATTACAGTATCCAATGTCTTTTGACAGGTGCCTGTCTT  
 TGAAAAACAAAGTTTCTATTTTTTATTTTTTAAATTGGTTTAGTTCTTAACTGCTGGCCAACCTTTACATCCCCAGCA  
 AATCATCGGGCCATTGGATTTTTTCCATTATGTTTCATCACCTTATATCATGTACCTCAGATCTCTCTCTCTCTC  
 CTCTCTCTCAGTTATATAGTTTCTTGTCTTGGACTTTTTTTTTTCTTTTCTTTTTTTTTTTTTTGGCTTTAAAA  
 CAAGTGTGATGCCATATCAAGTCCATGTTATTCTCTCACAGTGTACTCTATAAGAGGTGTGGGTGTCTGTTTGGT  
 CAGGATGTTAGAAAGTGCTGATAAGTAGCATGATCAGTGTATGCGAAAAGGTTTTTAGGAAGTATGGCAAAAATG  
 TTGTATTGGCTATGATGGTGACATGATATAGTCAGCTGCCTTTTAAAGAGGTCTTATCTGTTTCAGTGTTAAGTGAT  
 TTAATAAATAATAACCTGTTTTCTGACTAGTTTAAAGATGGATTTGAAAATGGTTTTGAATGCAATTAGGTTAT  
 GCTATTTGGACAATAAAGTACCTTGACCT

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**FIGURE 1411**

MELLCHEVDPVRRVRDRNLLRDDRVLQNLLTIEERYLPQCSYFKCVQKDIQPYMRRMVATWMLEVCEEQKCEEE  
VFPLAMNYLDRFLAGVPTPKSHLQLLGAVCMFLASKLKETSPLTAEKLCIYTDNSIKPQELLEWELVVLGKLKWN  
LAAVTPHDFIEHILRKLPQQREKLSLIRKHAQTFIALCATDFKFAMYPPSMIATGSVGAAICGLQQDEEVSSLTC  
DALTELLAKITNTDVDCLKACQEQIEAVLLNSLQQYRQDQRDGSKEDELDQASTPTDVRDIDL

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**FIGURE 1412**

AAAAAAGAAAAAAAAAATAAGTGAGCTGAACTCACCTGAAGTGGTTTACTTCTGTGGGTAAAGAAGTTCTAGTCA  
GTGTTCA**TAGT**CGTTTTCGTTTTGATAATTGTTGAACCAATTTTGTTTTTTAAACCTTTAGACTCTGAAAGTAATA  
TTTTGACTAAGAATGTAAATATTTCCAACTAAATTACTCGGGAAGTAAACGCTTTTTTTAAAGTATTTTTACT  
GGTTTTATACCAATATTATATGCAGAAATCACAGGATGAATTTAGAATTAAATCTCAATTAGTTCACTTTGGCCT  
AGATTTATGAAAAATGCATGCCTCGTAAAGAGTCCACTGTATTCACGAGTAAAGTTGCTTTTAGTGTTCACTTGA  
TGACTTGGAGAGTAGGAATTTGCAAAATCTGAATTTAAGGAAATCTTTAGGATAACCATTTCAAAAAATAAAA  
TTGCTATGCAATCTTGAATATTTCTCTTTTGCCTCGTAAATGAAAATGCATTACAGTTTCTGTAAATTATTT  
AGCAGCCTTAAAGTTTATCAAAAAATTGTCCAGATTCCACGTGCAGCATGCTTGGCCCTGCATTTAATTTAAGAA  
GGATTAATAATAATGCTCTGAATTTTTTCGAAAGGGATTCTCCTAAACCCACCCACTTCTCTTGCCAGGCTGCTT  
TTAAAAATATTTTTTTATTTTTTACTTATTTTTTAAATTTTCTCTTTTTATTTATTTTTTGTTTTCTTGTTAGCC  
CCCTGTTATATGGGAGAACGAAAATTGTTATATTTTGAAAGTACTTATTACATTATTTTTATTTTAGTATCTTGA  
TGCTCCTGTCAAAAGGGAAATGAGGCTTTTTAAAAATAAAGTACCTTAATTCCTTTATTGACTTTTTGCCCTAAATT  
GCTAGGTGTGACCCAGCAATCTTTTAGGAAGAGATTTTACAGTGGTGCTTTATTTATATCAATAATCCAGTATAG  
TTAGGCTGTTCAATTCCTCATAATAGAGTACATAACAGAAAAGTGGGACTTTCACATTTTCATATTTAGGCACGTT  
CCAATTTAATTCAAAAATACTCTGTAATTCTACATCTAAAAAAACCGATTCCCTAATTCGAATTTATTGGTACC  
AAAGCTCTCTTTGGCTATAGACAATTAAGAGTTGACCTTTTAAAGTTAATGTATATGCTTAAAAACAGTTTTAGGA  
AAATATTTGGTAGACAAAGAGTTTCAACTTTAAATGTTCACTATGTCATTTAGTGTCCAACCTTTACGGATAGGTT  
GACTATCTAAATAGGCATTTTTAGTCATTAAAAAAAATCTAGTCACCAGGAGGATCCCTATAACTCAAAATAACT  
TGTTTGTAAGAAAATTTGTTTACTTACCCATTAGTAAGTTCCTGCATATTCATTATAAGATGGCAAATCAAAC  
TTTTCTAGGATGAAGACAGCTTATTTTTAAGTTGTATAGTCTTAGTTGGTTTAGGGTCTCAATTTTAATTAATAA  
AATACTTGGTTTTTATTTGCTTGTCTTTTTGAATTCCTGTTTTAATAATTTTAAATGAGCACAAAGAATGTTGA  
AGTTCAGATTAATCTCTCTGAATGATGTTTTTTCTCTGTGATGAGTTGTTTCTGACTTTTTTCCTTTGTAT  
TTGTAATGTTGATTAAGATGTAAATAAAAAGTGTGCCTGATTATTTTTGC



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**FIGURE 1413**

KKEKKISELNSPEVVYFCGLRSSSQCS

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**FIGURE 1414**

GCGAACTGGAGCGGGAGGCGGGCGGCCGGAGGGCCCAGGACAGCCCCGGGAGGGCGGGCGAGGCGGAGCAGGAGCGC  
 CCCGGCTCCGGCCACATTCTCAGAGTCAGGAAAAGGGGCGAGAGGCCACATGTCTCCCTCTCGCCCAACTGAAAA  
 CGAAACGGCGCTCCAGCAGATTGGGTGGAAAGAGCTGGGTCTCTTTTCTCTGTTTTTACGCTAGAAAGGGCTTG  
 TAAACATTGTTCCCTTTTAAATGACCTACCCAGGCATTGTGTTGGGCACACTTCTGTCTGGGGTCATCGTTCC  
 TAGGTGGCTTCGGACCTGGGACTTTTCCTGTATCTGCACATTGTCGTTTTATACACAATTGCCAAGGTGGGACTG  
 CTTTCAACTTTACTGTGCTTGAAGCTGCAGAGGTTCTGCCCTGATGTTTCTGGAATAATGCTGAGGACTGCCTT  
 TCGGGTAGCCGCCCTATTCAGTTCACCTTCATCTCGGAAATACCTGACCCCTGCCTTGGATCCAGCGGCCCTCCTG  
 AGAGCTGAGGAAGGAGGAAATCCTATGTGTCTGCTCCCGGAGCTGCCACAACCCATCTTCCACAACCTCGGAACT  
 TGGAAAAAGGAACCCAGGACACGACTTTGCTTTTCTTTTGGACCTAGTTGGTGATTATACTCTGTCTCCCATGGA  
 GACCACGTCTTGCACTCTTCTTTCTATATGGGATTTAGGATAGAAATTAAGAAACATATTATTTTGGAGTCT  
 TGATTTGGAGAAAGGTAGTATTACAGGAGGAAGTAGGCTATGATACACATAGAAAATTTGAGGACAGTGTTACTTA  
 ACAAGGACATTTCTGTCTCTGCAGAAGTCACAGCTTGGAGGAAACAGTTTGCACTATTTGATGAGGAATTTGGC  
 CACCAAACCACTGATACTTTCCCAAAGGTTTGGCAGAAATTGTTTTTTGAGTGGCTCACCAGAGTACCCAGAAGA  
 ATCAGTATGGAATTAGAGGACAGTGGCCTACCCTAAATAAGACATGAGTGATGTATAAAGTCTAGTGTCAATTT  
 ATTCAGAAAATATCAAATTTATTCTGGGAGCTATGGGTCAAAGTTGATAGGCACAAACAAACAAAAACGAAAGGT  
 ATTTTAAATTCACAGCTTGGATAAGTAAAAGGGAGATGTTGTCATTTCTTCTTCAATCCAACCTTTAGATTTTC  
 AAGCCGAAAAAGGTAATTAGAAGTTAGAAATTGTTATTGCCAGAAATAGCTCTAAACCCTG

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**FIGURE 1415**

RTGAGGGGRR AQDSPGRAARRSR SAPAPATFSESGKGARGHMSPSRPTENETALQQIGWKELGLFSLFFT LERAC  
KHCSF

**FIGURE 1416**

TCACATTCTATCTGTTTATACGAAGGTTGTAGACACACAGCGTATGTACATATGCCTAGTTGCTCTCATTCCCTT  
GTTTCACATCTCAAGCCTAACCCAGACTGAAAAGGTTTGAAGGCTGAGATTATTCATCACCCCATCATTATAGA  
AAGCAGGGCTGGCCCAAGGTTCTCACAGTGGGAGCAAGGTGGATTTTAACTCTGATCAGTGTTGTAGCTCAAATA  
TAAAAAGAACTGCAGCACAAAAGTCACAAGGATAAATGATCCCCTCGTTCTTCTCCATAAAAAATAAGCAGCCAA  
TTGAAGGTGGAAGTCAGTACAGTGGGCATTCCCAGAGGCGACAGAACCTAAGATTCCATTTCTAAAGACACTGC  
TCAACAAGAAGACCACCTGGGATGTCTTACATAAAACCAATTGGCCTGGCAGCTTTTGGCTGAGTTCTCTATTCTG  
GTTCAAGCCAGCATCACAGCCTATCTGTGGTTTTAACAACCTGATGGAATTTGTATTTTGAGAACCCCTCATCCGTT  
AGCATGAAGCAAACCTCAAAGCATTGTTGCTCATCAGTTGTCACTGTTTGAGAAAGATTTTGATTGTGTTACTTG  
TAGTGAAGCTTGACCATACTTCTCCAGGGGCTTTTTAAAAAGATGAATGTGTGCTGAGCTTGTTAGATTTGTCCCATG  
AATGAAACCACAAGCAAATTCTCTTCTCTTCCAGCCTCCCTTCCCTCCTTGTGTTCTTCTCAGTGGCCATCTGT  
GCATTATGTTCCCATTTGCCAGGCCCTCTTCAAGCAGCTTATCTATGAGTGAATTCAGAACTTCAAATTATAAAG  
GACACCCAGATAATTGGCCTGTTCTCCAAAGTATCTGTCCCCTGTGCTGCTGCCAGATTTCTTCTTAATGAATA  
CATCCAGTGACAGTGGGATTCTTGAGCTTGTCCGTATCTGTGAGAAAATGAGCTCTCCTGCTTTGTAACAGCTTG  
TGGCTCAGGGAAAAAATGACAGCCATTGCACAAGTTTCTTTGAATGTAGTTTTCTTTCCCATAAATGATACTT  
TGAGAATACAGTTAAGGGGTTATTAGTTTTCTATTTTCATGCTTGGCCTGTGTGTGAGAATAACACAAGCTGTCAC  
TGCAAATCAGTAGCTAAAAATGCTTTGTCTGGTTAATGTGAACATTTAATATTTGGCTCAATTAATAAATTAACCG  
ATGAAAGTACATGTCATTGGAATTTGAAAATACCTTTTGTACGGAATACTTAAAGGGCATCACCCATGACTAAAC  
CAGTGCTTTTAAATATGGAGAATATGGGGAAATTTAATATGAGTTGGGATACTTGACTCTTTTTTTAAACCTC  
TCTACCTGTTTGGCACAAACAGGGTATTGATAAAGAGTGGGCTCATTGTTATGGCAAAGGATTCACTTGCATCTCT  
GTGTTTTTAAGTGGGTAATTGTTTTTTTGCACCTCAGTCACATGATTAAAGCAGACAGAACAAGAGATCAGTTATT  
CATTTATACCATACTTTTAAAAAATATTGAGCCAGGCCCTGGGGAAGTGGGAAGTGAGAGCCAGAGCGGCGTGG  
CTGATAGTCTAGGGCAGTGCTATCCA

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**FIGURE 1417**

HILSVYTKVVDITQRMVICLVALIPLFHISSLTQTEKVLKAEIIHHPIIIESRAGPRFSQWEQGGF

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**FIGURE 1418**

CTTCTAATCATTCTAGAAATGCAAATTCCAAATTCAAATTGATAGTTTTTCATTACAGTTCTCTGTCTTTCCCATC  
TATCTTAAGACAGGAGCTTTCCCTCCCTCCCTGCACCTGGCCCCCTTCTCAACAAAGATATTTCTACAATTATTA  
CCACTTCAGCCACTGCTTCTAAAACAAAGAAGGAAAAAGAAAGTCATTCATGAAGATGTAACTTTGTCAGGGTA  
AGAACATTTTTTACTCATGGCCAGGTGATAAGATATCAAGAGTTAGGGGTGAGGACAGATACCAAGGGTGGAGAA  
TTTTCACTAAAACTAGTAGGATTCTTGCTTAACTGGATTCTATAAGACAGAAAAGGAAGCCCAAGGTCAGGGTC  
TAGTGGAAGAGAAGGCTCCGGGGAGCCCGACCTGAGTTTGATCTAGGAGAGTCTTTGTCAATATCCTGTAGAATA  
TGACCTTCACCTCATTCTTTCTTTCTCAAGTGTATCTGGACTGTATTTGGCCTTTTGGGCTTCCAGGTGACTTTT  
AGAGTAAAGTTTATCAAGATCTACAAAATAGCTACTGAGATTTTGATTTGAATAGTATTTCTTCCTGATAATTC  
TGAGTAAAATTCATTTTAAGGAAGTAGGAGGGGCGAGTGGCCTGATGAAAAGCAAAAATGAAGAAAAGAATAAGGA  
AAGACACAGTTTTGCCATCACCAGCCAGTGTTTAGTGATCTTAAAATAGCTGCTTTTGTCTTTGAGCATCATTTG  
TTGGGTATGGAGTTGCAGAAGTTGGGTTGAGGGACACTGGCTTCTAGAATCAAATATTGGCCTCCATAGAGTGTT  
TCTGTACAGTGAGTTGGGAGGATGGGCAGGGGCCACTGAGGACTGTGGCGTGTCCCCACGTTAGAGTGATCTCA  
CACAGAGCCTGTCCTGAAAATATAGTTATTTTTTAAAAGTGTTTCCCCCTCCTTTTCATTGGCCATTTTCTCTTT  
TACTACTCTTTACCTAGCAAAGGGTGGGCATGAGAAACCTGGTCAGTGGAAGAGAAAGCCATTTTGCAACAGTGG  
TTATAGGGGTGGGAGAGTAAAATTTCTGGTTTCTGGGGAAGCTAAGCCCATTGGTAGGACCAGACTTTTGTATG  
TGTGTTTCTTCCTTTAGTCATCTACTAAGGTTAATAAATACCTT

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**FIGURE 1419**

MCVSSFHLLRLIN

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**FIGURE 1420**

GTGTTTGTAGTTCTGTCCAGCTCACATTTTATCTTCATACCTTTGAGTAGCCTCCTTCCATGAATGGATCATCCAG  
TGGCCGCACTTAGGTTCTCCTATGAAGATTTTTGTTGTATTGTACCTCAGAACCATCTCCATATTCTCTANNNNN  
NNNNNNNNNNNNNNNNNNNATTGAATAGAAGTATTTACTAGATGAGGAGGAAAACCTAAAACAAAACATGAACAT  
AAAATATTTTTTAAAAGGAAGACATACAAACAGACACTATAACCAAATAAGATGACAGAATTAAGGCCTTATGCCA  
CAGCCAGAGTTGAAAAATGCAGAAAAAAGTTTAAAAACAAGGAATTAAAGCCAAACCTAACTTTTATCAAATA  
AATGTAAAAGTGATGAAAGAATCTGTTAAGATATCAGATTGTAATATAAAAGATACTAGAAACAAATGCCAATAG  
AACACTTAAGTACATTTTATATATTCATCCATTAGAATATATAGCTGTCAGAAATGATAGAGAATTACATATGTG  
TGCAAAAGTTTTTGTATCCATGTGGAAAACACAGGAAGCTAATAGTACTGTTTTTCTCTGGAGTGGGTGTAAGGG  
TAGAGACTTAACCTTTTACATCCTTATGGCAGCCTTCGAATACCTTTTAACTCCCAGTTCCCTTAACTGGGGGTG  
TGTATCCTAGAATCCTCGACCCATTAGAAAGTATATTGTAGACATCATACTCTTTACCCTTTAACTACACATG  
CACTTCATAAGAACAAGCATGCTGTCTTACCCAAGTACAGCTATCAAGTTCAGAAATTTAACATTGCCATAATAC  
TTTACAGTCCATATTTCAATTTCAATTTGCTGTTTTATTGGTAATTTTTTTCAGCTCCACGATCCAGCCTAGGATC  
ATATGTTGTATTGCCATAACCCTCTAATCTGGAGCAGTTCCTCAGCTTTTCTTTGTTTTTTATAATAGTAATATA  
TTTGAAAAATACAGGACAGCTAAAGGATAGAGTATCCTTCTATTTGGGTTTTTCTGATGTTTCCTCATGGTTAGA  
TTGGGGTAGTGCAGTGAGGGTTGAAATGCTGTAAGTGATATGTATTGCAGGTATACATCCAGATGCACAGAATGT  
CCATTTGTCCCTTATTGGTGATGCTAATTTTGATCACTTGGGTAAGATGTCCAGTTTCTCCAGTGTATCGTTATT  
GTTTTTCTTTTGAATTAGTGGGTAATTTGTGAGGAGAACTTTGAGACCTTGTGACAATTCTGTTCTCATC  
AAATCTACCCCTCCTAGGTTTAGCATCCTTTGACGATTCTTGTCTGAATAAATTTTTACTAGGATGTTTCCAAA  
TTGTGATTGTTCTAACTCCATTATTATTTCTGTATTAATTAGTCATCATTTCTACTGTAAGGAAGAGGTTTCCCTT  
TATCATCAACTTCGAGTAAGTACTTTTTTCTGAGCCATTTGAATATTCCTTACTAGATGTGGTGCCTCTTTACCC  
CAATTACTTAAGTTTGTATTTCCAAAGAACAAGGGTGTTCCTGCATAGCCATAGCACAATTACCAAAATCAGA  
AAATTAA



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**FIGURE 1421**

MIEELHMAKVFVSMWKTQEANSTVFLWSGCKGRDLTLYILMAAFEYLLTPSSLNWGCVS

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**FIGURE 1422**

AGTCGCTGTTTGGGACGCTGGGTGTGCGGTGTTCTGTCTCCGCTCCCGTTTCGCTGTCACAGCCCGTTCCCTCCC  
GGAGCCCGGGACAGGCTGGGCGCGCGCCCGTGTGAGTGAGCGGGACTCAGGGCAGAAGTGTCCTCCTCACTGCGTT  
TTTTTTTCTTTTATCCAAAGAACGGGGCAGTTAGTACGCTTGCCCTCCTGTCGCCCCGTTGGGAGCGGGTTGG  
TGTGCGGAGTGGTTCGCCCTTTTTTCTTTAGAACTTGTGAGCCTTTTTTTTTTTTTTTTTTTTTCTTTCTTTTTTT  
AGGCTCAGTGCTGTCCGGGCTGGTTTGCCCGGTCCCTGACTAACGGCTTCTGCCCCCTTCTCTCGCCACCCCTGC  
CCAAGGTCGCCCCCTCTGCCCTTCGCCCCGTGCCCGGGAGGGTGGGAAGCTTGACCCCGCCCTGCCACTCGCGTC  
TCCGCAGCCGTAGCCGCGCCTGTCCCAATATGAATAGGGTCAACGACCCACTTATTTTTATAAGAGATATTAAGC  
CCGGACTGAAAACTTAAATGTCGTCTTTATTGTCTTGGAGATAGGACGCGTGACCAAACCAAAGACGGCCATG  
AAGTGAGATCGTGCAAAGTAGCAGATAAACGGGCAGCATCACTATTTCCGTGTGGGATGAGATCGGAGGTCTTA  
TACAGCCAGGGGATATTATTCGGTTGACCAGAGGGTATGCATCCATGTGGAAAGGATGTCTGACACTTTATACTG  
GAAGGGGTGGTGAACCTTCAAAAAATTGGGGATCTAGGTGCGGTGCAGGCAGCCGCAATGCGAGATTCCATACACT  
ACTACCCTGGTAATGATCTCCACCCTGACCTGGAGGAGCCATCCTCTCTAGGGGTGTAAAGATTTGTATGGTTTA  
TTCAGAAGTGCCAAATTTCACTGAACCCAACCCAGATTATCGAGGACAGCAGAACAAGGGGCACAGAGTGAACA  
GAAGAATAATTCATGAATAGTAATATGGGTACAGGTACATTTGGACCACTGGGAAATGGTGTTCACACTGGCCC  
TGAATCAAGGGAACACCAGTTTTACATGCTGGCAGAAGCAATGGCCGGGACTTATAAATCCACAACCTACAAGG  
AACAGCTAGTAATCAAACAGTGATGACCACAATAAGTAATGGCAGGGACCCTCGGAGAGCCTTTAAAGATGACC  
TATGCTAAATACTCATGTGTAGTTTTTATACTACATGCCCTACTTGAACACTTATTGCACTTTTATTTATTGTTA  
ACTGTGAAAAGTACGTCCTTTATTGGGTTTCTTTTATATTCTTGGTTTGTTAAGAAGAATGGTTTGTTTTTATA  
GCAAACTGTTAAGCTGCTCGAGTCTCCTGTTGAAGAATGGGAACACTGAAAAGTAGGGGCATTTATTTTTAGAG  
TAAAAAGATTATTGGATAGCCTTTAAAAAACCTGCACCCATTTCTATGGGTGAGTTACTTAAGACATCAGCTTTAT  
AGCCTCTATGAGTCTATCTTCTGTATAAGTTTTGTAATATTTAACATAAGGCTTAATGGGAGATGTTCTTTTGTC  
TTGTATTAGATATTGCCAACTAAAGCAATAACCATCAAAAAACACAAGAACTTGTCAATGCTAGCAGTAATTTT  
TGAGTGTGTTGTGGCTCTCGGAATGATTGACTTTCGTTTCACTGACTACTATTAAGATTTTCCAAGGACTGACTCATC  
CCAAATTTTTGTTGTATTACCAAAAAACAGATTTCCTTATCAGAATTTGGAATAGAATGTGATCTCTATTGCAAC  
AAGTAATTTTAAAGAAAGCTACATTTATTTTAGAGTAGTGCTCCTAACATGTATTATCAACTTTGTGGATTACA  
TTGGAGGAAAATTTAAACTGGGGCCTTGAATATTTATTTTTTGAACCTACCATGTTAAATACTGAAGTATAATT  
TGGGGGAGTTATAAAGTTATGATAAACATTCATCTGATTATTTTAAACAATAGTTGTGGTAGATAAACATACTGG  
AGGTGAGTAAATTTGAATTCATATAGTAACATGCAGTCTGAAGTCCTAGTTACTTAATAGGTACTCAGCCTGGAG  
TGAAATCCTGGGTACTGACTTTGAGAGGAGTGAGTGTGCATGTTGTCAAAGTTTCTGAACACAGTTTACATAGC  
CTTATTAGCAAAAGTTTTAAGAAATGGCTCTATCAAAGAAGCAATTGCAGCTTTATTAGAAATATAAAAGTGGAA  
ATTTATGTACATGTCATAAGTGGTACCCACTTCCCTTTTTTACTGTAGGGTGGATAACTCTTAGGATTTAACTCT  
TTGAATATTATCTCTTGAATAAAGCATGTGTTAATGTTAACAAACCTACGTAATTTTGGCCCTTTCAATGACTTA  
CAGTGGAGAGCCAGTACATCTTAACCTACTGTTGTAGTGATGGTATCAACCTCATGGTTACTTAGCTCTGCATTG  
TTGCTTTGTTTTTTTTTCCACTTCAAATCACAAAATAAGTAGATTTTGTCTGAAAACCTCATAGCATTTGAAT  
ACAAAAGTTGTGCCAGATTGTTTGCCCTAATTCAGTGTGTTTAAACAAATATTTAGTACACACTATGTATTAGG  
CACTGTGTGGAAAGTGTAAAGGGTAGACAAGATACCGAATAATCTCCACAAGTTTATTTGTGGTCTATAGTACT  
TTTGTAACTGGGGTTACAAAATTTATAGAAATTTTTTCTTTGTTTCATATGCATATTCATGATTATAATTTGGC  
TTTGTGTTGTGATTAATGTTTTCTTAAGATTTTACATTATAGAATACCTCAAAGAAGTTGTCTAAGGACTGGGA  
TAGAGAGTATGTTTCATAAAATTGTAGATGTTTAGAATTTTTAAAAACCCTACAAATTAGTATATGATTGTTTAA  
TATAAGTAAGATAGGAGCAACACTTTAAATTATTTGTGGGAGAATACAGCATTAAAGGTGATTTTAAAGAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1423**

MNRVNDPLIFIRDIKPKGLKNLNVVFIVLEIGRVTKTKDGHEVRSCKVADKTGSITISVWDEIGGLIQPGDIIRLT  
RGYASMWKGLTLYTGRGGELQKIGDLGAVQAAAMRDSIHYYPGNDLHPDLEEPSSLGV

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**FIGURE 1424**

GGTAGCGACTGGGGCTCCGTATTCTGTTCACTGGAGTGGGTTTTATATATACCCAATAAATAGAAGTGTGACTGG  
CCTGTCCAATCTCGAAGTCAGAAAAGGGCCATGGGTAGCATCACATCCTTAGAGACTGGATGCAGTCACCAGACT  
TTGAGGAAAGAGGGAAATTCATCCCAACCTGTCATGCTAGCTAAGAGAGCAAAAAGTCAAGAATATGAACAATGT  
GACCTAGGCTCTGAAAGCTGACCAAGACACCATCTAAATAAACCTGGACTGACAATGAAAGGACTTTCGTTCTCC  
CTTAAAATAATGTTCAAAATAGCAAGGAAATAGAGCTTCAGATGTGTCTTGTGTACCTGGTCTTTCATGTGACA  
GTCAAAGATCCACAATGTGAAAGTGGGATTAACCCATCTGTGAAGTTCTAGTCTGTGCAGTCACAATTGACCACT  
GCAGGTTTTAACAAGAGGACCCTGTGGGGACACAACAGACTTCAATTCTTTAGCCAGCTTTTCCTTGGCTCAGAA  
TATGGAGAGAGCTGGAGGCCCTCCAAACCAGAGGATGTTTCGCTGGTCTTCCCAGGAGAGAAATGAACTATCTTTT  
GTAAAAGTAAGTTTCAAA

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**FIGURE 1425**

VATGAPYSVHWSGFYIYPINRSVTGLSNLEVRKGPWVASHP

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**FIGURE 1426**

GACTCTTACCTACTTCGGGGCCCACTTTGCTGTCATCCGCCGAGCGTCCCTGGAGAAGAACCCGTACCAGGCTGT  
GCACCAATGGGCCTTCTCTGCGGGGTTGAGCCTGGTGGGCCTCCTGACTCTGGGAGCCGTGCTGAGCGCTGCAGC  
CACCGTGAGGGAGGCCAGGGCCTCATGGCAGGGGGCTTCTGTGCTTCTCCCTGGCGTTCTGTGCACAGGTGCA  
GGTGGTGTCTGAGACTCCACAGCCCCACCCAGGTGGAGGACGCCATGCTGGACACCTACGACCTGGTATATGA  
GCAGGCGATGAAAGGTACGTCCACGTCCGGCGGCAGGAGCTGGCGGCCATCCAGGACGTGTTTCTGTGCTGTGG  
GAAGAAGTCTCCTTTCAGCCGTCTGGGGAGCACAGAGGCTGACCTGTGTCAGGGAGAGGAGGCGGCAGAGAGGA  
CTGCCTTCAGGGCATCCGGAGCTTCTGAGGACACACCAGCAGGTGCGCTCCAGCCTGACCAGCATCGGCCTGGC  
CCTCACGGTGTCCGCCTTGCTCTTCAGCTCCTTCTGTGGTTTGCCATCCGCTGTGGCTGCAGCTTGGACCGCAA  
GGGCAAATACACCCTGACCCACGCTCTCCAGGGCAGAAGTCGCGGTGGGCTCAGTGGGTGCCCTGAGCGGGGTC  
TCTCAGACTGACGTCAGGCCTTGGTGGGCTGCACTCTCACCTGGAGGCTCCGGGGAAGCATCTGCCTCCAGGACC  
ATTACGGCTGTTGACAAGTCAACTCCTCATGGCTGTAGGACTGAGGTTCCCAAGTCCTTGTCCTTGGTCCTGTGG  
TCCCTCCACCTTCAAACCAGCAATGGTGCATTGAGCAAATTGTGGTCAAATATACATCACATCAAATTTACCATC  
TT

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**FIGURE 1427**

AGCAGTGGCCCAAAGAGGAGCAGCAGACAAGAGTGCAGTGGTGGCTGCCGCCGCACCAGCCTCAGTGGCAGATGA  
CACACCACCCCCCGAGCGTCGGAACAAGAGCGGTATCATCAGTGAGCCCCTCAACAAGAGCCTGCGCCGCTCCCG  
CCCGCTCTCCCACTACTCTTCTTTTGGCAGCAGTGGTGGTAGTGGCGGTGGCAGCATGATGGGCGGAGAGTCTGC  
TTGACAAGGCCACTGCGGCTGCAGCCTGGCCTTCCCTGTTGGCCAATGGGATGACCTGGCGGCGGCC**ATGG**CGGT  
GGACAAAAGCAACCCTACCTCAAAGCACAAAAGTGGTGCTGTGGCCAGCCTGCTGAGCAAGGCAGAGCGGGCCAC  
GGAGCTGGCAGCCGAGGGACAGCTGACGCTGCAGCAGTTTGCAGCAGTCCACAGAGATGCTGAAGCGCGTGGTGCA  
GGAGCATCTCCCGCTGATGAGCGAGGCGGGTGCTGGCCTGCCTGACATGGAGGCTGTGGCAGGTGCCGAAGCCCT  
CAATGGCCAGTCCGACTTCCCCTACCTGGGCGCTTCCCCATCAACCCAGGCCTCTTCATTATGACCCCGGCAGG  
TGTGTTCCCTGGCCGAGAGCGCGCTGCACATGGCGGGCCTGGCTGAGTACCCCATGCAGGGAGAGCTGCCTCTGCC  
ATCAGCTCCGGCAAGAAGAAGCGGAAACGCTGCGGCATTGTGCGCGCCCTGCCGGCGGCGCATCAACTGCGAGCA  
GTGCAGCAGTTGTAGGAATCGAAAGACTGGCCATCAGATTTGCAAATTCAGAAAATGTGAGGAACTCAAAAAGAA  
GCCTTCCGCTGCTCTGGAGAAGGTGATGCTTCCGACGGGAGCCGCCTTCCGGTGGTTTCAG**TGA**CGGCGGCGGAA  
CCCAAAGCTGCCCTCTCCGTGCAATGTCACTGCTCGTGTGGTCTCCAGCAAGGGATTGGGGCGAAGACAAACGGA  
TGCACCCGTCTTTAGAACCAAAAATATTCTCTCACAGATTTTATTCTGTTTTTATATATATATTTTTTGTGTGTC  
GTTTTAACATCTCCACGTCCCTAGCATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1428**

MAVDKSNPTSKHKSGAVASLLSKAERATELAAEGQLTQQFAQSTEMLKRVVQEHLPLMSEAGAGLPDMEAVAGA  
EALNGQSDFPYLGAFPINPGLFIMTPAGVFLAESALHMAGLAEYPMQGELPLPSAPARRSGNAAALCAPCRRRIN  
CEQCSSCRNRKTGHQICKFRKCEELKKKPSAALEKVMLPTGAAFRWFQ



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**FIGURE 1429**

GAGGCTACTAAGGTATTTGGCTATTATAAATAAAATAGTGATGAACACGTGTACAGGTGTTTGTACGGACATAAG  
TTGTCATTTCTCTTGAGTAAATACCTAAAAGTGGGCTTGCTGGAGTTTTACTACCCTTGGATGCTGCTGTTGACA  
TGGAAAAGATTGAGGAACAATTTGCTAATCTGCACATTGTTAAATGTTTCCTTAGGAACCAAAGAGCCCACTTACC  
TTCTTGGTATAGACACATCAAAGACTGTCCAAGCAGGAAAGGAAAACCTTGGTTGCTGTTTTATGTTCTAATGGAT  
CAATCAGAATATATGATAAAGAAAGGTTAAATGTACTACGAGAATTTAGTGATATCCTGGACTTCTTAATGGAG  
TCAGATTTGCAAATTCCTGTGACAGTGTATATTTCAGCATGTACTGATGGCACTGTGAAATGCTGGGATGCTCGAG  
TAGCCAGAGAAAAACCTGTTTCAGCTCTTCAAGGGTTACCCCTCCAATATTTTTATCAGTTTTGATATTAATTGTA  
ATGATCATATTATTTGTGCTGGTACAGAAAAAGTTGATGATGATGCATTGTTGGTGTGTTGGGATGCAAGGATGA  
ATTCTCAGAATTTATCTACAACATAAGACTCACTTGGTGCATATTTCAGAGACACATAGTGATGATGCTCACTCAAG  
TACGTTTCCATCCCAGCAATCCCAACATGGTAGTCTCAGGTTTCATCTGATGGCCTGGTAAATGTATTTGATATTA  
ATATTGATAATGAGGAGGATGCACTGGTTACAACCTGTAACCTCAATTTTCATCAGTAAGCTGTATTGGTTGGTCTG  
GGAAAGGTTATAAACAGATTTACTGCATGACACATGATGAAGGATTTTATTGGTGGGATCTTAATCATCTGGACA  
CTGATGAACCAGTTACACGTTTGAACATCCAGGATGTCAGAGAAGTAGTTAACATGAAAGAAGATGCTTTGGACT  
ATTTGATTGGTGGCCTATATCATGAAAAGACAGACACATTGCATGTTATTGGAGGAACAAACAAAGGAAGGATTC  
ATTTGATGAAGTGCAGCATGTCAGGACTGACCCATGTGACTAGCCTTCAGGGAGGGCATGCTGCTACAGTCCGTT  
CTTTCTGTTGGAATGTGCAAGATGATTCTTTGTTGACTGGAGGAGAAGATGCACAGTTGTTACTTTGGAAACCTG  
GAGCTATAGAGAAGACCTTTACAAAGAAAGAGAGTATGAAAATAGCATCCTCTGTGCACCAACGAGTACGAGTTC  
ATAGTAATGATTCTTATAAAAGAAGGAAAAAGCAGTGATAAATGCATTTGGCACTTTGTTTGGTAGGTTTTATAGT  
TTCAAATAGTCCTTCTTGTTTACTACCCATGGTAGACATGTTTAAAGCTTTATGTAAAAACAAGCCAGTTAGCAA  
ACAGTCCTGGAAAAATATGGTGAGAATGGTTTAATTCCGGTCTTCACATATTCTAAAAAATTTTAAAGCCTCTAA  
GTATAAAATCAGTGAGTTGAAAGTAAAATTTCTTATTTAAAGAACCCATCTGTTAATGTAGTAAATGTTGGCTTT  
AAAGAAATAGCTCCGATAAGGACTTTTTTAGAAGGAAATACTTGGTAAACTTAATAAAACAGGTGGTTGGCTGCA  
TTTTTTAAGCCCAGTTTTTTTACATTTTAAATTGCTTTTATTGTGTATAAAACCAGATTAGACTATATTCTTCATC  
TGAGGAGCATCTATATGTTTAATACACCTAATGTATTATGCTGGAGTATTTAAATGTAAGTATTTTAAATGAGTAA  
ATAGAATTAACCTTTTTTTACAATGAAATGATAGGCATCTATGTAAAGTGAGAAAAATATGTTTCGTAAATATTT  
GCATCTTTAATATTGTTAGTAAGTAGTAAACAGGTGTTTTGCTGATTGAAAGGAAGTTATCTTGGTAAATTGAGA  
CTCAAAGTGAAATACAAAAATGAAAATATTTATAATAGGACTCGACTTGGAGAAAATGCTATTCTTCCTGTTGTC  
CAAACATAAATCTGAGGATAACCTGGGCTTTTTCTCTTTCTCTCTCCTAACCAGTTTTTCCCAAGTCCTGTG  
CCATTTACCTCCTAACGTCGTCTGCTAGCTATCCTTTTGCTTTTACCTCACCCTATTACCCTAGAGAAGACTTTTCA  
TTATTTCTCATCTGGATTACCAGCTCGATCTCTAATCTGCTTCAGTTTCATCCTTCTTGCTACTTCTAGGCTAAAC  
ATCAAAAACAGATCTGGTAGGGGCGGGGAAATGAGGGGGAAGAAACAAAAACGTGATGGTGCCTCATGCTGCTTA  
AAATCTTCAGTACATTGATGTTTTGATGGCGGACTACATAAGCGTTAAAAAATTGTGTTTTTTCAGAACTTTTAAAA  
TATAAGACAGTGCTATCTAGTGAATAAAAAAATTAGTTTTGAAAGATATCTGGAGAAATCGCATTTCATAAAACAAT  
TGGAAGTGAAACTATTTAAACAATAGGGCTTTTTTAAATTTAAAAATATTTAAAAATTCAAAAGTAATTAATAGTG  
TGGAAGATGTAGGTGAGAAAAATATCCTGAAAGTAGAACTGAAAGAGACAAAGAGAAAAGATGAAAGCCACAGAA  
GATAAATACAGGGGTCAAAACCAGACTAACAGTTTTAGAAAGTGAAAAAAGTTAAAAAGAAATGGGGGCAGTGG  
GTTATTAGAAATAACATAAATGGCTGGTATGGTTTGTCTGTGTCTCCTCACCCAAATTCATCTCGAATTGTAATCC  
CCATAATCCCCATGTGTCTAGGGAGAGACCTGGTGGGAGGTGATTGGATCATGGGGGTGGTTTTCCCTACGATGT  
TCTCCTGATAGTGGGTGAGTTCTCACAAGATCTGATGGTTTTATAAAGGGCTCTGCCCCTTTAACTCCTCACTCT  
TTCTCCTGAAGCCTTGTAAGAAGGTGCTTTGCTTCCCTTTGCGTTCCCCCATGATTGTAAGTTTCTTGAGGCC  
TCCCTGGCCATGCTGAACTCTTCAGTCAATTAACACTTTTCTTTATAAATTAATAAAAAAAAAAAAAA

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**FIGURE 1430**

MEKIEEQFANLHIVKCSLGTKEPTYLLGIDTSKTVQAGKENLVAVLCSNGSIRIYDKERLNVLREFSGYPGLLNG  
VRFANSCDSVYSACTDGTVKCWDARVAREKPVQLFKGYPSNIFISFDINCNDHIIICAGTEKVDDDALLVFWARM  
NSQNLSTTKDSL GAYSETHSDDVTQVRFHPSPNPNMVVSGSSDGLVNVFDINIDNEEDALVTTCNSSVSCIGWS  
GKGYKQIYCMTHDEGFYWDLNHLDTDEPVTRLNIQDVREVVNMKEDALDYLIGGLYHEKDTLHVIGGTNKGRI  
HLMNCSMSGLTHVTSLQGGHAATVRSFCWNVQDDSLLTGGEDAQLLLWKPGAIEKTFTKKESMKIASSVHQVRV  
HSNDSYKRRKKQ

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**FIGURE 1431**

GAAAAATGAAACGTCTTTGTGGTCCGGGGCTGAGACCCACGAGGAGACTGGGCGGGATTCTGGCGTTAGGAGGC  
GGGGCCTTTTCGGCTTTGGGCGCGAGTGGTTAAAAGACAGTTGGTGTGCGTTTCGGCTTCTCGGGTCGGATTCCGCG  
GTCCCAACCCCTTCCCATGGCCGACCCTGAGGAGTTGCAGGTTTCTTCGCCGCCCCCGCCGCTCCCTCTTCTCC  
CTCCTCTTCAGACGCCTCTGCAGCATCTTCCCCGGGCGGCCAGTGAGTTTGGGCTGGCCAGTTCCGAGCAGGAG  
CAGCGGCCCCAACGGTGGACCAGCTGGAGGAAGTGGAGCTGCAGATCGGAGACGCAGCCTTTTCATTAACCAAAC  
TCTTGAAGCCACATCTGCAGTATCAGCTCAAGTGAAGAAGTTCGCTTCAAATGTACAGAAAATGCAGTTTCCT  
TAAAACGTGGCGGGACCTCTTGAAAGAAGGCTATGATTCTTTGAAACCTGATGACTGATTGTGGCATACTTCGTTG  
TTTAATAATGACTGCAATAATTCATACTTCTTATGTCATATTTGTACATGTACCACACATATAGGATGACCTCT  
GTCCAGCAGTTCTGTATATACTCAGAATGAAATTTTCTTGGTTTTCTTGGTTTTGTGAAAGCAGAATACCGAT  
GCTATTTTTGTGCGGACCAGTACTTGTGTTGTCCTTAAATACTTTATGCCTCTGAACTTTCATAGAATCCTTTAT  
GAAAGTTAACTTCATCAATAGACGGTTAATATTAATAGAGCCACAGTGCTACCAGTAGCAAACCTAGGTAGACCAT  
TATTTGTTTTGCAACAAGATGCTAAGCATGGCAGACTTTGAAGTTGCGTTTCATCTTAAGGACCAAGGGAGGTAA  
CTTTAAGGTTGCCAGTGGTGGATCCAGCTCCGTTAGGCTAAGTTGTCTACAGCTAATGATTGTGTCTTTATTCTA  
TATCCCCAGCACCTAAAACAGGGTCACACAACATTCATAAATGTTTGTGTAATAAAAGAGTTAACAACATAAT  
TGAAAGCTTTTTTCTTCCATATTTAGCATGAAGACTGTCATTGTTTCTCTAGGAAATGTATGAATCTGAACCT  
TTTTGACTTGAAGAAAAACATTCTTTTTTACAGAGATTTGGACTTTGATGATAGGTTTTAAAAATATATGATAA  
ATATTTTTTGTACTTGTGTTGATTTTTTTTTTAAAGACTTTACTTCAGAAAGGGAAAGACTGTTTAGAAAGAATGC  
ATATTTTTTCCCTATTTATTTCTGTGGTTACTGCTTTTGCAGTTTAAACAGTGTGTTGATTTGATATTTGTATATG  
TTTGATTGCTATCTTAAAGTGCCTTATCAGATTTATGGCTCTGTGCTATTACTTTTTGAGCTTTGCAAGTTGTG  
TACATAATAATTCTAAAGAAGTTACTTTGTTTGCAATGCATCAAATTTAAATGATGTGATTTTTTTTTGTATTATT  
TGATCTTAGTGACAGTGTCTATTTTGCACTCTGTATCTTATGTTGCTTTTGGTGTGTTTGTGTTGTGTGCAACG  
ATTAAGCCAATAATTCTCTACCATATATAACTTCTGGACATTTTTGATACAACATCTTAATTCTTTGTAGATAT  
GGAGATAGGTACAGAACTATATTCTAATGCCCCACAATGGGGCTATGAGAGGGGACAGATGGATGGGCAAAGAAT  
AGTTTTGTTTAAACATATTAGGTCATAGTTCTTGATTAGTTTTTTTTTAGTTAAAGATAAACACATAGGGTGTGATTT  
CTATACCAAAGATATGCTTATTTTCAGTATTAGAAAAATATTCTTCTTACATCTCCTGAAAATTGCAATTTTTTAA  
ATGTGTAAAAATAAATTATTATTAAAGCACATTTTATTTCCATTTGTTTGGATTCACTTAAACTTTTATT  
GACATATTTCAAAGATATAGGAAAGGTAAATGATTTCAAGAAAATCCGTGTATTTCTACCATGCAGATGTAATAA  
ATGTTAGCATTTGGCTATATTTTCTTCAGACACACATATGCATGTAATTGCAAATGTTAGATACATTTGAAGTTT  
GCTTTGTTACCTGTTTGATCCTGTCCCGTTTCTCCCTCCCCAGAGTCCCCAGAGGTAACCACTAGAGGGGGCATA  
ATATAGCATGTGTTTTATATTTTTAATACAAATATATTTTTTAAAGCGCTACAAAATATTGTTTTATATATGT  
GGTAGCCAGCTTCCAGATGGCCCCAGTGATCCCTGGCCTCCTGGTGTTCATGCCCCAGTATAGCCTTCTCCTGCA  
TTTTACAGTGCTGACTTTTGTAACTACCAGGATATTGAGCAAATGCAGTGTGTGATTCTGAGGCCATANNNNNN  
NN  
NN  
TTTTTGCTCATTTTCTATGTTGTTTTTTTACTTGTCAGTTTTTAGATATTACATATTTGAATACTAATGATC  
TGTTATGTATGTTCCAATTATCTTTTTTAGTCTGGTTTGTCTTCATATTTGGTTATGAAATCTGAATTTTTAA  
AAACGTAATTTTACCAATCTTTCATAATGATTTGCTTTTTCTGGTTTTTGTATAGGAAATGTCATAAAAAATAGTC  
CTATTACAGCTTCCAAAAGTTACAAAATTTTTGGTTTTAACATTTAGATGTTTAGTCCAACCTGAAATTGTTTTCT  
TTTATGGCATGATTTTGGAACTTGTTTTAATTATTTTACATATTTATAGCTGTTCCCTCCAAGTATCAATTTTT  
CAAGTGCAACATCTGTGATGCAGTTACTATGTAAGGGCCAGATTCTGACCTTCTGTTCTTTTTATCTGAAGGAA  
ATTTGAACATGCCACCCCCAAATATGCCGATTTGGCATACTGATTATTTTCGAGCTAAAGGTGCTTGACTAACAGT  
AGTTGCAGAAATGGCTATTTTAACTGTCCTTTCCTACCTGTAGCAAGCCATACAAACTTCTTTGATAAAGATGCT  
TTCCTGATACCAAGATGAGAAGATGGCTCTAATCAGCTGAGACAGCACCAGAGGAATCTACAAACAAGAACTAT  
TAGTTTCTTAACATATATTTACCTTCCACAGTTTCTGCCTCTGGAAGCCTAAAACCTGCTTTCCTTCGTCTTGTC  
CACTTCTCTGAAATGTATTCTTTGTGGAAGATGCTATATAGTCCAGAGTTGTAAGCCACTACTTGTGTTTACCTT  
TTCATTGAGTTTTCTCCTGTGTGATGTACGTTGCATATATTAATAAAATTACTTGTTTTTCTCTT

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**FIGURE 1432**

KMKRLCGPGLRPTRRLGGISGVRRRGLSALGASG

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**FIGURE 1433**

GTAAAGCATTGCTTGAGGTTGCCCAGGTAGTTTCGCCTTACACTTCTTGTCCTCCAGTGCAATTATTAGTAGAGCTC  
CCTTTCACGTGTCAAATTTCCGGTTGGGGATAAATTGCATTGTCGTTTTGGTTTGAGATAGGAAGATGAGGGGAGG  
AAGGAGGTGAGGCGGTAAAGGGCGTTCTCTCTCTTGGGTCCCGCGCCCAACTTCCGCTGGCCCAAAGAACTATA  
ATTTTGAACCAACAGACCTCTGCTGGCATCTGCGATTGCATTTTTCTGTGTTTAAACAACGGCTGTGCTAGACGAA  
GTGGTGAAGCCCAAAGACTTATTTTTGAGCTCGCTGTAAGACTGAGAAATCACGTAGTCCTTCCTGAAACCACTA  
AGAGGAAAAATGCTCTGTGACACTGCATACAGATGTAGGTGATATTTAAATGAAGTCTTCTGTGAGAGGACACCC  
AAAACATGTGAGATGGAGTCTCGCTGTGTCCCCAGGCTGGAGTACAATGGCGCGATCTAGGCTCACTGCAACCT  
CCGCCTCCTGGGTTCAAGCAAGTCTTCTGCCTCAGCCTCCCGAGAACTGGAAGAGGAGGCAACAGTATTTGGGGC  
AAGAAGTTTGAGGATGAATACAGTGAATATCTTAAGCACAAATGTTAGAGGTGTTGTATCTATGGCTAATAATGGC  
CCGAACACCAATGGATCTCAGTTCTTCATCACCTATGGCAAACAGCCACATTTGGACATGAAATACACCGTATTT  
GGAAAGGTAATAGATGGTCTGGAAACTCTAGATGAGTTGGAGAAGTTGCCAGTAAATGAGAAGACATACCGACCT  
CTTAATGATGTACACATTAAGGACATAACTATTTCATGCCAACCCATTTGCTCAGTAGCTATGATAGACCTGGACA  
AATAACTTGACAAATTGCTGGAACACACTTATTGTGGTTTACCCGGTTTAAATTATGAGCCAGCTTGACGTGGTT  
GTGGCCGTTGGGCGAGATGAAGCTACACTGTGAGGTGGAGGTGATCAGCCGGCAGCTTGCCCGCCTTGGGGCTTAG  
GAACCGGGGCAAGGGCGTCCGAGCCGTGTTGAGCCTCTGTCTAGCAGACTTCCAGGAGTCAGCCGCCGGTCCGAGC  
CTTCTGCTCATCTCCACCCTGAAGGACAAGCGCGGACCCGCTATGAGGATTCCATATGGCTCTCATATCATTC  
CATTCCATCTCTGCCAAGATTTGGATACCGCAAAAATTTGTGTTTGTGGAAGATTCTGTCTGAACTCTTTCATTC  
AAGGAACTACTACCATGAATCTGCATTCTGTTGCCACACTGTGGTCTTAGTAGATAATTTGGGTGGTACTGAAG  
CACCTATTATCTCTTATTTCTGTTCTCTAGGCTGTTATGTTAATTCCTCTGATATGTTAAAGTAATGGGTGAGAC  
CAGAAAAAGAAATTTCAATAACAGATCAGTTGGGGTGCATGTATGATTTTGAGCGTCAAATTTGGAGTAAGGA  
AGATTTCTGTATACTTGCTGGAGAGGAGGAATGTGTATAGTTACTCATTTAGATGACTCCAAAACCTTTATTAAA  
ACCAATTTTAGTTTT

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**FIGURE 1434**

MSVTLHTDVGDIKIEVFCERTPKTCMESRCVPQAGVQWRDLGSLQPPPPGFKQVFCLSLPRTGRGGNSIWGKKF  
EDEYSEYLKHNVRGVVSMANNGPNTNGSQFFITYGKQPHLDMKYTVFGKVIDGLETLDLEKLPVNEKTYRPLND  
VHIKDITIHANPFAQ

**FIGURE 1435A**

CTTGGCTCTCTGTGCCTCAGTTTCTCATCTGTGAAGGTGGGGATAGATGATGGCAATACCTGCTTCAGAGAGTGA  
AATTAGATGAGATGATGTCTGTAAAATTACGTAAAGACGGTACCCAAAAGTAGTACTATTTTTCCCTTTTCTTATT  
AGAGCAGGTTGGGCACGTTTTGATGTCCGTGGGAATGAGCAGGTAGAGAGGGTGGTATTGAGGCTGGAGGGGAGA  
GAAGGGACCCACAGATGGGGAGAGAAGTCTTGGGTGCCTGTTTTATCCCAAACCAGGGGAAGGAGGGAACAGGTA  
GGGCTGGCTGCAGGAAAGCTTGCAGGTATGGGGTACACAGTTAAAAGGGAGTGTCTTCTGATAGTCTTGATGCAG  
GCCTGGAGGTGCTTTGTTATGGGGGTGGAGGTCTGTATGTACATTGTGGCGGTAAGATGCCGTGCTGTCTTTGCC  
ACCAGCCTGTGGCAGCCCTGGTGTACACCAGGGCAGGTGGGCAGTTTAAATGTATCTCAGGCCAGATGACCTGCC  
CTGCCCACCTGTTGAGGCTCCAGTAGATAGACGTGAAAGCACAGTATAAGCATAATGCACCACCTTAAATCCTTTT  
CTCTGAGGAGCTGGAAGGCCTGTAGTCACCATCTGAGCCAAATGTCATTCAAGTACTTCACTTGGGTACACACC  
ACACTTTGACCCACTATCTCATTTAGTCATCACAAATGGGTGAANNNNNNNNNNNNNNNNNNNNNNNNNNNNNN  
NN  
NN  
CAGGATGGAAAGATGTGTAGGGATTGTCTTCTCCATTGATAGATGAGACAAGAGCTGGGTACTCTGATCTCCAT  
CCCAAGCACACAGAGCTTGGGGCCCCACAGGCCTGGTGTGAATCCCACTCCACTACCAGAGGCTGTGTGCCTTTG  
GACCAGGCATCTTGCTTCTCTGACCCTATATACAGCTGCAGAAAGATTCCTTGCAGGTTGCTGTAAGGATTTGGA  
GGGAAACTGTTGCCCAGCACACAGTACACATTCTGGGAGCCATCGTTTCCCCAGTGCACTTTTCTGCAAATGTG  
GATCTACATCCCACTTGATGCTGAGACCAGCTGCTGTGATCTTGCAATTTGTTTAGCGCTTTGTTCTCCTTGAGG  
CAGTAAAGTGGTGGCACCTGACCGGAGCATGTAGCCACCTATGACTTCCTGAGTGGGGTGGTGTGGGGAGGGCCC  
TGÀGGAGTCTGTGGTCTTAGGCCTTGGAATTCATCAGGGCTTTCTGCTCCTTCTGGTTGCCTCAGTCCCAGGCA  
AGATAGGGTCCCAGAATCTTACAGCCCAGAGGCCACCTGTTGCAACTTCTTTTTTACAGATGGAGTCATCAGAAC  
CCACTGTGAGGAAGTGACTTCTCCTTGAGGTCACCCAGACACTCCAAACAGAGCAGAGCAAAAGCGCCTAGA  
TGAATTTTGGACCTGTCTCCAACACCCTGGGGATTTCACCAGGAAGCCTTCAGTCACCATCCAGGGGATTTTT  
ATCGCCACAAAGGGTAATTCTTGCTCCATCCCTGCTGTGACTCAGCTGTGACGTTGAACCACACAAGCCAGAGAG  
AAGAAGATAAAGTCATCAGAGCTCCTACTCACCAGAGAGTGAGGCCCAGGCCAGGACTCCACAAGGCTGGTCCCC  
TGCCCTGGAGCAACTTAAACAGGCCCTCTGGCCAGCCTGGAACCTGAGATGGCCTCCAGCTCAGGCAGAGTCC  
TCGCCCCGGCCCCTGATGAGAATGAGTTTCCCTTTGGGTGCCCTCCCACCGTCTGCCAGGACCCAAAGGAGCC  
GGCTCTCTGCTGTGTCAGGCTGTCTCTCTGAGAACCCGAGGAATGGCGAGGATCAGATCTGCCCCAAATGCAGAGG  
GGAAGACCTCCAGTCTATAAGCCCAGGAAGCCGTCTTCGAACCTCAGGAGAAGGCTCACCCGAGGTGGCTGAGGC  
TGGAATTGGGTGCCCTTTGCAGGTGTGCGCTGCTCCTTCAAGGGAAGCCACAGTCTGTGCAAGAGCATGAGGT  
CACCTCCCAGACCTCCCACCTAAACCTGCTGTTGGGGTTCATGAAACAGTGGAAGGCCCGGCTGGGCTGTGGCCT  
GGAGTCTGGGCCCATGGCCCTGGAGCAGAACCTGTCAGACCTGCAGCTGCAGGCAGCCGTGGAAGTGGCGGGGGA  
CCTGGAGGTGATTGCTACCGGGCACCTGCTCCGAGAGCCAGGAGGAGCTGGCCCTGCAGCACTTCATGAAGGA  
GAAGCTTCTGGCTGAGCTGGAGGGGAAGCTGCGTGTGTTTGAGAACATTGTTGCTGTCTCAACAAGGAGGTGGA  
GGCCTCCCACCTGGCCCTGGCCACCTCTATCCACCAGAGCCAGCTGGACCGTGAGCGCATCCTGAGCTTGAGCA  
GAGGGTGGTGGAGCTTACGAGACCCCTGGCCAGAAAGACCAGGCCCTGGGCAAGCTGGAGCAGAGCTTGCCT  
CATGGAGGAGGCTCCTTCGATGGCACTTTCTGTGGAAGATCACCATGTACCAGGCGGTGCCATGAGTCGGC  
CTGTGGCAGGACCGTCAGCCTCTTCTCCCCAGCCTTCTACACTGCCAAGTATGGCTACAAGTTGTGCCTGCGCT  
GTACCTGAATGGAGATGGCACTGGAAAGAGAACCCATCTGTGCTCTTTCATCGTGATCATGAGAGGGGAGTATGA  
TGCGCTGCTGCCGTGGCCTTTCCGGAACAAGGTACCTTCATGCTGCTGGAACAGAACACCGTGAGCACGCCAT  
TGACGCTTCCGGCTGACCTAAGCTCAGCGTCTTCCAGAGGGCCCCAGAGTGAAACCAACGTGGCCAGTGGATG  
CCCCTCTTCTTCCCCCTCAGCAAACCTGCAGTCACCCAAAGCACGCCTACGTGAAGGACGACACAATGTTCTCAA  
GTGCATTGTGGAGACCAGCACTTAGGGTGGGCGGGGCTCCTGAGGGAGCTCCAACCTCAGAAGGGAGCTAGCCAGA  
GGACTGTGATGCCCTGCCCTTGCCACCCAAGACCTCAGGGCACAAAGATGGGTGAAGGCTGGCATGATCCAAGCA  
AGACTGAGGGGTGCACTTCGGGCTGGCCATCTGGTTAGGATGGCAGGACGTGGGCTGGGCCACAAAGGCAAAGG  
GTCCAGAAGGAGACAGGCAGAGCTGCTCCCCCTGTCACGGACCATGCGACACTGGGAGGCCAGTGAGCCACTCCG  
GCCCCGAATGTTGAGGTGGACTCTCACCAAATGAGAAAGAAATGGAACCAGGCTTGGAACCGTAGGACCCAAGCA  
GAGAAGCTCTCGGGCTAGGAAGATCTCTGCAGGGCCGCCAGGGAGACCTGGACACAGGCCTGCTCTCTTTTCTC  
CAGGGTCAGAAACAGGACCGGGTGAAGGGATGGGGTGCCAGTTTGAATGCAGTCTGTCCAGGCTCGTCATTGGA

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**FIGURE 1435B**

GGTGAACAAGCAAACCCAGACGGCTCCACTAGGACTTCAAATTGGGGGTTGGATTTGAAGACTTTTAAGTTTCCT  
TCCAGCCCAGAAAGTCTCTCATTCTAGGCCTCCTGGCCCAGGTGAGTCCTAGAGCTACAGGGGTTCTGGAAACAT  
TCAGGAGCTTCCTGTCTCCAGCTCCTCACTCACCTTCAGTAACCCCCACTGGACTGACCTGGTCCACAGGGCA  
CCTGCCACCTGGGCCCTGGCAGCTCAGCTTCCCCAACACGCAGGAGCACACCCAGCCCCACATCCTGTGCCTCC  
ATCAGCTAAACACCACGTCACCTTCATGCAGGTGAAACCCAGTCACTGTGAGCTCCCAGGTGCAGCCAGAGGCACC  
TCAAGAAGAAGAGGGGGCATAAACTTTCTCTTCTCCTGCCTAGAGGCCCCACCTTTGGTGTCTTCCAGAATCCCGTA  
ACACCTGATTAACTGAGGCATCCACTTCTTTTCAGCAGACTGATCAGGACCTCCAAGCCACTGAGCAATGTATAAC  
CCCCAAAGAAATAATTTTTAGAACTCTCTTTTCGAAGTTTTCTTAAAGTGATGGTTTGGGAGTTGTTTGTACTGAGC  
CAGGTTTGAAGGAGCCATTGCTGAGTTTGGGTGGTGCCACCAGTTTTGTCAGGTGGCATCAGAGGCTGGCATGCT  
GGCAGGAACATCCCCTCTTAGCCCCAGTCTTCTCTTTCTATAATGAGACCCACCCAGCTTGCCTCCCTCCCTG  
GCTTCTCTGACCCTCAAAGGAGATGCCACGCAGGACAGACTGGAGAGAGAAGCCTGGGCAATACTGCCCCGCTGT  
CATGGCCTGGTGGTGGCCACACCTATCTTCTCACCTTGAGAGCCACACCCAACCTTTCCAAAGACCCTGAGACAA  
GTCAGGACCTACTACTCTCCCTGCTGCTTTCTGACAGCTTACTCTTCTCCACCTGCTGAGCCTGTGCCAGA  
CTCCATTGCTCAAATCGTTAGGGTTGCTTCTATAAAAATGGGTGAGTAGCCCTTCTGTTCTCTCCAGCCCAGCA  
TACAGGAGGATCAAAGGAGGTGACGGAGCATCGTGGCACGGCAGTCTCAATGGGTGAGAAACCCAGGCCAGCTGG  
GCTCTAAGCCTGGCATCCTGTCTATGCTTAGTCCTTCAGCTGAAGATCAGAGGAAGCCTCTCCCTTGCCCTCTCCA  
GCTCTAGGGGTTTTTCAGGAGGCCCAACTGCAATAATGGAGCACTAGTGCTTTTATGTGCAATGGTGTGCTCCATG  
CACGACAGCAGCAAACATTCTGGGGCTGCTTTTTATTGTTCCACGGCTGACAGCGTGGCAGCGGAGACTGTGGA  
GGCAGTGGAGACTGACTTCTTCTGCTGACAGCTGGATGTCACACATGAAGGTCTGGCCTAGCGAGTGATGGGTC  
TAGGCCCTGAACTGATGTCCTAGCAATAACCTCTTGATCCCTACTCACCGAGTGTTGAGCCCAAGGGGGGATTT  
GTAGAACAAGCCCCCATGAGAAACAGCTGTTACTCTACACTTTTGATTGCCTATTTCTGATGGCAAGAGATACAT  
ACTCTCTTCAAAGAGCATGAGATGCAGCCATTCTTTCAGCAAAGCTTCATTGACACCTGCACCTGTTAACTGTGT  
TCGACATTGAAGGGAGAAAGGCAAGATGTGCACTCTGGACTCAAGAACTCTTAGTTGAGTGGAGGAAATGAGCA  
GATAAGTAGATCATTATGATTGAGAGTAGGAGAAGCTTAGAGAAAGCACAGAACCCAGATCCAGCTGGTGAAGG  
AGGGAAGGCTTCAGGCCTTTAAGCTCAGCCTGAGAATATTGTGAAATGCAGAGGATGGGGAAAGGGAAGAGTAC  
CGACTTGAAAACGGAGAGCTGTCTTGGCTGAGGGCAGGGTCTGTGTGGCAGGATGGGGGAGGGAGTCAGAAGGGT  
CAGATGAACTGGAGTGTAGACAGCATCAGATGCAGCAGTGCCACCGCCCCCCCCCAACCCCCGCCCTGCCCCA  
CAGAGCACCTGCTGGTAACCTGGGCCTATTGAAAGCAGGATGAGATGATAATTTAAGACACTGAATGATTTCTT  
TTCCAACAAAGCTCTATGTTAAGTGCATCAAAGATGTGACATTGCATCTTTTACAGGTGATTCAAGGGTGGGGGA  
GGCAAGATGCAGGCAAAGCCACCGTTTCACTGGGTGGATTGAGTAGGTCCCCACCCCAAGCAGTTCCCGAAGGT  
GCTGGGGAGATTTTTAAACACCAAGTGACAGAATCTCACCCCGTAAGTGATAAAGCCTGAGCATCAGGATGAAG  
TCTCCTGCAGGGGAAGGTTCTGATGCCCCAGTCAAGTCTGACTGGCCGTTGGGGGCGAAAGGTGTGACTGAAGCA  
CTGACAAGGTGGGTGGAGGCACTAACCTGTAAACACCTCCTCTGGCTTGAAAGTTTTGCTTCATCAACTACAGCT  
GGAACCTCCGGGGGCAAGGCAGAAGGGCCAGAACAGGGAGGTCTTCTACTGAGGGGCTGTCTCATGATGTCTGAG  
ACATTTGTGGAGCTTCTGGTATACACAGTGCAGACAGTTTCCCCTGAGAAGCTGATTGTCTAAAAGTGACACAAA  
CCCTCTTCTGCCACGTGCCCCCGAAAAGCCCATCAGAAACCTGAATGGCTTCCCGTTGCCAACTGAAGCATCCT  
CACCTGTACATTAGAACCCCTGCGGAGACTTCATCCTGATGCTCAGGCTTTATCACTTAACAGCCCCTGAAGT  
GCACTTAGAATACCAGGTGCTGCCGGCTCCTGGGTCTGGCCATAAGGTGCGCTCCTTACTTGGTTTTCTGACTC  
CTAATCCAAATGAGCCAAGGTCTGAGGGGCTGCACAGGCAGTAGGTGTGGAGCACAGCTCTGAGCCCAAGCCTG  
GGCCTCCAAGCTGCGCTGCTGCTGTAGGGCCTGATCTCCACCTATCCCTTCCCTGCAGGTACCTTCATGCTGC  
TGGACCAGAACAACCGTGAGCACGCCATTGACGCCTTCCGGCCTGACCTAAGCTCAGCGTCTTCCAGAGGCCCC  
AGAGTGAAACCAACGTGGCCAGTGGATGCCACTCTTCTTCCCCCTCAGCAAACCTGCAGTACCCCAAGCACGCCT  
ACGTGAAGGACGACACAATGTTCTCAAGTGCATTGTGGAGACCAGCACTTAGGGTGGGCGGGGCTCCTGAGGGA  
GCTCCAACCTCAGAAGGGAGCTAGCCAGAGGACTGTGATGCCCTGCCCTTGGCACCAAGACCTCAGGGCACAAG  
ATGGGTGAAGGCTGGCATGATCCAAGCAAGACTGAGGGGTGCACTTCGGGCTGGCCATCTGGTTAGGATGGCAGG  
ACGTGGGCTGGGCCCACAAAGGCAAAGGTCCAGAAGGAGACAGGCAGAGCTGCTCCCCTCTGCACGGACCATGC  
GACACTGGGAGGCCAGTGAGCCACTCCGGCCCCGAATGTTGAGGTGGACTCTACCAAATGAGAAGAAAATGGAA  
CCAGGCTTGGAACCGTAGGACCCAAGCAGAGAAGCTCTCGGGCTAGGAAGATCTCTGCAGGGCCGCCAGGGAGAC



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**FIGURE 1435C**

CTGGACACAGGCCTGCTCTCTTTTTCTCCAGGGTCAGAAACAGGACCGGGTGGAAGGGATGGGGTGCCAGTTTGA  
ATGCAGTCTGTCCAGGCTCGTCATTGGAGGTGAACAAGCAAACCCAGAGGGCTCCACTAGGACTTCAAATTGGGG  
GTTGGATTTGAAGACTTTTAAAGTTTCCCTCCAGCCCAGAAAGTCTCTCATTCTAGGCCTCCTGGCCCAGGTGAGT  
CCTAGAGCTAÇAGGGGTTCTGGAAACATTACAGGAGCTTCCGTGCTCCACAGTCCCTCACTCACCTTCAGTAACCC  
CCACTGGACTGACCTGGTCCACAGGGCACCTGCCACCCTGGGCCCTGGCAGCTCAGCTTCCCCAACACGCAGGAGC  
ACACCCAGCCCCCACATCCTGTGCCTCCATCAGCTAAACACCACGTCACTTCATGCAGGTGAAAACCCAGTCACTG  
TGAGCTCCCAGGTGCAGCCAGAGGCACCTCAAGAAGAAGAGGGGCATAAACTTTTCCCTTCTCCTGCTAGAGGCC  
CACCTTTGGTGCTTTCCAGAATCCCCTAACACCTGATTAAGTGAAGGCATCCACTTCTTTAGCAGACTGATCAGG  
ACCTCCAAGCCACTGAGCAATGTATAACCCCAAAGAAATAATTTTTAGAAATCTCTTTCGAAGTTTTCCTAAAAA

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**FIGURE 1436**

MASSSGSSPRPAPDENEFPFGCPPTVCQDPKEPRALCCAGCLSENPRNGEDQICPKCRGEDLQSI SPGSRLRTQE  
KAHPEVAEAGIGCPFAGVGCSFKGSPQSVQEHEVTSQTSHLNLLLGFMKQWKARLGCGLESGPMALEQNLSDLQL  
QAAVEVAGDLEVDCYRAPCSESQEELALQHFMKEKLLAELEGKLRVFENIVAVLNKEVEASHLALATSIHQSQLD  
RERILSLEQRVVELQQT LAQKDQALGKLEQSLRLMEEASFDGTF LWKITNVTRRCHESACGRTVSLFSPAFYTAK  
YGYKLCLRLYLNGDGTGKRTHLSLFIVIMRGEYDALLPWPFRNKVTFMLLDQNNREHAIDAFRDLSSASFQRPQ  
SETNVASGCPLFFPLSKLQSPKHAYVKDDTMFLKCIVETST

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**FIGURE 1437**

GGGGGCGCGGCCGGTTACTCGCTTACCGGAGGCTTCAGTCCCCGGCGCGGCGACAGCTAGGGTTCACGGCCA  
CTGGGGCAGAGGAGCCGCGAGAAGATGTGGGTTTTTGGTTACGGGTCCCTGATCTGGAAGGTGGATTTCCCTAT  
CAGGACAAGCTGGTCGGATACATCACCAACTACAGCAGGCGCTTCTGGCAGGGCAGCACGGACCACGCGGGGTC  
CCCGGCAAGCCTGGAAGAGTTGTGACTCTTGTGAAGATCCTGCGGGATGTGTATGGGGTGTGTGCTTACAGATTG  
CCAGTAGGAAAGGAAGAAGAAGTAAAAGCATACTTGAAGTTTACAGAGAAAAAGGAGGCTACAGAACCACAACAGTC  
ATTTTTTATCCAAAAGATCCCACAACAAAACCATTCAGTGTATTGCTATATATTGGAACATGTGATAATCCTGAT  
TATCTTGGTCCTGCACCTCTGGAAGACATTGCTGAACAAATTTTAAATGCAGCTGGTCCAAGTGAAGAAATACA  
GAATATCTTTTTGAACTTGCAAATTCATTAGGAACCTTGTGCCAGAAGAAGCAGATGAGCATCTTTTCGCTTG  
GAAAAATTAGTAAAGGAACGTTTAGAAGGGAAACAGAACCTCAATTGCATATTAATTTAGTCTTCAGAGAATTAAC  
TTCAGTGCACAATGACAATATGATTGGAAATACGTTTACTTAAAGATCTTATTTTTAATGTAGTGAGGATATTA  
TTTAAACTTTTTATTTTAACTGGAAATGTCCTGAAACACATATTTAAAAATATTGGGATACAGTGAAAGAAAAATTC  
AAATTTTAATAACATAAAGATTTCTTAACTTTATGTTATTGAACACTTACTACTAGAAGTGAGTTCTTTAGAAA  
AATACAGTGAAGGACTCAGTTCAGTCTTGTTTTATCAGAGTGATAATCATCCTGTTTCACATCCCAATACTATT  
TTGAAATTCTAAACAATTAAACCAAAATTCCAATAAATATAAGGTTATGCCTTCAATATATTCCTATACAATTCT  
GTAACCATGGTTTAAATAACACAAGCTTAAATAACATGCTTAGAAATACACAATAATATGAACAGTATTTTCAGC  
CTTAATTGTGAATTTCTTGTTATTCAAGTATTAAATGAAATCTTTTGAGTTTTTAGCCAAAAATTGGCATT  
AAAATACGAAAAATTCCTTGGAATTATAATGTACTGTACCTCTCTTTTTTAAATAAAGGCATTTTACTATATGG  
AAAACATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1438**

MWVFGYGSLIWKVDFPYQDKLVGYITNYSRRFWQGSTDHRGVPGKPGRVVTLVEDPAGCVWGVAYRLPVGKEEEV  
KAYLDFREKGGYRTTTFYFYPKDPTTKPFSVLLYIGTCNPDYLGPAPLEDIAEQIFNAAGPSGRNTEYLFELAN  
SIRNLVP EEAD EHLFALEKLVKERLE GKQNLNCI

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**FIGURE 1439**

GCTCAGTGGGGCGGCTACTGCTCATGTGATTGTGGAGTAGACAGTTGGAAGAAGTACCCAGTCCATTTGGAGAG  
TTAAAACTGTGCCTAACAGAGGTGTCCTCTGACTTTTCTTCTGCAAGCTCC**ATGT**TTTTCACATCTTCCCTTTGAC  
TGTGTCCTGCTGCTGCTGCTGCTACTACTTACAAGGTCTCAGAAGTGGAAATACAGAGCGGAGGTCCGTCAGAAT  
GCCTATCTGCCCTGCTTCTACACCCAGCCGCCCCAGGGAACCTCGTGCCCGTCTGCTGGGGCAAAGGAGCCTGT  
CCTGTGTTTGAATGTGGCAACGTGGTGCTCAGGACTGATGAAAGGGATGTGAATTATTGGACATCCAGATACTGG  
CTAAATGGGGATTTCGCAAAGGAGATGTGTCCCTGACCATAGAGAATGTGATTCTAGCAGACAGTGGGATCTAC  
TGCTGCCGGATCCAAATCCCAGGCATAATGAATGATGAAAAATTTAACCTGAAGTTGGTCATCAAACCAGCCAAG  
GTCACCCCTGCACCGACTCTGCAGAGAGACTTCACTGCAGCCTTTCCAAGGATGCTTACCACCAGGGGACATGGC  
CCAGCAGAGACACAGACACTGGGGAGCCTCCCTGATATAAATCTAACACAAATATCCACATTGGCCAATGAGTTA  
CGGGACTCTAGATTGGCCAATGACTTACGGGACTCTGGAGCAACCATCAGAATAGGCATCTACATCGGAGCAGGG  
ATCTGTGCTGGGCTGGCTCTGGCTCTTATCTTCGGCGCTTTAATTTTCAAATGGTATTCTCATAGCAAAGAGAAG  
ATACAGAATTTAAGCCTCATCTCTTTGGCCAACCTCCCTCCCTCAGGATTGGCAAATGCAGTAGCAGAGGGAATT  
CGCTCAGAAGAAAAACATCTATACCATTGAAGAGAACGTATATGAAGTGGAGGAGCCCAATGAGTATTATTGCTAT  
GTCAGCAGCAGGCAGCAACCCTCACAACCTTTGGGTTGTGCTTTTGAATGCC**ATAGAT**CCAACCACCTTATTTT  
TGAGCTTGGTGTTTTGTCTTTTTTCAGAACTATGAGCTGTGTACCTGACTGGTTTTGGAGGTTCTGTCCACTGC  
TATGGAGCAGAGTTTTCCCATTTTCAGAAGATAATGACTCACATGGGAATTGAACTGGGACCTGCACTGAACCTA  
AACAGGCATGTCATTGCCTCTGTATTTAAGCCAACAGAGTTACCCAACCCAGAGACTGTTAATCATGGATGTTAG  
AGCTCAAACGGGCTTTTATATACACTAGGAATTCTTGACGTGGGGTCTCTGGAGCTCCAGGAAATTCGGGCACAT  
CATATGTCCATGAACTTCAGATAAACTAGGGAAAACCTGGGTGCTGAGGTGAAAGCATAACTTTTTTGGCACAGA  
AAGTCTAAAGGGGCCACTGATTTTCAAAGAGATCTGTGATCCCTTTTTGTTTTTTGTTTTTGAGATGGAGTCTTG  
CTCTGTTGCCCAGGCTGGAGTGCAATGGCACAATCTCGGCTCACTGCAAGCTCCGCCTCCTGGGTTCAAGCGATT  
CTCCTGCCTCAGCCTCCTGAGTGGCTGGGATTACAGGCATGCACCACCATGCCAGCTAATTTGTTGTATTTTA  
GTAGAGACAGGGTTTCACCATGTTGGCCAGTGTGGTCTCAAACCTCCTGACCTCATGATTGCTGCTCGGCCTC  
CCAAAGCACTGGGATTACAGGCGTGAGCCACCACATCCAGCCAGTGATCCTTAAAGATTAAGAGATGACTGGAC  
TAGGTCTACCTTGATCTTGAAGATTCCCTTGGAATGTTGAGATTTAGGCTTATTTGAGCACTACCTGCCCACTG  
TCAGTGCCAGTGTCATAGCCCTTCTTTTGTCTCCCTTATGAAGACTGCCCTGCAGGGCTGAGATGTGGCAGGAGCT  
CCCAGGGAAAAAGGAAGTGCAATTTGATTGGTGTGTATTGGCCAAGTTTTGCTTGTTGTGTGCTTGAAAGAAAATA  
TCTCTGACCAACTTCTGTATTCTGTGGACCAAACCTGAAGCTATATTTTTACAGAAGAAGAAGCAGTGACGGGGAC  
ACAAATTCTGTTGCCTGGTGGAAGAAGGCAAAGGCCTTCAGCAATCTATATTACCAGCGCTGGATCCTTTGACA  
GAGAGTGGTCCCTAACTTAAATTTCAAGACGGTATAGGCTTGATCTGTCTTGCTTATTGTTGCCCCCTGCGCCT  
AGCACAATTTTGACACACAATTGGAACCTACTAAAAATTTTTTTTTTACTGTTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1440**

MFSLPFDVLLLLLLLLLRSSEVEYRAEVGQNAYLPCFYTPAAPGNLVPVCWGKGACPVFECGNVVLRTDERDV  
NYWTSRYWLNDFRKGDVSLTIENVILADSGIYCCRIQIPGIMNDEKFNKLVIKPAKVTPAPTLQRDFTAAFP  
MLTTRGHGPAETQTLGSLPDINLTQISTLANELRDSRLANDLRDSGATIRIGIYIGAGICAGLALALIFGALIFK  
WYSHSKEKIQNLSLISLANLPPSGLANAVAEGIRSEENIYTIENVYEVEEPNEYCYVSSRQQPSQPLGCRFAM  
P

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**FIGURE 1441**

TCGACCCACGCGTCCGACTTCGGAACTGAATAAGGTGATTAGTGACCTGACTCCAGTCAGTGAGCTTCCCTTAA  
CAGCCCGACCAAGGTCAAGGAAGGAAAAAATAAGCTGGCTTCCAGAGCTTGTCGGTTAAAGAAGAAAGCCCAGT  
ATGAAGCTAATAAAGTGAAATTATGGGGCCTCAACACAGAATATGATAATTTATTGTTTGTAACTCACTCCATCA  
AGCAAGAGATTGTAAACCGGTACAGAATCCAAGAGATGAGAGAGGACCCAACATGGGGCAGAAGCTTGAAATCC  
TCATTAAAGATACTCTCGGATTTGTCCTACAGCTTAGTATTGTGGTTGACAGCGATACTAGGGCTGACAGCACAG  
AAGTCACAAGAGAAGAGTGAAGGGCAAGAATTCAAAGCATTGTTCATACAATGTGGCAACCTCTTTTGCATAG

TTGCGTAGGATCCTGTTTGTAAATGCTATCATAAATATTCTGTAGTTTTTTTTTTTTTCTCTCCCAACTGGAGCTAT  
GACACTTTTTATTGGATTCAGTCTTGCTCTTGCTAGAAAGAACTTTATCTTGTTGACGCATGAGCTGTTTAAA  
AATTATCCTATTAAATGTTGGTTAATAGTTGTGCAGTTTTTCATTCAGATGGAAAGGCAATGCAAATTTGCCT  
TTGTTTTCTGTCACCTTCCAACCCCTGAGCACTTCTAGTCAGATACAGATTCATCAGTGTATGCAACATCCTTTG  
TAATTTAAAAATAAAAAAAGATGAAAAAAAAAAAAAAAAAAGGGCGGCC

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**FIGURE 1442**

MREDPTWGRSLKSSLKILSDLSYSLVLWLTAILGLTAQKSQEKSGRARIQSICSYNVATSFA



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**FIGURE 1443**

AAATTTTTTCTACTAGCTACTGAGGCTGCCACATCTGGATGGAAGTGAAGTGGAGGGGGAAAAGAATGAAAAAC  
TCAAAAGAATTCCCATGAGGGTGTCTTGCTTTCTCTCCTGAGTTACAATACTTTAGCAAAATCATGAGGCTTTAG  
AGATATGGTGTAGTCTGCAAACCTTCTTAATGCCCTTACCCACATTTACCATGTTTCCTGGCCTTCCTCTGTGTCA  
ACTCTTAGCTCTTCCTAATCATTATTTAATACATGAGTGAGTTTAGTAGTGATCATATTTCTCAGGTCCTTTAGA  
AGCTGGAATTTTAAAAGAATTAGAAGGAGGAGTATGTGAATTCCTTGAGAGCTCACTGCCTGACTTGCTTATGACC  
AGGAAAATCTATCCCCTGTATCTAATTTTAATTTTCATGGTTAAATTTGAGAATTGTGGAACCAAGTTCACAAG  
GCTATTCTCATATTTCTCCCAATTTCTTTTTCAGCCAACTCCAAGGATATGTATCACCTTTGACTTAAATTTGCTT  
TCTCTAAGGGAAAGGGGAAAAAATGTTACATAGCTCCACTGCAATGTTTTTATAATAGAGGAGAGATATTGTA  
AATAGAGACTGCCAGCCAGTTTCCACAAAAAACGAAGAGTTCATAAATTTGACATGTTTGAACCCATAAAGCAT  
TTTCTTTGCTTGGAACCATTTATAAAAGTAAGTGAGTTTTCAGGCTCTATATACATTTTAATTCCTCACGTTTTAT  
ATTGGAGAGTTTCGGTACAGACTGTCCATTACTGCACCAAAAGAATGAGTGAAGTGTACCTATAGGGAAAGAACA  
CTTCTTCTTCCTGCTGTTTGGGAACCATCTCAGTGTGGCGTAATGGTTAGGAGTACAGATTCCAGATCCTGTTTC  
TTAGATTTAAATCTTGACTCTGCCACATACTAGCTGTCTGACTGAACCTTGGNNNNNNNNNNNNNNNNNNNNNN  
NNNNNNNNNNNNNNNNNNNNCAGTACTTACCTCATAGAGCTGTTGTGAAAAGTGATGACTGAATATGTAAAAGCAC  
CCTAGAAACAGTGCCTGGCACATGCTAAGTGCTTTGTTTCATTATTGTTGTTATTATGTAATTTTCTCTCAGACTG  
AGAGCACTGTTAGTGACCCAAGTAAATTTATAGTTTTTAAAGTACAGAGGAAAAATAAAGCCTATTTTTTGTTAAC  
AGTCTTAATAAATAATAAAATGAATAAAGAAACCAAGACCCCAAAAAA

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**FIGURE 1444**

MTRKIYPLYLILISWNLNRIVETKFKAILIFLPISFSANSKDMYHL

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**FIGURE 1445**

[illegible]

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**FIGURE 1446**

MFCHLGDKSSCXX  
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXQ

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**FIGURE 1447**

TCATCAGCACAGCAATAGATCTAACGTTCCCGCCAGGGGTACTGGTCAGCGTTGGTTCTTTAGAAAGCCTGTGTA  
GAATCGATTAAAAATTGCTCAGCACTTACTACAGCCATTTTCAACCAAGAAAAAATAATTTTCGGGACTCACTT  
ATATTCCACAGTTTAAATATGGACAATTAATAGGTCAAGGTCCAGGCTGGAAGGGGACCACTTCGAATCTTGAAT  
GCAGGGGCAAACAGCTCAAGACACCATGGCTGATGAAGACGCTATGTACACGCTTTCAGTATGAAAACCAATGA  
GCTACATGGGGCTGGCGAACAC

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**FIGURE 1448**

MKTNELHGAGE

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**FIGURE 1449**

AAAACCTTGAGGTGATTCACTTCCAGGCTCTCCTTCCATCAAGTCTCTCCTCCCTAGCGCTCTGGGTCTTAAT  
GGCAGCAGCCGCCGCTACCAAGATCCTTCTGTGCCTCCCGCTTCTGCTCCTGCTGTCCGGCTGGTCCCGGGCTGG  
 GCGAGCCGACCCCTCACTCTCTTTGCTATGACATCACCGTCATCCCTAAGTTCAGACCTGGACCACGGTGGTGTGC  
 GGTTC AAGGCCAGGTGGATGAAAAGACTTTTCTTCACTATGACTGTGGCAACAAGACAGTCACACCTGTCAGTCC  
 CCTGGGGAAGAACTAAATGTCACAACGGCCTGGAAAGCACAGAACCCAGTACTGAGAGAGGTGGTGGACATACT  
 TACAGAGCAACTGCGTGACATTCAGCTGGAGAATTACACACCCAAGGAACCCCTCACCTGCAGGCCAGGATGTC  
 TTGTGAGCAGAAAGCTGAAGGACACAGCAGTGGATCTTGGCAGTTCAGTTTCGATGGGCAGATCTTCCTCCTCTT  
 TGA CT CAGAGAAGAGAATGTGGACAACGGTTCATCCTGGAGCCAGAAAGATGAAAGAAAAGTGGGAGAATGACAA  
 GGTTGTGGCCATGTCCTTCCATTACTTCTCAATGGGAGACTGTATAGGATGGCTTGAGGACTTCTTGATGGGCAT  
 GGACAGCACCCCTGGAGCCAAGTGCAGGAGCACCACTCGCCATGTCCTCAGGCACAACCCAACTCAGGGCCACAGC  
 CACCACCCCTCATCCTTTGCTGCCTCCTCATCATCCTCCCCTGCTTCATCCTCCCTGGCATCTGAGGAGAGTCCTT  
 TAGAGTGACAGGTTAAAGCTGATACCAAAGGCTCCTGTGAGCACGGTCTTGATCAAACTCGCCCTTCTGTCTGG  
 CCAGCTGCCCACGACCTACGGTGTATGTCCAGTGGCCTCCAGCAGATCATGATGACATCATGGACCCAATAGCTC  
 ATTCAGTGCCCTTGATTCTTTTGCCAACAATTTTACCAGCAGTTATACCTAACATATTATGCAATTTTCTCTTGG  
 TGCTACCTGATGGAATTCCTGCACTTAAAGTTCTGGCTGACTAAACAAGATATATCATTTTCTTTCTCTCTTT  
 TGTTTGAAAATCAAGTACTTCTTTGAATGATGATCTCTTTCTTGCAAATGATATTGTGAGTAAATAATCACGT  
 TAGACTTCAGACCTCTGGGGATTCTTTCCGTGTCCTGAAAGAGAATTTTAAATTATTTAATAAGAAAAAATTTA  
 TATTAATGATTGTTTCCTTTAGTAATTTATTGTTCTGTACTGATATTTAAATAAAGAGTTCATTTCCCAAAAAA  
 AAAAAAAAAA

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**FIGURE 1450**

MAAAAATKILLCLPLLLLLSGWSRAGRADPHSLCYDITVIPKFRPGPRWCAVQGQVDEKTFLLHYDCGNKTVTPVS  
PLGKKLVTTAWKAQNPVLREVVDILTEQLRDIQLENYTPKEPLTLQARMSCEQKAEGHSSGSWQFSFDGQIFLL  
FDSEKRMWTTVHPGARKMKEKWENDKVVAMSFHYFSMGDCIGWLEDFLMGMDSTLEPSAGAPLAMSSGTTQLRAT  
ATTLILCCLLIILPCFILPGI



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**FIGURE 1451**

CTGGGGTTGGCAGTCTGCTTAACAAGAXGCTGGGACCACCTCTGAATTAGTGAATCAGGGAGCTGCTGTGTGATC  
CCCTCCTCCAGGCTTTCTTGGAGTTTGTCTCTGCCACTTCCTCAAGCCCTTTAAAAAGGCTCCTGTGCTTTAGAG  
AGTWAGGATGTAAATGACCGTTCTTTTTCTTGTACTTTATTAAGTACTAGTCTTACTAGACTAGTGCTTAAGTG  
GCAGTGTCTGCCTTTGCCCTTCTCCCATCTCTTTATGCTCCTTTCTTCCAACCTTCTCACGTTTCTGTTTCTCGCAC  
GGCCAGGTGTCCAGCATCCCATGCTGACTTGCGGTTGGCCAATCCCTCCTCGTAGATTTCTCCACATTTTCCT  
CTTCCTCCTTTTCCTGTGGGAAGTTCTTTTTCTGGGCTGTGGCTGGTCTTACGTAGTTCGGTGGAAAAAGTATTG  
AGGTAGTGTTAGATACTGTGCTGCACCTCCAGGAGTGTCCAATCTTTGGCTTCCCTGGGCCACACTGGAACAAG  
AAGAACTGTCTTGGGCCACACGTAAAATACACGGACACTAACGATAGCTGATGAGCTAAAAAAAAAAAAAAAAAAAA

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**FIGURE 1452**

AACAATGGATATTCTGTAAATATCCTGTACAAAACAAGACTATTGCCAGTAATGTATACAAATTGTCTTTTTGT  
GTACTTCCAGCATAGGTTTGGATATATGAACATTTTTCTTTTATTGTTTTATCTTCACAGAAAATAAAAGGTGTT  
AATTTGCTTTTTAAAACAAATTTAATTATCACATTTTAAATTACTTTGTGGACTGTGTTTTCAAACCTTGCAAA  
TTCATCTGTTACACAGAAAATTTTGACTTAAACATCTGCTGAATTCCAAATTTCTGTAATAGCTACTGTATCTG  
TGATAAACTTTTCTATATCTTTCTTGCCATTTCTATGGATTTTATAATGAAAGAAAAAGGCATTGGAGACTGAA  
GGCAGAAATGGTTGTGACAGTGCTGTTTGGCTTTTTCAATCTTCAAATGCCAAGTCATCCACTTTGTTTTCTGT  
TTAGGCTTTGCACAAATACAATTGCTTTTCAAGGAATCCTAAAGCAGCATTTTATTGAGTTTGAATTATTAAAGGTA  
CAGAGGAAATGTGGTGATGTAGAATTTTCTAACACAGGTATCTAGGAAGTAAGTGCTGAGTTGATTTTCTAGG  
TTCTTACGTATTTGAAAAATAAAATTGCAATTCGAGATAAGTGCTTGAGCACTCTACTTAAGTATTCTCTGTGTT  
TTATGAAGAGAAAATGATCTGATTTTCCCTTATACTTCATTTTACAATACATATTTCCCTTTTAACTTAAAAAAT  
TGTAATGTGGGAGAAAAAACCTGCAGGATGGAAACAATTATTAAGAATGTAGATCAATAAGTACTTTTTAGTG  
ATGTGGCAGAAATCCCTGTTGATTCTAAGTTTTAGAGTGCTTTTCCCCTATTTCTGACCTACAACCTATAAACTA  
CTCTCTATTAGGAGAACTAGACCACTTTCTTTCATTTCTTTTCTAACTGCTGCAGATTGCCGTGAACCTCTATCAAT  
AGTCTCTTTTCCGCAGGCAAAGTGCCATTTTCTAAACATGTTTGCTTACTGCCAGGTGGTTTGAAATCTATGATT  
TACTGCAGTAGTATGTGCTTAAACAACCTGTTGAGGTCTTTTAAGCAGGAAAGTTCAAAGGAAGTGTCCTGATA  
ATGGTACTGGTTTTTCTACAAATATTAAGTAGTCATTAGAAGTTTGCAACCACCACCAAGTCTGAGAGAACTCTGG  
GATATTCTGTGGGTTTGGCATATTAGATAGAGAAAATGACAGATCTAGATGAAGGGAGCTTTTGATGTGTGCCT  
TTAAAACTGATTATGTATAAATACTGATATTTACATACGGAGATATTTGAAGACCCAAGTCTGCCTTTCACAG  
AGCCCTCCATTCCAAGTTTAGTTTTTGTCAAAATATGAATCATTTTATTTGACTGTACTATCAGTACACAAATGC  
ATGAGTATGTTTATACAGTGTTAGACTGATGTGAATTTGCATTTGTTACATTACATTGCCAGCGCATATCATTTA  
GCAAGTTGGCATTAAACATTTATGCTTTAATTAAATGCCAGTATACCTATGTGTGCAGCAGTAAAAAATTAGTGAG  
AAAAAGCAACTTTTTGTCACTCTTAGGAAATATTTGTCTTATTAGTGTTCTTGGCACATGTATATTACTAAAGT  
AGATAATTCCAATGAGAAATACTACCAGATTATTGTTATAAAATTAATTTACAATGTCCCTGATATTGAGCTAAC  
TCTTAAAAAAACCAAACAAACTCGTATCTGAGTGTAACCTTGCCAATATTTTAAAAGCCAAAATATTCTCTGGA  
CAACAAATTTGATTGCTCAGGGACAGTTTACCTTGCTGGTAAACCTTCCCAAACAGAAATATAGCTATACTAT  
CTTTGGTTTTGT

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**FIGURE 1453**

MWQKSLILSFRVSFPLFLTYNYKLLSIRRTPLSSFFSKLLQIAVNSINSLFSAGKVAFSKHVCLLPGGLKSMI  
YCSSMCLKQLLRSFKQESSKGSVLIMVLVFLQI

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**FIGURE 1454**

GAGAGCCAGAGGCCACTCTTTATTGCTTTTTTCTCAGGCTTCTGCTTGTGTGATCAGGGNAAGGGATCCACAT  
ATGGGAATGGTTAGTGGCTTTTGGGACTCTCCAGGAGCCTCTGTTTTAAGAATGAGGCCAAATGTGCAGGCTCAG  
GCCAAGCGGCAGAGATGAATGAGGTGATGACCACAGCCTTGATCCGGCAGGAGCTCAGAGATGCCCGGGAAGACG  
GGGGGCCCCGAACGGAAGCAGAAAAACACTTATGGCCGCTGGGAAGTTGGGAGAGCGAGGCTGGGGCTCTGGCAGG  
CCCAGGGAAAGTTCCCTGTCTAGGCTCTTTATTAAAAAATTTAAAAGGAGGAGTTGAGGCACCTTGAATATTCTT  
TCGCGAGTCTTGGAGACTAGCCGATTTTTTCATGAAGCAAGCAAAGACCGCGGTCCCGGATCCTGCAACTTCTACC  
TCATTTTCTCCAGGCCTCTCCACTTGCCCGAGCTCTCAGCCACCAGGAGACAGATGGAAGGGGCTTCTGGATTGC  
GTTGGGAGCGGGCACTGTCCCCTACCCACTCCTGCTCAGTTTCCCAAAGTCCAGCGACTTCCGACCCTCCTTGGG  
GGGAAAAATACCAGTACCCAGACACCTTTGCACCCTGTTATATGACTGGGCTTGCTTCAGGAATATCTTACAAAG  
AAAAGAAGAAGAAAGAACGGCTTGGAGTCATGTTTACATCTAGTTCTACTGATCCGTTACATCTGGAGAGTTTA  
TTTATAACTCCCTCTATAACTCTCTGTTTGGAGACACTGTGGCTCTATTGACAGACTGATATCTAGGAAATATTG  
CTCTATGTCTAACCGTACCTAAATGTGCTGTGGTTGTATTTACAGATTTATGTTTGAGGGAAATATAACTATTTT  
CATTGTATTTGTGCATATACAGTAGTTATAGGAGCAGATTTATATATGGGAAAATATACGACTCTCTTACAGCCA  
TCCAGCTTTATGTACATTTGATATCCTGACAGATTTATATCTCTGAACAGCTATATTGATCAAAACGTATATTGT  
TAGAATTAATGTGTCCGAAGATTTTTTCTTATT

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**FIGURE 1455**

MKQAKTAVDPATSTSFSPGLSTCPSSQPPGDRWKGLLDCVGSGHCPLPTPAQFPKVQRLPTLLGGKNTSTQTPL  
HPVI

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**FIGURE 1456**

CTGCGCCTGGCGTCACCGACCGGTGCGGACAGGAAGAGGCTCTGGGCTGGCACATGTGTATGGCGGTGAGGCGGG  
CGGGTAC**ATG**GCGGGGCTCTGTGGGACTGGCGTTGTGCGGGCAGACGTTGGTGGTGCGGGGCGGCAGCCGATTCCCT  
GGCCACCTCCATAGCAAGCAGTGATGATGACAGCCTCTTCATCTATGACTGCAGTGCTGCAGAAAAGAAGTCACA  
AGAAAATAAAGGGGAGGACGCGCCCTTGGACCAGGGGAGCGGTGCGATTCTGGCGTCCACCTTCTCCAAGTCTGG  
CAGCTATTTTGCTTTAACCGATGACAGTAAGCGTCTGATTCTTTTCCGTACAAAACCATGGCAATGTCTGAGTGT  
CAGGACCGTGGCAAGGAGGTGTACAGCCCTGACTTTCATAGCCTCGGAGGAGAAGGTCTTGGTGGCCGACAAGTC  
TGGAGACGTCTACTCCTTTTCGGTGCTGGAGCCACACGGGTGTGGCCGTCTAGAGCTGGGGCACCTGTCTATGCT  
GTTAGATGTGGCTGTGAGTCCTGATGACCGCTTCATCCTCACTGCCGACCGGGACGAGAAGATCCGAGTCAGCTG  
GGCCGCGGCGCCCCATAGCATCGAGTCCTTCTGCTTGGGGCACACAGAGTTTGTGAGCCGTATCTCCGTGGTGCC  
AACTCAGCCCGGGCTGCTTCTGTCTCCTCTGCTGGGGACGGCACCTGAGGCTCTGGGAGTACAGGAGCGGCCGCA  
GCTGCACTGCTGTACCTGGCCAGTCTGCAGGAGCTGGTGGACCCCCAGGCCCCCAGAAGTTTGCCGCGTCCAG  
GATTGCATTCTGGTGCCAGGAGAACTGCGTGCGCTCCTGTGCGACGGCACTCCTGTGGTCTACATCTTCCAGCT  
GGACGCCCCGACAGCAGTGGTGTACAGGCAGCAGCTGGCGTTCCAGCACCAAGTGTGGGACGTGGCTTTTGA  
GGAGACCCAGGGGCTGTGGGTGCTCCAGGACTGCCAGGAAGCCCCCTGGTGCTCTACAGGCCTGTGGGCGACCA  
GTGGCAGTCTGTTCCCTGAGAGCACCGTGTTAAAGAAAGTCTCTGGTGTTCTTCGTGGGAAGTGGGCCATGCTGGA  
AGGCTCTGCCGGCGCAGACGCCAGCTTCAGCAGTCTCTACAAGGCCACGTTGACAAACGTGACCTCCTACCTGAA  
GAAGAAAGAGGAGAGACTGCAGCAGCAGCTAGAGAAGAAGCAGCGCGCCGGAGTCCCCCGCCTGGGCCCCGACGG  
GCATGCCAAGAAGATGAGACCGGGGGAGGCGACGCTAAGTTGCT**TGAT**CGTGGCGGTCTGTTTCTGTGCGACTGTGG  
ACCACTTATGTGCGATCCGTGGACCACTTGCGTGCGATCTGTGCGCCGACGATGAGCTTGTTCGGATGTAGCTCC  
ATCGTAAGTCGAGGAGCATCTGTGATTTGTCCTCTGCTTATGGGATATGTTTTCCGCTACTGAGTCTGTGTAGT  
AAATTTTTGACTAGGAA

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**FIGURE 1457**

MAGSVGLALCGQTLVVRGGSRLATSIASSDDDSLFIYDCSAAEKKSQENKGEDAPLDQGSGAILASTFSKSGSY  
FALTDDSKRLILFRTKQWCLSVRTVARRCTALTFIASEEKVLVADKSGDVYSFSVLEPHGCGRLELGHLSMLLD  
VAVSPDDRFILTADRDEKIRVSWAAAPHSIESFCLGHTFVSRI SVVPTQPGLLLSSSGDGT LRLWEYRSGRQLH  
CCHLASLQELVDPQAPQKFAASRIAFWCQENCVALLCDGTPVVYIFQLDARRQQLVYRQQLAFQHQVWDVAFEET  
QGLWVLQDCQEAPLVLYRPVGDQWQSVPESTVLKKVSGVLRGNWAMLEGSAGADASFSSLYKATFDNVT SYLKKK  
EERLQQQLEKKQRRRSPPPGPDGHAKKMRPGEATLSC

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**FIGURE 1458**

GCTGACACCTGCCCAGTGGAAGCTGGCATCCCTCCCCTTGTGGGTTTCAGAGCTGCAAGAAGCACCAGGCTCGGCC  
ACTTCAGAAGCCCCAGCCTCGACCTAGCCACCCTCTCAGGGCCACAGTGCAGAAGCCTGCACACCTGCCAAGTC  
TCTCCGACTCCTTGCAGCTGCTGTCAGC**ATG**GGCCAGGCTCCTGCTGACCCGGGCAGAGAAGGCCACCTTGAACA  
AAGAATCCTGCAGGTGCTGACAGAGGCTGGCTCCCCGGTGAACTTGCCCAGCTGGTGAAGGAATGCCAAGCACC  
CAAGAGGGAGCTCAACCAAGTCCTCTACCGAATGAAAAAGGAGTTGAAAGTCTCCCTCACATCCCCTGCCACCTG  
GTGCTTGGGCGGGACTGATCCTGAAGGCGAGGGTCCTGCAGAGCTGGCCTTGTCAGCCCTGCCGAGAGGCCCCA  
GCAACATGCAGCTACAATTCCAGAGACCCCTGGCCCTCAGTTCAGCCAACAACGGGAGGAAGACATCTACAGGTT  
TCTCAAAGACAATGGTCCCCAGAGGGCCCTGGTCATCGCCCAAGCACTGGGAATGAGGACAGCAAAAGATGTGAA  
CCGAGACTTGTACAGGATGAAGAGCAGGCACCTTCTGGACATGGATGAGCAGTCCAAAGCATGGACGATTTACCG  
CCCAGAAGATTCTGGAAGAAGAGCAAAGTCAGCCTCAATTATTTACCAGCACAAATCCAATCAACATGATCTGCCA  
GAATGGACCCAACAGCTGGATTTCCATTGCAAATCCGAAGCCATCCAGATTGGACACGGGAACATCATTACAAG  
ACAGACAGTCTCCAGGGAGGACGGTTCCGCCGGTCCACGCCACCTCCCTTCAATGGCACCAGGTGATTCTCAAC  
TTGGGGGACCCTAGTTGATCCCTGGGGGCCCCAGGACATCCACATGGAGCGGTCCATACTGAGACGGGTGCAGCT  
GGGACACAGCAATGAGATGAGGCTCCACGGCGTCCCGTCCGAGGGCCCTGCCACATCCCCCTGGCAGCCCCC  
AGTCTCTGCCACTGCTGCCGGCCAGAAGCTTCGTTTGAAGCAAGAATTCCCAGTCCAGGAACCTCACCTGAGGG  
GGAAGCCGCCCAGAGAATCCACATGAAATCGTGCTTTCTCGAGGACGCCACCATCGGCAACAGCAACAAAATGTC  
TATCAGCCCAGGGGTGGCTGGCCAGGAGGAGTCGCAGGGTCTGGAGAGGGGAGCCAGGGGAGGACGCAGGTGC  
TCGTCCCGCAGACACACAATCCAGAAGTCACTTTCTCGAGACATTGGTCAGCCCATCACTCCCAGCCACTCGAA  
GCTCACCCCCAAGCTGGAAACTATGACTCTTGGAACAGGAGTCACAAAGCTGCAGAAGGCAGCCACTATGTGGA  
TGAAGCCTCACACGAGGGGAGCTGGTGGGGAGGTGGGATT**TAGT**GCACAGCCTCACGTGGGGCTTGACACAGGC  
TGGGGGTGGGCGCATGCTAGGGAGACTAGCCTGCTGCTCTCTGCATTCCCTTAGCGTCTTGTGTTGACCTGCTTGCT  
TCCAGACATAACCTGCATGAATCAGTTTTGGGGGAATGGACCTGGCATGGGGATGGGTTTCAGGCCAGGTCTTTTG  
ATGGCCAGGAGTAGATGACAGGGAGTTGCCTTGGGGAACCTTTGGTGTGCCAAGAGGAGGTGGGTAGATGGGAGT  
GGGGCTCGGTCCCCCAGGCCAGGGGACTCTCTCCACTCTTTCTGGGCTCGGGGCATCTGCCTGGAGTTACCTT  
CCATCATGGCTACCTGCTGTGGTTTGAATGTTTGAAGTCCCAACAAAATTCATATCAAAACATAATCCCAACTGGG  
TGCAGTGGCTCACGCCTGTAATCCCAGCACTTTGGGAGGCCGAGGCGGGCGGATCAATAGGTGAGGAAATCCAGA  
CCGTCTGGCTAACATGGTGAAACCCCGTCTCTACTAAAAAAAAAATACAAAAAATTAGCCGGGCGTTGTGGCG  
GGCACCTGGAGTCCAGCTACTCCGGAGGCTGAGGGAGGAGAATGGTGTGAACCCGGGAGGTGGAGCTTCCAGTG  
AGCCGAGATCGCGCCACTGCACTCCAGGCTGGGCGACAGAGCGAGACTCCGTCTCAAAAAATAAATACATAAAT  
AAAAAATAAACCAACCATAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA



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**FIGURE 1459**

MAQAPADPGREGHLEQRILQVLTEAGSPVKLAQLVKECQAPKRELNQVLYRMKKELKVSLTSPATWCLGGTDPEG  
EGPAELALSSPAERPQQHAATIPETPGPQFSQQREEDIYRFLKDNGPQALVIAQALGMRTAKDVNRDLYRMKSR  
HLLDMDEQSKAWTIYRPEDSGRRRAKSASIIYQHNPINMICQNGPNSWISIANSEAIQIGHGNIITRQTVSREDGS  
AGPRHLPSMAPGDSSTWGTLLVDPWGPQDIHMERSILRRVQLGHSNEMRLHGVPSEGPAHIPPGSPPVSATAAGPE  
ASFEARIPSPGTHPEGEAAQRIHMKSCFLEDATIGNSNKMSISPGVAGPGGVAGSGEGEPGEDAGRRPADTQSRS  
HFPRDIGQPITPSHKLTPKLETMTLGNRSHKAAEGSHYVDEASHEGSWWGGGI

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**FIGURE 1460**

GCAGAATCAATATGTGCACAGTTCTCTTTATCAGGCAAAAACACGTTTATTGAGACATGAAATGAGAATCAGGCT  
GAAGGAATCATGCAGCTGAAGATGATTATATTCATAGAAATGAAGAGATGAAATATTCAAAGAAGATGGCTACT  
TTATTGTGAGACTTACCACTTTAACCTCATATGTTAACAGCACCTACCAAAAAATGATATGAGATAGAGCTAAAA  
TACTGAAATTGCAAAATGGACAAAATAAATCATGAAATTTGTTTATTATTTCTTCAATAAAATATTTCTAGGTGCT  
TTGTGATTCTTTCATTTAGTCATTAAAGCCATTGCTTTACTATATTGCGTTGCCACTTTAAAAACAAGTTACTTG  
ACATTGTTTTTGACAGATTTCACTATATTCTTATGTAATTAATTGATTATTTCTAAAATGTTTGAATAAACTTTG  
TACTCCCTCTAAGGAGTATTTTATTCATTCTTTAATTCCCAAATGAACTTTGAACTTACAGTGCTGTTGAATGC  
CTTGGAAGGACTTCTTGAAATTGCATAAACTATTCTTGTAATGGTAACTTGAGAATTTTCTTTGTTTCTTTT  
TTCTCTATGTCTTAAAGAATGCCTTTAGAATCTAATTCATGTTGTATCAGATAAGAATGTTTCTGTGGTTTCTCG  
TATCAGATGTGTAAAGAAATTATTACTGGGATGCCATTGGCTATGTCTCTTTCCCCTTCATGTAAAAATCCAAG  
TGTCAGTAAACTTCTCTATAATATTTTCTTAAACCATTATATAAATTTGTGTTATAATACTCCAGAAAATCAAT  
GTAATAAGTGGTCATATATATCACCAACTATGGATATCAAAAAGTTGGGGTCACATCAGTGCTATTTATTTAATT  
AAAAACATTGCATATTTCTATTAGCACAACTTCTCTCTAAAAGGTCTGTGTAAGTCTTCTCATCATTATTTG  
ATTGCTGTTATGGGATCCTGTCAAACCTGTGTAATTGTTTATTCTCCATTCCCTCAAATACAAAATTGAGTAGGTT  
G

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**FIGURE 1461**

QNQYVHSSLYQAKTRLLRHEMRIRLKESCS

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**FIGURE 1462**

TCATTTTAAAGAGACTCCTGCTATGTTGCACAGACTTGTGAATTCCTGGTTTCAAGTTATCTTTCCCCCTATGT  
CACTCAAGTAATGTGGACTACACTCATGTGACACCATGCCCATCTTTATGTTGTGTATCTTATTTTGTGTTTGT  
TTACTCTTGAATCAGCTCAGTCTGAAAATCTGTCTTTTAATTCATGGGGATTTTTTAGAATGATTTCTTGGAGGG  
TTTTGTCTTTGAATGTGTGGTCCCTTCTCTGCCTAGAACTTTTTTTTTTGAATTGAGAC

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**FIGURE 1463**

MPIFMLCILFLFCFILESAQSENLSFNSWGFFRMISWRVLSFECVVPSLPRTFFFE

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**FIGURE 1464**

TGCCTGGCCTGACATTTTTANAAAAAGTTTTATTTTGACGGCTCTAAACCTCCATGTTATTTTCCAGTGGTGTA  
GAAGGTACCAGCTAAAGTGAACCACTATGTAATATTAGGCCATTCTAAAGGAAAGATGTTCCATGTCATCAGAGA  
TGGTAAAAATAGGCAGGGAAAAAAATCTTTGGTACCAAAGATTACACTTGTGTTTCTACACAGCAAACCATTTT  
TCTTTCATGAAAATAATATATTATTAACATGAATATATTATTTTGCTATTAATGTGAAAGTTGTCTCTAAATATT  
TTTTAATTTTCAAACTCATACTTTATTTTCATTTGAAATGTTTTTCACACCTTTTGCATTACATAATAATTTTGT  
GGAAGCATTTTGGCCCTTTAGAATAAATATTAGATTGATATAGCTGAAATGTGACTTCCAGTTCTTTGATATTCCC  
CTTGTTATTCAAATAGAAATATGGAAATGCTTTATATATTACTGTTAAATTTCTTAGTGCAGAAATAACATTATT  
AATAGAGTATTGTTTTCAAACAGATGATTAATTTCAAGAGGTTTAAACAGTGAAATTGTGTCAATATTTTGCATT  
TAAAATGAATTTAATTGACCGATATTTTCTGTAGTTAAATTTAGTCACAATATCACATATGTTCTTCAAGAAACA  
CATGAAATTATTAATAAAGTAATTAAAAAATTTTTAATGTATAACAGAATTGACCAATAGGCCAGTTTTCTGGTA  
ACTTATGATAGTAGATTGTTTCTTTAGAACTGGGCAGAAAGCTCTGCATTCTCAGTTGTACTTTGATTTCTTATT  
TCTTGGTCAGGCAATTTGAGGAAAGAAGAAATGGCATGGGGAATATATATGTTTTGTTTCTTAGGGAAAACAGTC  
TGAGAAATGAATAAAAAGCATGAANNNNNNNNNNNNNNNNNNNTACCATGGAAAAGGATATTCACAGTAGTA  
CAGTTCTCAATATTTTAAATTAGATGTCATATTTTTTTAATATAGTAAAACCTTGGGATATAGAATATTACATCT  
TTTGAGAAATGTATGTGTCTCTAAGTAAGTAAATCTAATGCGTATAGGAGACTGATAGCTAAAAATGAATGGAAC  
ATTAATGTACTTTTATAATTAAACCTCTTATCTATCAGAAATTGTAAGAGAATAGATACATGTTTTGAATGTAAA  
GTTGAAAAGTCTGGTTTACTGAATAAATTGAAAGTGATTTATAAAATCTAAATTTGGACTACTTGCAAATGATAA  
GCTATTCTAGTAGCCTTTAGTTTTAAATCCAACAGAAATCTAGAAGTCACAAGCAAATATCTTAAAGGTAAAATCC  
ATCTGGGCACTCATTTAAAGTATATCTTAAAAAAGCAGCAGCAAGGTACCTTGCCATTTTTTAGCATATTTTCTTC  
CTTTTTCTTTTTCTTT

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**FIGURE 1465**

PGLTFLXKVLFC TALNLHVIFQWCRRYQLK

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**FIGURE 1466**

GAC TTTGTAAACTGAT TTCAGAGAAGCGATTAAGGAATTGTACTGTCTTTAAACAATATTTAGAAATGCTTCAGTA  
AAAGCATTTTTTAAAAAATTTTTCTAAATGATGTAGTAAATGTACCTAATATAAAAGTTAAGTGGTTTTATTTAATAC  
TTTTCACCTGACCATGATTATGTTATAAATAAGAGGATTTATAGTTTGCATGCCTGATATAATCTATTTAATTC  
CTTTACAAAATTTTTGTACATGAAAGATAAATGTCTTCATTTTACCAGCTACCTCCTTCCAGATTGAATGCTTCA  
GTGCACTTTGATTTTCAAATTGGCTATTATTTTTTAAATGTAATTAACCTTCACAATTTAAATTGAAGGATATTCT  
GATCCTTAGGTTATAAATATGTGACTTGATGGTTTTATGTAACATTCAAGTAGCATGTTTTCTATAACAATATGAT  
AAAAGTTTTGATACATACCTTGTATGTTGCTTGACAGATCTGTTTTAGAAAACATTCCTCTGCCTTTTGAAATGA  
AGCCATGTATTTGAAATTATTTCCCAAACAATTATATCTTAAGCGTGTGCTACATAGTAATCATAGTCATTTTAA  
TTTAGATTATAAAGCTATATTTTAACCTTGAGGTTTGTGAATTTCTTAGACATATTAATGACTTTATAGTTAAT  
GGTGCTCTCAGATTTTATTTTTAAGTTAAAAATTTGCCAGGCGCGGTGGCTCA



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**FIGURE 1467**

LCKLISEKRLRNCTVFKQYLECF'SKSIFKKFF

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**FIGURE 1468**

[illegible]

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**FIGURE 1469**

FPFFLNQRQISDFMNVCHCA

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**FIGURE 1470**

GTTTTCAAAGGCACTCTGTTAGGTGGCATAACAGCCCTGATTAAAAACAGCACTGAACTTAGACATGTTTCATTTT  
TTTCTCTAACCT**TAG**TACCTTTTTTACAGATTGCATATTAACAGCTTATTTTTGCATTTACCTCTGTAAACCCCTCA  
ATCAAAATTTATTTAAAATATTGGGAGCTTTTAGTTTAAAGTGATACCTACTGGCCCTCAAACATCCAGCATT  
AAAAAACTAAGACTGGCAGTGAAATAATTATCAAAATTATAGGAAGAATTTTCATTTAGCCAGAAGTGAATTGAA  
AAATCCATTTGGT

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**FIGURE 1471**

FQRHSVRWHTALIKNSTELRHVSFFSLT

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**FIGURE 1472**

ATGCTTCTTCCCAAGGCAGCATCAAATTTTGAATTAATTTTGTGCTTAATAAGGACTTAAACTGGTACCCAA  
GTCAGAAAGACTCTGCCTCTAATTTTCTGGGGCTTGGGGATGAAGATAAAGTGTTACACCCAGTGTTTGTCCACC  
ACAGTCTGTGGGGCAGAGAGACCCTTCCTGGGACTGAATTCTCAATTTGAAGCACTGTTGTTCAAAGATCTCCCT  
TCTGGGTCTGACAAGAAGAAACATAACCCTTATTTATTGCATTCTTCTGGCTTACATACATTGCCCTCACTAATC  
AATGGACATTTTCAATTTTCACTAATTTTGAAGAGAAGGCCACCATGGAATTTTAATAAAAAATATTATTGAAGA  
GAATTGCCATCATTCTCCATTTTCCCTGAACTACCACAAGCTTCTCAGAATTTTAGACAAATGTTTTTCCCCTCA  
GAACTGAGCATCAGTGCTGCTTTGGAAAAACATTCCATGTGAATACTGTGGTTTCAGTGTCAGGACCTGTACTTG  
GGCAGTTGGCAAGAGAGTGTGCCAGTTTTTTTATTGGGAGATGGGAACACCCAATTTAATTGATGCAATTAGGTTG  
TAGGTTTTTTTACAGTTTTTCTTTTCTTTTCTTTTCTTTTCTTTTCT

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**FIGURE 1473**

MKIKCYTQCLSTTVCGAERPFLGLNSQFEALLFKDLPSGSDKKKHNPYLLHSSGLHTLPSLINGHFSISLLILRE  
GHHGI

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**FIGURE 1474**

GCTCATGTCTAGGCTGAGAGTGAGATAGGAGCCACTGGAAGAATGAGATGATTCAGACAAGAGATTGTAGGAGAT  
TGGCTTATTCTGTTGACAAGATGGTAATCCGACTTATTTTTTGGTTTTTGGTGTGGTGGTTTAGGAAGACAGG  
AACTTCTCCACACCCGGTAGAGTTCAGCTGCCTTTTCATTAGTCAGCAAGCAGTTTTTCCTTTCTCAAGGCAGTC  
CACATCCAGCAAAACATTTGATTAACTGGAAAGCAATACCATTCTCATGCCAGTGTACAAATTACATGAAAGAGC  
ATCATTTTTCTAGTGTCTGAGGATTGGCTGCTTATGGCCAATTTTGGCAGCAAAACGATAGGATTAAAAATAGCT  
TGAAGATGATCTAGTCTTAAATAATATATTTTCATGATGAACTTTCCTTGGGAAAGTGCATCTTTCTGCCTACAAG  
AATCACATGACCCCTTTCAATAATTTATGTAGTAGAGAAAAACACACTATTTCTCATAGAGTTTTTCAGTCATGTG  
CTGTGGTGTGATTGTTTTCTGGACATTCATAAAATTTTATAGTTAACTGAGTTCTCTTTCTGTTTTGTTGCTATT  
TAACGTCCATTGAAAACATGGCTTTCTTTTGCGCATTCTGTTACTTTCAGCTGTACTTTCTAATAAGAATGGATT  
GCCCTTTTAGCAATCTTTGATTGAACTGGTACATTTTCAGATTACTTAAATGTCATCAGGCCACACAGCATACCA  
GGTAACAGAAAGCCATAAATTAATAAATAAAAAAAGGCAAGC



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**FIGURE 1475**

MSSGHTAYQVTESHLKIKKRQ

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**FIGURE 1476**

AGTTAAGTAAATCACCCCAATTTTTCTAATATTTAAGTGAACATTTAAAGATAAGCATTTCCTTAATGTTAATTT  
CTTTTCTTTCATGTAATCTTGTGAGTAGACAAATGATGGTGACTATATTCTGTAATAAGTACATATATTATGATT  
AAAAAAAAAAGCGTGACTATCTGCCCCAAGAGATCATAAGCACTTTGGAGCTATAAACTTCTTGTCTATTTCTA  
CTCCATGGTACTGATATTCTTCTCTCAGATAACCAAACAAAAACAGCTGAATAAAATCAACCATTAATAGTAAA

A

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**FIGURE 1477**

MLISFLSCNLVSRQMMVTIFCNKYIYYD